

anzMLearn
Australian & New Zealand Mobile Learning
Group

anzMLearn
Transactions on Mobile Learning
2013
Volume 2

**The Journal of the Australian and New Zealand Mobile
Learning Group**

Edited by Laurel Evelyn Dyson

First published by:

anzMLearn (Australian and New Zealand Mobile Learning Group)
University of Technology, Sydney
PO Box 123 Broadway NSW 2007
Australia.
<http://research.it.uts.edu.au/tedd/anzmlearn>

anzMLearn is sponsored by the Research Centre for Human Centred Technology Design and based at the University of Technology Sydney, 235-253 Jones Street, Ultimo NSW 2007.

© Copyright in individual articles rests with the authors Shamsul Arrieya Ariffin, Sam Bizri, Laurel Evelyn Dyson, Lindsay Rattray and Umera Imtinan 2013

All rights reserved. Apart from any fair dealing permitted according to provisions of the Copyright Act, Australia, reproduction by any process of any parts of any article may not be undertaken without prior permission of the copyright owner. Enquiries should be made to the individual author directly. Each author's contact details appear at the head of the relevant article.

Transactions on Mobile Learning, Volume 2, 2013.

ISBN 978-0-9875020-1-8

Dyson, Laurel Evelyn (editor), 1952-,



Contents

Laurel Evelyn Dyson (Ed.)	Preface	4
Sam Bizri	Reflections: Train the Trainer in mLearning	5
Lindsay Rattray	Can mLearning Improve Connectivity and Reduce Waste in ESL?	10
Shamsul Arrieya Ariffin & Laurel Evelyn Dyson	mLearning in Malaysian Universities: Local Ethical Considerations for Mobile Phone Use	15
Umera Imtinan	The Teacher's Role in Mobile Learning – Perceptions of University Students in Pakistan	20



Preface

Transactions on Mobile Learning presents articles by mobile learning researchers and scholars from Australia, Aotearoa and our region of the world. It is an annual, peer-reviewed journal published by anzMLearn, the Australian and New Zealand Mobile Learning Group, founded in 2009. It is available as an open-access online journal from the anzMLearn website:

<http://research.it.uts.edu.au/tedd/anzmlearn/publications>.

The primary mission of the journal is to provide a forum for anzMLearn members to share their research findings, experience and insights into mobile learning and the development of sound pedagogical practice around mobile technology. Educational environments vary across the globe and *Transactions on Mobile Learning* creates a means for developing a body of knowledge that is truly applicable to our local context. Articles include evidence-based research, theoretical explorations, critical reflections on practice, and analyses of how mobile learning *is* being implemented and how it *could* be implemented better. It is hoped that it will stimulate further research and improved practice in mobile learning in the Australian and New Zealand context.

This current volume is interesting in featuring articles both from Australasia as well as from two neighbouring countries in our region, Malaysia and Pakistan. As such it provides some points for comparative analysis of mobile learning across this part of the world and fulfils the aims of the journal in fostering a regional view of mobile learning research and practice.

Peer Review Process

All papers were double-blind peer reviewed by experienced members of anzMLearn. Authors have acknowledged their manuscripts to be original and not previously published elsewhere. The editor thanks the reviewers for their time in undertaking the reviews and making suggestions for improvement of the articles prior to final publication.

Laurel Evelyn Dyson
Editor-in-Chief
Transactions on Mobile Learning



Reflections: Train the Trainer in mLearning

Sam Bizri

University of Sydney Business School
Sydney NSW 2006 Australia
S.Bizri@econ.usyd.edu.au

ABSTRACT

This paper presents the researcher's own reflections on the learning process of "how to create mobile learning" through a series of blended training workshops. The workshops were aimed at instructional designers, learning and development trainers and other practitioners in the training field who were interested in developing successful mobile learning projects. This paper provides a reflective account of what was learned from conducting the workshops over a two year period, what were some of the immediate challenges and the recommendations for further improvements posed by the attendees. A key finding was that learners' prior experience of the new technologies varied widely, as did their skills in using the technology to deliver courses. Therefore, the training had to be grounded in highly personalized learning goals.

Keywords

eLearning, mobile learning, learning management systems, MOOCS, mLearning tools, learning mLearning

INTRODUCTION

There are many challenges when designing training courses involving the latest technologies. These challenges are even greater when the focus of the course is itself learning how to deliver training using these technologies. It cannot be assumed that all participants will have the same technical skills or understandings.

The purpose of this paper is to provide some insights into the delivery of a train-the-trainer workshop in which training professionals learn how to design courses using educational technology. The evolution of the workshop from one with primarily an eLearning focus to one in which mLearning and social media tools have come to play an increasing role is described, including the pedagogical rationale for mLearning design decisions and the various challenges that participants face, which must be taken into account in the delivery of the course.

DEVELOPMENT OF TRAIN-THE-TRAINER WORKSHOPS

Firstly, a workshop was created back in late 2011 called "E-Learning Course for Your Business" as an initiative for the Centre for Continuing Education at the University of Sydney (CCE, n.d.). The workshop mainly focused on how to develop eLearning for business owners utilising some of the most common eLearning tools on the market. The course was developed as a blended approach with face-to-face meetings in the computer lab, and set homework tasks and online participation. The audience were all adult learners, experienced managers, instructional designers and training professionals who needed to upgrade their skills in the field of eLearning. The primary enrolments were predominantly females from corporate organisations, government, higher education and business owners, and this enrolment pattern has continued in subsequent years (Table 1). The workshops were an instant success with participants wanting more. Their feedback requested

extended days to allow a) further hands-on development for exploration and learning; and b) more time to cover in depth theoretical and pedagogical approaches to eLearning.

Table 1. Enrolments in the Training Workshops Conducted in 2012 and 2013

	Year	Enrolments	Males	Females
Course 1	2011	12	2	9
Course 2	2012	7	1	6
Course 3	2012	7	0	7
Course 4	2012	11	4	7
course 5	2013	18	1	17
Course 6	2013	18	6	12
Total		74	14	49
Average		12.3	2.3	9.7

As a result of the positive reception of the initial workshops, they were continued in subsequent years. In 2012, the focus from both the instructor and the learners shifted to include mobile technologies (mLearning) and how this could be integrated into a learning management system (LMS) using open source products. The wireless access in the labs, access to the LMS Moodle (moodle.org) and learning materials were all provided by the college as part of the enrolment cost. Although in 2013 the workshops were conducted only twice due to instructor availability, the enrolments literally doubled from the previous year. In 2013 participants were expected to bring their own mobile devices (BYOD) to the workshops, These included smart-phones, tablets and iPads, which added to the complexity of the learning in such a small timeframe. In 2014 the plan is also to include the investigation of trending topics such as mobile MOOCS (massive open online courses) using systems such as Coursesites by Blackboard Inc.

THE APPROACH

The approaches used to train the trainers on mLearning and inform their own training practice were based on the “design principle for mobile learning” developed by Herrington, Herrington and Mantei (2009). This outlines the use of mobile technologies to develop new ways of teaching and learning. The main principles included real world relevance; mobile contexts; providing time for exploration; blended technologies; and, lastly, “whenever, whoever and whomever”.

Is it Real?

In order to engage the participants, real life examples, problems, challenges, investigations and exploration were developed and discussed in the workshops as mobile learning occurred. This allowed the workshop participants to develop deeper understandings and hopefully they would be equipped to develop successful mobile learning outcomes for their learners. For example, participants had to develop short video or audio clips outside the class timeframe as examples of mobile learning objects that were then tested in class by their peers using mobile technology (iPads and Smartphones)

Are the Leaner’s Mobile?

This was the most interesting to observe when the participants were learning how to create mobile learning tasks for their students. There was the consciousness that the learning objects being developed would need to be accessed by all different types of mobile devices, such as Smartphones and tablets, and not just from a desktop or laptops. So this meant that developing tasks that supported

the learners being on the move was the major aim. This was a challenge for most as they were used to developing tasks for in-class situations.

Time to Play

The general feedback was, “We need more time”. It was apparent that some participants had great ideas about how to deploy the technology; however, it was also clear that some did not. The main feedback from all participants was that the workshops were not long enough for them to practice, reflect or develop more meaningful eLearning or mLearning tasks. This was due to the fact that the main course was developed as an introductory entry point only. Further intermediate or advanced workshops were needed to allow participants time to explore the vast technological features in the development tools, social media tools and the affordance of using mobile devices for learning. For the time being, the success of the workshops was due to the variety of learners’ backgrounds and experiences brought forward to the lab and the ways in which learning was being shared amongst their peers, both in class and online. The sharing of information and the use of group tasks for the new eLearning learners was an approach that built confidence and gave them an understanding of when and how to use the available tools. The feeling was that “we are all together” on this learning journey.

To Blend or Not to Blend?

Observing the success of the participants in both learning situations (classroom and online) pointed out that using the blended approach could be a successful way of building a sustainable, creative online learning environment that connected to mobile learning. The learners’ collaborations, both in class and outside the class, on small projects using Dropbox or Google Drive were some of the good examples of using such mobile technologies in group tasks.

The Three W’s

This is not the WWW as we know it. Rather the three W’s refers to the need to be conscious at all times when developing mobile learning materials of “Whenever, Wherever, and Whoever”.

Whenever

Wherever allows the learner to be “spontaneous, unanticipated and opportunistic” (Herrington, Herrington & Mantei 2009). This was a challenge for some of the participants – to grasp new ideas in creating learning tasks that could be used in their own domain at any time. An example was students being able to take pictures on a Smartphone and uploading them to social media sites such as Instagram and Pinterest, or using an online digital diary such as Evernote.

Wherever

Traditionally learning is done in formal settings and occurs in classrooms, labs or lecture theaters. Participants were now asked to create mobile learning tasks or objects that could simply be done on the train or waiting for a bus. Checking or participating on discussion forums, or simply reading course announcements or looking up grades on the mobile phone are some of the examples discussed in class. The widespread availability of connectedness meant that learning can occur instantaneously and independently of location. That is the mind frame that the developers need to be in.

Whoever

Mobile learning can occur either on an individual or collaborative basis. Some of the tasks created in the workshops allowed the students to learn at their own pace but also being able to share that knowledge with peers both in class and outside the class settings. This made the learning more meaningful.

THE CHALLENGES

There were several challenges during the workshops and these mainly focused on the level of skill each learner had. Firstly the participants needed to explore a vast number of tools both online and offline in order to make the right decision about developing a learning task. The lack of exposure to

eLearning or mLearning tools posed a challenge to some who did not understand how mobile learning could be integrated with a LMS, for example, to deliver consistent and successful online learning experiences.

Tyler-Smith (2006) describes a conceptual model which identifies the multiple learning tasks that a first-time eLearner must negotiate or deal with immediately and simultaneously on embarking on an eLearning course: (1) negotiating the technology; (2) negotiating the course website; (3) negotiating the course content; and (4) becoming an eLearner. Adapting some of the concepts from this approach to the challenges experienced in the train-the-trainer course revealed the following:

- **Knowing the technology:** Initial challenges that faced workshop participants revolved mainly around the up-skilling and the use of various tools. Osika and Sharp (2002) comment that not only the learner needs to be proficient in mastering the course materials but also to become competent in using a range of technologies and applications. For our participants, many of them firstly overestimated their own computing skills and secondly underestimated the range of skills required to be a good eLearning or mLearning developer.
- **Which toolsets to use?** The educational technology field has a vast landscape of tools to be used in creating learning objects, modules, tasks, and assessments etc. This also includes having the knowledge to work with different formats such as text, graphics, video, audio, speech-to-text, animation, online assessments, social media integration, mobile apps and more. The ideal mLearning creator has a challenge in keeping up with ever changing technologies and consistently upgrading their own skills in the preferred areas of development. A suggested personal learning plan was introduced which was ideal in this situation to manage the learning over a period of time, even after the workshops had concluded.
- **Is mobile learning all about apps?** A major misconception of the learners was that mobile learning was, in fact, the development of a mobile native application (app) for users to download onto their phones or tablets. Several strategies were introduced to the learners, such as developing HTML5 content and/or responsive web pages that can fit on the screen of any device. These strategies were discussed in detail and exposed the participants to different avenues for creating mobile-enabled learning objects, which of course saved on development and ongoing hosting and maintenance costs.
- **Do I need to use an LMS?** Reflecting on the course confirmed that the LMS is an integral part of the success of any mobile learning module as it hosts the main information, allows consistency with course design, controls access and links to assessments; ofcourse it can facilitate an easy-to-follow mobile connectedness to the learning materials. While some of the learners had seen or used an LMS before the workshops, many were only at an entry level and others had no previous exposure. The learners soon found that most mobile learning integrations would need to be hosted or at least driven by an LMS. The workshops discussed various options such as using open source products like Moodle, CourseSites, WordPress and Joomla.
- **Do I need to be a mobile learner myself?** Yes, you do! I have similar issues with other courses such as eCommerce workshops whereby participants want to create eCommerce or mCommerce websites but yet have never bought any products online. Most participants had conducted traditional training in face-to-face mode but not in online mode. This was the most challenging aspect whereby the learner had to abandon their older belief of what it is to be a learner (classroom led) and to adopt new beliefs of online and mobile learning which are based primarily on self-directed and self-motivated learning. This means the learners are isolated from other learners and communication is mostly done through online and mobile devices. The workshop focused on homework tasks which were assigned to participants and needed to be completed between meetings over several weeks.

CONCLUSION

Most learners attending the workshops had different sets of learning goals and experiences that they wanted to achieve. Thus, whether developing eLearning or mLearning, it all has to be about “ME Learning” (Luckin et al., 2005), that is, grounded in personal experiences of learning with new technologies. The participants as educators had a lot to learn: the “ME Learning” would need to be aligned with a personal learning plan and small, achievable outcomes.

What Next?

Most of the feedback from participants expressed an interest in more formal mobile topics. Future workshop improvements that they suggested included coverage of areas such as: introduction to mobile learning, planning mobile learning, developing mobile learning curriculum, mobile learning theory and pedagogy, mobile learning tools and train-the-trainer solutions. The planning phase to push the workshop to a new level in 2014 has been initiated. The plan is to:

- increase the length of the workshop to four days instead of two;
- schedule the workshops more frequently than has been done in the past;
- include a free online learning module to accompany the workshops for students to use as a future resource after the formal workshop has been completed;
- feature real life and successful case studies of how mobile learning is being used in different industries such as higher education, health, government, finance and business;
- create social media integration for the participants to stay in touch and to ask “the experts” by building a community of mobile learners. Such media may include LinkedIn Groups, Facebook Groups, Twitter feeds, etc.;
- and, finally, invite guest speakers (online webinars) to discuss ideas and showcase some of the real mobile learning development taken place in the workforce.

REFERENCES

- Centre for Continuing Education (CCE) (n.d.). E-Learning course for your business. Developed and delivered by S. Bizri, University of Sydney. [Online]. Available: <http://cce.sydney.edu.au/course/CELB> [Accessed 17 October 2013].
- Herrington, A., Herrington, J. & Mantei, J. (2009). Design principles for mobile learning. In J. Herrington, A. Herrington, J. Mantei, I. Olney, & B. Ferry (Eds.), *New technologies, new pedagogies: Mobile learning in higher education* (pp. 129-138). Wollongong: University of Wollongong. Retrieved from <http://ro.uow.edu.au> [Accessed 15 October 2013].
- Kukulska-Hulme, A. (2011). Smart learning with mobile devices? [Online]. Available: <http://blogs.ubc.ca/newliteracies/files/2011/12/Kukulska-Hulme.pdf> [Accessed 17 October 2013].
- Luckin, R., Brewster, D., Pearce, D., du Boulay, B., & Siddons-Corby, R.. (2005). Whether it's M-learning or E-learning, it must be ME Learning: A case study of mobile learning in Higher Education. IDEAS Lab, Human Centred Technology Group University of Sussex Falmer. Available: <http://sro.sussex.ac.uk/404/1/smile.pdf> [Accessed 17 October 2013].
- Muilenburg, L. Y. & Berge, Z. L. (2005). Student barriers to online learning: A factor analytic study. *Distance Education*, 26 (1), 29-48.
- Osika, E.R. & Sharp, D.P. (2002). Minimum technical competencies for distance learning students. *Journal of Research on Technology in Education*, 34 (3), 318-325
- Tyler-Smith, K. (2006). Early attrition among first time eLearners: A review of factors that contribute to drop-out, withdrawal and non-completion rates of adult learners undertaking eLearning programmes. *Journal of Online Learning and Teaching*, 2 (2), 73-85.



Can mLearning Improve Connectivity and Reduce Waste in ESL?

Lindsay Rattray BA BCS
ClassWired
Twitter: @classwired
lindsay@classwired.com

ABSTRACT

After your next class, ask yourself two things: (1) How connected was it to the lives of your students? (2) How much waste was there? In this paper I reflect on the breadth and depth of both the connectivity and waste problems in the English as a Second Language (ESL) context. I then offer directions for how mLearning can be part of the solution. For this to be realised, we need to harness the capabilities of teachers, students, programmers, publishers, writers and more. Finally, I explain how the business philosophy of the 'Lean Startup' can bind these groups together with the best chance of producing a real solution to the problems of waste and connectivity.

Keywords

ESL, English as a second language, mLearning, language learning, digital classroom materials, lean publishing.

INTRODUCTION: THAT NAGGING FEELING

The Problem of Connectivity

We've all experienced it: either observed as teachers or felt as students. It is that moment when you do not wish to learn what is being taught. It happens when the gap between a student and the world of their class does not seem worth bridging. There can be good reasons: not all students can (or should) learn everything. Some of the most successful students focus on what is important to them. However, there are also many bad reasons. Topics may not be interesting, teaching points may not be (or seem) useful to students' lives outside the class. It might be the day after the exam. Regardless, if students are not connecting, then we have a problem. If we give students something that they do not find relevant, how can they learn from it? In the ESL classroom, I call this the problem of connectivity. I choose this term, instead of 'connectedness', because it is intrinsically connected to mobile technology.

Mobiles: Problem or Solution?

Mobile devices make our students' lives more information-connected; without them, our classes are less student-connected. For this paper, mobiles are defined as smart phones or tablet PCs, though for most ESL students it will mean their smart phone. Mobiles produce almost unlimited, personalised information. Internet searches and Facebook feeds are digitally individualised for each of us, based on previous activity. We record and publish our lives through our mobiles. We even use them to get street directions (yet still teach students asking-for-directions because it is in our course books).

To understand how significant this is for our students, I offer a classroom example. The ubiquitous and undying *New Cutting Edge Intermediate* course book has an activity that asks students to write down the most important object they own, and why it is important to them (Cunningham and Moor, 2005, p. 86) Walk into any class of adult, travelling ESL students in Australia and do this activity with them. Most will say their mobile. Prompt them first with an example about a family heirloom

and the difference will be negligible. Tell them they should choose something other than their mobile and you may even get a sigh of disappointment. Yet many of us ask students to put their mobiles away before they start class. When we ask them to disconnect from their mobiles, we disconnect them from their lives. Of course we need students to focus on learning, but by failing to utilise their favourite device we are deliberately disconnecting our classes from our students.

To make it worse, we then present content to our students that is not personalised for them. Scott Thornbury tells us of the 'predominance towards white, male, heterosexual, middle-class, native-speaking representations' in published ESL course books (Hall, Thornbury, Walter, 2013, 12:58). Materials writers often speak of avoiding taboo topics (Bell and Gower, 2013). How, Thornbury asks, can someone connect with the prescribed questions 'are you married? what do you do? and where do you live?' if their answers are 'I'm gay, unemployed, and live on my parents' couch'? (Hall, Thornbury, Walter, 2013, 12:00). It is difficult for learners to connect with books based on so many assumptions about their lives. What if students were delivered content according to their interests and background? This is where mLearning can be part of the solution.

The Problem of Classroom Waste

We've also all experienced classroom waste. Classroom waste might be going through all 10 questions on the board when only 2 needed checking or it might mean waiting for the number of students who've finished an activity to reach quorum. It could be spending class time on something of no relevance (teaching when you have a connectivity problem). Although it is important to distinguish, at the outset, that pause is not waste: time for reflection, demarcation of lesson stages – even silence – are not problems to be solved. Nor are diversions, off-topic, or off-syllabus discussions. However, if we go through homework just to mark the start of class, or just to make us all feel OK that the answer to question 9 is in fact option c (which we had peer-checked anyway), then we need to wonder if our time couldn't be better spent. That is classroom waste.

Waste is often about time. Time students spend unoccupied (as distinct from reflecting or re-processing) can be waste. Students working on exercises far beyond or below their abilities is usually wasteful. Students bored, waiting for their classmates to catch up can be wasteful. At the Love Learning Conference, Lisa Jane O'Connor challenged us to count the 'wait time' in our classes. Her research team defined wait time as the time students spend waiting for the teacher or for other students. They measured, on average, 90 minutes a day of 'wait time' at a primary school (O'Connor, 2013, 11:55). At the conference itself, attendees were all surprised (and disappointed) at our own estimations of wait time in our classes. Yet the waste goes further than just time. Waste is also about missed learning opportunities. mLearning can help with both.

MLEARNING: AN UNPRECEDENTED OPPORTUNITY

mLearning as a Potential Solution

The potential for mlearning has been recognised in the literature and by educators. The reality of its use, however, is still short of its potential.

It is worth noting that for the first time ever

- students' most important possession is a learning, content consumption and creation device
- our students carry a personalising device whose most successful applications (like Twitter, Angry Birds, and Facebook) use our otherwise wasted, short periods of down-time.

In other words, mobiles are already solving the connectivity and waste problems in our lives outside the classroom. We can transpose that solution into the classroom.

Can mLearning Improve Connectivity?

Open a global ESL course book to any page and you will find professional-quality images that have been selected to sell that book to the world. The images may have been researched with students, they may have been selected by an eye knowledgeable of the global ESL market. Yet open your

students' mobiles and you will instead find amateur-quality images that were taken by them to show their friends (their own personal focus group). Given the choice, which kind of image will students connect with? Ask your students to write a sentence in present continuous (e.g. 'She is eating') about the picture on page 78 and they'll do it because we have trained them to do so. Yet if Ahmed shares a picture with the class from Facebook, you may not even need to ask 'What is he doing?' Student content drives spontaneous response, often creating the 'information gap' teachers can use as a teaching opportunity.

However, there is more to mLearning than just ordaining the benefits of student content. Indeed, equally important to giving students a choice over content is understanding and measuring those choices. Run the activity above and give students a choice of pre-loaded images and student-provided ones. Record what students choose. Record student opinion on the content of their choices. Set some practice as homework and measure student engagement. Check knowledge retention with revision. Compare it all back to the original pre-loaded or class-supplied choice and you have a profile of your learners. The mLearning opportunity is about more than just providing students what they want. It is about us, as teachers, learning what actually works, for which students, and responding accordingly.

Can mLearning Reduce Waste?

When a student passes up a chance to use more challenging language, a learning opportunity is wasted. Sometimes all it takes to save this momentary chance is the teacher's eye contact. Yet as teachers we know that once an activity is started, it is very difficult to see where these chances are being lost. We're conscious of not being lost supporting one group to the detriment of another. Yet we try to engage with individuals enough to make the content and class relevant and interesting. The problem is that we lack information about whom to help and when. If we start a brainstorming activity, we do not know what is written down in student notebooks. If we run an explain-the-word-to-your-partner activity, we do not know what words students are explaining (unless we happen to hear it) or how many they have explained. We're surrounded by student output but it is difficult to sift through it, find the teaching opportunities, and be present when they might go begging.

Students working on mobiles would allow teachers to see these opportunities. Simply seeing what question students are on, and how many questions they have answered would make a difference. A simple teacher's dashboard could show us which students are finishing quickly (and may need more challenging work to reduce wait time), which students are slower (and may need help, possibly from a faster-finishing peer), and advise the teacher when particular students are on a particular question (to find an otherwise lost learning opportunity). The key principle is to give the teacher (and the students) just enough information just in time. Too much information distracts from the class, as does too much functionality in given learning materials or apps. It is difficult to hypothesise exactly what is needed and when. To find this out, we need a methodology like the Lean Startup (Ries, 2011).

LEAN ESL

The Case for Change

The Lean Startup movement has taken the 'startup' business world by storm. It is an evidence-based approach to building a product or service. Traditionally, product building – including course book publishing – is sequential and unwieldy. Course books are based on market research, approved, tendered, written, proofed, designed, and published, before we know whether this research was accurate. Each stage in the publishing process depends largely on the completion of the previous one. And it is often difficult or impossible for revelations in later stages to feed back into the assumptions of initial ones. Getting through the entire process takes a long time. Nick Robinson of Eltjam tells us we are lucky if we get it all done in a year (Robinson, July 2013). Indeed, Jan Bell and Roger Gower relied on their own expertise because they simply did not have time to use the feedback from their pilots (Bell and Gower, 2011). Further, what if the graphics chosen do not sell? What if the market says it wants a book that another publisher releases halfway through the process? What if the content

does not have product-market fit? The budget will still be spent and the book still printed. The publishing team will no longer be together – if it ever completely existed at any one point in the process.

There is a faster, more market-responsive, and less risky way. Using the principles of Lean Startup, and powered by the speed of mobile content-delivery, a course book could be built in smaller pieces, and tested along the way. Student and teacher responses could drive a better product-market fit. Content could be more relevant.

Lean Methodology in ESL

A requirement of Lean is getting a small version of a product developed quickly. You use this ‘minimal’ product to test the market and measure their response. This allows you to validate your ideas for little cost, as quickly as possible.

Say a publisher has an idea that the world needs a social media English course book, so ESL speakers can understand Facebook and Twitter. The traditional approach would require expensive (and theoretical) market research before this idea could be tested. A Lean approach would be to write a single activity. Put it into a class and get real feedback. If the activity works at most schools, the idea is tested and appears correct. If it fails then your assumptions may be wrong. Write another activity based on what you learnt, or re-work the original. Continue iterating until you have enough market validation and content to publish your entire book. If content is not relevant – if it fails the connectivity test – then discard or revise it. If content is too difficult or easy – if it fails the waste test – then do the same.

Of course it is a big jump from activity, to chapter, to book. It is also expensive for publishers to maintain the publishing team while they iterate through increasingly bigger (though thankfully de-risked) cycles. So the process has to be as ‘lean’ as possible. Publishing in this iterative manner allows you to produce what is necessary for the success of the product, and only what is necessary. Every aspect is tested along the way. Graphics or no graphics, topical quote or not, song activity or not? These alternatives can be tested against each other and their results compared. This can’t be done with sub-standard materials – such a test would not prove anything – rather the principle is to test minor (but sometimes costly) differences between materials. This ‘A/B testing’ is used widely in the technology business world. Nick Robinson suggests that this way we can avoid building a course book where 20% of the content is responsible for 80% of its success – a different form of waste (Robinson, August 2013). So the publishing team may be more diverse (even more expensive) but it is also more focussed and more responsive. The costs for publishers in moving to mobiles could be minimised with the Lean Startup approach.

CONCLUSION

Connectivity is a growing problem in our classes. Waste is a constant concern. Mobiles delivering personalised, unlimited content to – and from – our students can help reduce both. Materials development can be done using the Lean Startup approach, which can make the publishing process more efficient. This can offer us all better, customised ESL materials that continuously improve over time.

REFERENCES

- Bell, J. and Gower, R., 2011, ‘Writing course materials for the world: a great compromise’ in Tomlinson, B., ed., *Materials Development in Language Teaching*, 2nd edn, Cambridge University Press, Cambridge, pp. 135-150.
- Cunningham, S. and Moor, P., 2005, *New Cutting Edge Intermediate Students’ Book*, 2nd edn, Pearson Education Limited, Essex.
- Hall, G., (chair), Thornbury, S., Walter, C., IATEFL 2013, ELT Journal Signature Event - Published course materials don’t reflect the lives or needs of learners, viewed 7 July 2013, <http://bit.ly/ZVtMXn>.

- Harrison, N., 'Lean ELT Publishing (or, How to publish an ELT course in three months, Part 2)', *Eltjam*, viewed 17 July 2013, <http://www.eltjam.com/lean-elt-publishing-or-how-to-publish-an-elt-course-in-three-months-part-2/>.
- O'Connor, L. J., Love Learning Conference, Personalised Learning, viewed 1 September 2013, <http://bit.ly/Gzz9pl>.
- Ries, E., 2011, *The Lean Startup*, Crown Business, USA.
- Robinson, N., July 2013, 'Agile ELT (or, How to publish an ELT course in three months, Part 1)', *Eltjam*, viewed 17 July 2013, <http://www.eltjam.com/agile-elt-or-how-to-publish-an-elt-course-in-three-months-part-1/>.
- Robinson, N., August 2013, 'The Pareto Principle: what we could, and should, leave out of ELT products', *Eltjam*, viewed 1 September 2013, <http://www.eltjam.com/the-pareto-principle-what-we-could-and-should-leave-out-of-elt-products/>.



mLearning in Malaysian Universities: Local Ethical Considerations for Mobile Phone Use

Shamsul Arrieya Ariffin

University of Technology, Sydney
PO Box 123 Broadway NSW 2007 Australia
ShamsulArrieya.Ariffin@student.uts.edu.au
and

University Pendidikan Sultan Idris
Malaysia

Laurel Evelyn Dyson

University of Technology, Sydney
PO Box 123 Broadway NSW 2007
Australia
Laurel.E.Dyson@uts.edu.au

ABSTRACT

Ethical policies are significant in regulating the use of mobile phones for mLearning. However, in developing countries, such as Malaysia, this area is fairly new. This article discusses research conducted within the Malaysian university system to gain perspectives from academics and students about the use of mobile phones for learning. The research methods used were interviews and focus groups. The findings were grouped according to several themes: concerns about the use of mobile phones inside the classroom; regulation and self-regulation of mobile phone use; banning of mobile phones from the classroom; allowing their use in emergency and special situations; uncertainty about ethical policies for using mobile phones; and worries about students' potential disconnection from social life. Various approaches to regulate mobile phone use were discovered and are discussed in this article.

Keywords

Mobile learning, cultural approaches to ethics, mobile phones, Malaysian universities, developing countries

INTRODUCTION

Despite the emergence of mobile learning (mLearning) in the developing countries of South-East Asia, there has been very slow progress in developing ethical policies for governing the use of mobile devices in the classroom (So 2012). Deriquito and Domingo (2012) state that implementing mLearning strategies on ethics in South-East Asia is still new. This contrasts with the situation in Australia, Europe and the USA, where ethical issues surrounding mobile phone use and mLearning have been discussed for some years (Andrews, Dyson, & Wishart, 2013; Dyson, Andrews, Smyth, & Wallace, 2013; Kukulska-Hulme 2008), and guidelines on the acceptable use of mobile technology in educational institutions are now available (AMTA n.d.; CoSN 2011). These approaches could be applied to the Asian situation but may not be suitable to local context due to different cultural, behavioural and religious norms.

Considering specifically the Malaysian context, the literature indicates the possibility for mLearning ethics to be developed (Hussin 2011). A starting point could be the Malaysian Communications and Multimedia Commission (SKMM), which determines what types of mobile content can be disseminated in Malaysia, with the emphasis on ethical issues such as the portrayal of violence, offensive, morally improper material including nudity and sex, hate propaganda, threatened national security, and the dissemination of false information that can trigger racial disturbances (SKMM Guidelines 2012). Mohamad (2012) is one of the few researchers to have included ethics in her study of mLearning in Malaysia. She highlights some of the ethical implications of mLearning for studying English at Malaysian secondary schools, drawing on interviews with teachers and school officials.

Her suggestions for overcoming problems include the development of acceptable use policies; the raising of awareness with teachers, students and parents regarding appropriate use; and the enforcement of penalties on troublemakers who do not follow the rules for using their mobile phones appropriately. Despite the significance of her study, mobile phone use has still been banned in schools (The Star Newspaper 2012), which has made it very challenging to conduct research on this topic in the Malaysian school system.

This study addresses the issue of ethics and mLearning using a different approach, by obtaining firsthand perspectives from academics and students at Malaysian universities. Since mobile phones have not been banned at university level, this provides a more feasible way of looking at the issue in the current climate. As Mohamad's (2012) research did not collect student opinions, it is hoped the perspectives of students reported here may provide a more balanced view of ethical issues surrounding mLearning and mobile phone use at educational institutions.

METHODOLOGY

A qualitative research approach was deemed suitable for collecting in-depth perspectives from the research participants. Questions asked were open-ended, such as: "What do you think of the ethics of using mobile phones in your classroom?" "Why do you think it is important?" "How do you decide on ethical rules for using mobile phones?" The questions focused on mobile phones since nearly all Malaysian university students own phones, and bring their phones to class with them.

Semi-structured interviews with academics and focus groups with students were conducted at four Malaysian universities, mainly in the public university sector and therefore with a majority of students with a Malay cultural background. The academics and students were from a wide range of predominantly humanities subjects and were recruited by purposive sampling. There were 15 academic interviewees and 127 students in 15 focus groups in this study. The participants' involvement was voluntary. The responses were analysed using thematic analysis (Braun & Clarke, 2006). This study is part of a larger scale data collection in accumulating perspectives on mLearning contributions to the study of local culture (Arrifin, & Dyson, 2012).

FINDINGS

The major themes that emerged from the interviews and focus groups were as follows: concerns about the use of mobile phones inside the classroom; regulation and self-regulation using mobile phones; banning of mobile phones inside the classroom; allowing the use of mobile phones in emergency or special situations; uncertainty about ethical policies for using mobile phones; and worries about students' disconnection from social life.

Concerns about the Use of Mobile Phones inside the Classroom

There were growing concerns amongst the academics of how mobile phones could be used inappropriately inside the classroom. These were worries about what might go wrong if mobile phones were used for classroom learning without the academic taking responsibility to manage the problem. These concerns constituted the issue of not having proper ethical guidelines in place. Some academics noted that students could lose focus on learning during class and believed students would find it hard to focus. For example, concentration could be lost while trying to do two things at once, such as playing videos while at the same time the teacher was lecturing. Another academic believed that students would be caught wasting time on social media, such as Facebook. One of the academics stressed there could be plagiarism. Alarming, according to one academic, students could breach security, such as installing spy software to obtain other people's details and information using their mobile phones; this could threaten the security of people's mobile phones. Another academic perceived that students could misuse recordings to ridicule the lecturer of the subject using mobile phones:

"There are cases where not all students are pleased with their lecturers, therefore the recording by students can be misused for personal interest."

Students commented that their teacher would be annoyed if they saw students using their mobile phones during classes. For example, they agreed with the academics that it was inappropriate to use mobile phones for surfing the internet while the teacher was teaching and would result in the student not being able to focus. However, they knew of students who flouted the rules:

“If mobile phones are used at school you will get caught. There are students who bring mobile phones to school, quietly and unnoticed. We have experienced this. There are rules, but they have been broken. Rules are only rules, and the students won't follow them.”

On the other hand, student participants reported that the elderly were always suspicious of them when using mobile phones. They assumed that students were being unethical and disrespectful towards them when using their phones:

“The elderly find it hard to comprehend us young people using mobile phones.”

Regulation and Self-Regulation Using Mobile Phones

Academics use their own judgment and implementation of rules as educators in order to ensure the classroom is in control and that learning happens when mobile phones are being used. Most academics implemented their own regulations to ensure the students do not breach rules inside the classroom. One academic mentioned they had the power to ensure their classes ran smoothly, with or without mobile phones:

“You have to set the rules. If we want to run discussions in blogs or forums, the students need to follow the rules. If there aren't any rules the students will disobey them and they will be penalised for that matter. One of the ethical policies in my class is: do not discuss the issues of politics or religion. Other things are okay to discuss, as long as you mind your language. Respect other people.”

One interviewee was not worried about the usage of mobile phones by his students, as he said he had trust in his students: *“I allow the students to use mobile phones as it is relating to knowledge”*. An academic indicated that, as long as students do not spam, it would be fine. In the Malaysian culture it is important to be polite and respect other people while using mobile phones for learning.

Students reported they apply self-regulation when using mobile phones for learning by asking permission of other participants, particularly when doing assignments in the field. For example, they obtained verbal permission from an elderly person before taking her photo:

“We as students have taken the time to ask permission from senior citizens before allowing us to take their photos using our mobile phones”.

Banning of Mobile Phones Inside the Classroom

Mobile phones have been seen as an object that will disturb the class, if mishandled. One of the academics who taught cooking banned the use of mobile phones for talking and SMS during class. This academic did not allow students to use mobile phones inside the class in order to minimise interruptions and student misconduct. Another academic stated they could use mobile phones only for fieldwork. Certain academics are very strict, in order to control the class:

“As a Batik Textile teacher, I do not like mobile phones to be used inside the classroom and they must be put into silent mode.”

One of the students indicated their lecturer had made it clear to the students not to use mobile phones in the classroom. Students stated the mobile phone was not suitable to be used in Malaysian schools inside the classroom due to the probability of misuse; however it is more appropriate for mobile phones to be used in the universities.

Emergency and Special Uses

Under special circumstances, such as emergencies, the academics allowed students to use mobile phones. One academic permitted the use of mobile phones in both emergency cases and for disabled students:

“... for special candidates, for example students with a hearing impairment: these students can make their own recording and play it back later. On the other hand, students in family situations might have their own responsibility, for example a younger brother of a sibling can be contacted in emergency cases. They can use the handset in this particular situation.”

Uncertainty about Ethical Policies for Using Mobile Phones

Academics were uncertain whether there were any rules for them to follow for students' learning using devices such as mobile phones. There appear to be no rules on the ethical use of mobile phones inside the classroom and, therefore, this has been a concern for them. Uncertainty about permission to use mobile phones inside the classroom has increased doubt:

“I am not really sure of the usage of mobile phones by the students for recording or for other documents.”

Disconnection of Students from Social Life

Part of the ethical concern in using mobile phones for learning is that students can get disconnected from social life. One academic stated that students could become less social if they were too dependent on the device:

“From the perspective of emotions and social connections it can be a bit of a distraction.”

Some students had the same perspective.

DISCUSSION

The participants in this study were not aware of any ethical policies for mLearning in the Malaysian university context. According to one of the academics, the main priority is to foster mLearning in Malaysia, and an ethics policy will be an important part of this: *“I think it can be solved by installing ethics”*.

It is understood from this study that mLearning could be implemented with students' own mobile phones, however with careful consideration and control, to ensure learning happens and students are not distracted. Two differing ethical approaches emerged from this study: one based on self-regulated mLearning, and the other based on enforced discipline and even banning of mobile phones. Trust and respect for others was emphasised as one of the aspects that should be taken seriously while implementing mLearning in the Malaysian university context. These positive attitudes and cultural values, such as respect for others, particularly the elderly, are an important part of Malaysian society. Adopting a self-regulated approach is in contrast to the sometimes severe penalties for unethical mobile use suggested by Mohamad (2012).

Mobile phone ethics should take into account the needs of disenfranchised users, such as disabled students, having access to better education. This could possibly be achieved by giving those marginalised students access to mLearning (Andrews et al., 2011). In addition, this should apply to improve education for poor students from rural areas in the 'Kampung', or remote villages, in order for them to access mLearning resources.

With respect to the social aspect, participants should not be isolated whilst engaged with mobile phones or get disconnected from the real world they are living in. They should not become antisocial by being overly focused on their devices. In fact, Malay culture highlights the importance of integrating well in society and not isolating oneself. Therefore participants should exercise moderation using mobile devices such as mobile phones and not allow disruption of their healthy social life.

CONCLUSION

It is necessary to have an awareness of using mobile devices ethically for mLearning, and this should be understood by both academics and students. It is interesting that generally the academics and students agreed with each other on major points regarding the ethical use of mobile phones in the

classroom and in their learning. For example, both appreciated the distraction that mobile phones in a class can create. However, students saw a generation gap in that their elders did not really understand their use of mobile phones. Self-regulation within clearly defined limits based on the cultural value of respect for others, was one of the most positive aspects to come out of this study and one which would most likely appeal to both academics and students.

RECOMMENDATIONS FOR FUTURE WORK

The lack of ethics policies to manage mobile device use in the educational system revealed by this study needs to be addressed, with involvement of all parties, including policy makers, academics and students. This study could provide a platform for further discussions in fostering awareness and establishing policy for using mobile phones and promoting mLearning in Malaysia and other developing countries in accordance with their local culture and values. The SKMM Guidelines (2012) would be a good start for policy development in the Malaysian context.

REFERENCES

- AMTA (Australian Mobile Telecommunications Association) (n.d.). *Developing an Acceptable Use Policy for mobile phones in your school*. Manuka, Australia: AMTA. Retrieved from www.amta.org.au/pages/Template.for.Mobile.use.in.Schools
- Andrews, T., Dyson, L. E., Smyth, R., & Wallace, R. (2011). *The ethics of m-learning: Classroom threat or enhanced learner agency? 10th world conference on mobile and contextual learning (mLearn 2011)*, Beijing, China.
- Andrews, T., Dyson, L. E., & Wishart, J. (2013). Supporting practitioners in implementing mobile learning and overcoming ethical concerns: A scenario-based approach. *12th world conference on mobile and contextual learning (mLearn 2013)*, Qatar, 21-24 October, pp. 1-8.
- Arrifin, S. A., & Dyson, L.E. (2012). MLearning for local culture study in Malaysia. *Eighth international conference on cultural attitudes towards technology and communication (CATaC)*, Aarhus, Denmark, 18-20 June, pp. 135-145.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), pp. 77-101.
- CoSN (Consortium of School Networking) (2011). *Acceptable use policies in a Web 2.0 & mobile era: A guide for school districts*. Washington, USA: CoSN.
- Deriquito, M., & Domingo, Z. (2012). Mobile learning for teachers in Asia: Exploring the potential of mobile technologies to support teachers and improve practice. In S. Vosloo & M. West (Eds.), *Teacher focus: UNESCO working paper series on mobile learning* (pp. 1-41). Paris, France: UNESCO.
- Dyson, L. E., Andrews, T., Smyth, R., & Wallace, R. (2013). Towards a holistic framework for ethical mobile learning. In Z. Berg & L. Muilenberg (Eds.), *The Routledge handbook of mobile learning* (pp. 405-416). New York and London: Routledge.
- Kukulka-Hulme, A. (2008). Human factors and innovation with mobile devices. In T. Hansson (Ed.), *Handbook of research on digital information technologies: Innovations, methods and ethical issues*. Hershey, USA: Information Science Reference (IGI Global).
- Mohamad, M. (2012). *Mobile learning in English language learning: An implementation strategy for secondary schools in Malaysia*. Retrieved from: http://eprints.soton.ac.uk/300062/1/Mobile_learning_in_English_Language_Learning_An_implementation_strategy_for_secondary_schools_in_Malaysia.pdf.
- Hussin, S. (2011). *Mobile learning readiness among Malaysian students at higher learning institutes*. Paper presented at the APAC MLearning 2011, Bandung Indonesia.
- SKMM Guidelines. (2012). Content Code. Retrieved from <http://www.skmm.gov.my/Resources/Guidelines/Content-Code.aspx>
- So, H.-J. (2012). Turning on mobile learning in Asia: Illustrative initiatives and policy implications. In S. Vosloo & M. West (Eds.), *Policy focus: UNESCO working paper series on mobile learning* (Vol. 1, pp. 1-32). Paris France: UNESCO.
- The Star Newspaper. (2012). School phone ban retained. *The Star*. Retrieved from <http://www.thestar.com.my/News/Nation/2012/10/04/School-phone-ban-retained.aspx>.



The Teacher's Role in Mobile Learning – Perceptions of University Students in Pakistan

Umera Imtinan

Curtin University, Australia
umera_imtinan@yahoo.com

ABSTRACT

This study investigates students' perceptions of the role of the teacher in a proposed mobile learning environment in a developing country. The research is based on an exploratory case study at selected Pakistani universities using a qualitative data collection approach, such as focus groups. The paper aims to highlight one of the key issues, the teacher's role in the domain of mobile learning, given that mobile learning has been suggested as tending to making students more independent learners since they learn on the move or at work. It was found that students did need a lot of teachers' input throughout the learning process and wanted the teacher to control the learning process, with the exception of a few students who did show interest to be independent learners.

Keywords

Mobile learning, teacher's role, control, self-learning, developing countries

INTRODUCTION AND BACKGROUND

As learning paradigms are taking a digital shift from traditional face-to-face learning to eLearning, mobile learning and other technology-based learning, the teacher's role has been one of the critical topics being debated by the teaching and learning communities (Laurillard, 2007). Particularly, in developing countries, it is more challenging to redefine the teacher's role in a digital learning environment where teachers have had a strong hold and influence on the learning process.

In the mobile learning literature, the term *control* has been frequently used to represent the teacher's role or control over the learning process. The term control refers to the amount of grip a teacher or a learner has on the learning process for smooth continuity and best outcomes (Frohberg et al., 2009). When designing mobile learning environments, it is very important to emphasize the role of the moderator who mediates the learning process, controls it to a certain extent and creates the learning environment which nourishes learners with guided reflection; otherwise, learners may be at risk of losing direction (Sharples, 2013; Sharples et al., 2005). As a theoretical foundation for their mobile learning research, Herrington et al. (2009) discuss the concept of authentic learning where students are able to resolve real-time complex problems in professional environments and by reflection create new knowledge, at times guided by teachers. The teacher's role and intervention in the learning process is of vital importance. Pachler et al. (2010, 160) refer to "the conversational framework for supporting the formal learning process" suggested by Laurillard (2007), which shows the notion of "the world of experience" for the role of teacher in the learning process. They present a further critical analysis of the conversational framework: "Learning is viewed as a series of iterative conversations with the external world and its artefacts, with oneself, with other learners and, of course, teachers". Frohberg et al. (2009, 317) have categorized mobile learning projects (published up to 2007) from a fully teacher-controlled learning scenario to a fully learner-controlled learning scenario and recommend scaffolding as an optimized option in the middle of the two extremes. Their reasons for scaffolding recommendations include:

1. Learners are from a variety of backgrounds and have distinct learning needs.
2. Different phases of the learning process may vary in terms of need for scaffolding.
3. Scaffolding may be very appropriate for individual learning and team-based learning.
4. Learners may encounter unexpected problems or opportunities and may need to take the initiative when making decisions by themselves at times.

In mobile learning environments, it is crucial to decide how autonomous a learner should be so that the best learning outcomes can be achieved. Therefore, it is important to consider the necessary level of control when designing mobile learning environments.

RESEARCH QUESTION AND RESEARCH METHOD

The results and discussion presented in this paper were part of an exploratory case study to identify mobile learning characteristics for Pakistani university environments. The main research question for this study was: How do the students perceive the role of the teacher in a mobile learning environment in Pakistani universities?

Case study was the chosen research method and research design approach for this study. For data collection, three focus group discussion sessions were conducted in three Pakistani universities. Focus group discussion sessions were recorded and transcribed. Data was analysed in NVivo qualitative data analysis software.

RESULTS, DISCUSSION AND FINDINGS

The majority of participants of the focus group discussion sessions in the three Pakistani universities perceived that mobile devices in the learning environment would not replace the teacher's role, as shown in the following quotes from students participating in the focus group discussions:

I think what a teacher can deliver cannot be achieved through the mobile learning mode. We can ask questions instantly when a teacher is present. [Uni A - Student6]

Often, students do not do anything without the teacher's intervention. [Uni C - Student4]

It was explained clearly to them that mobile learning was not meant to replace the teacher with mobile devices. However, the latter requires a student to be a more independent learner as they will have to learn on their own while on the move or at work if they wish to be involved in mobile learning (Chen et al., 2004; Chen, 2009; El-Bishouty et al., 2010; Wishart and Triggs, 2010).

There were mixed responses to a question about whether students would be able to learn independently of the teacher's intervention and be responsible, independent learners. Some students said that they needed the teacher's help all the time, while others reported that they engaged in learning activities by themselves independently of the teacher.

It also depends on motivation level. For example, if I like mathematics, I will resolve problems even when I have to work hard to find a solution for a problem. For other courses, however, I would not work so hard; I mean to say if you have motivation for something, you can do it without the teacher's help or intervention. [Uni A - Student11]

Some students mentioned that they learn better when the teacher is involved: they felt pressure and accountability and therefore they submitted their assignments on time. Also, they needed teachers to reassure them that they were on the right track. One student believed that everybody would engage in mobile learning if they had no other choice, while others were of the opinion that students would love to explore and try a new mode of learning such as mobile learning as it provided so many benefits. Another student mentioned that not every course or subject matter is so simple that it can be understood independently of the teacher or so complex that the teacher needs to be consulted constantly; therefore mobile learning would be ideal for some courses, while for other courses it

might only be partially successful. Also, a student's own interest level and readiness are significant if the switch were made to mobile learning. Students also discussed that teachers should be involved in the design of mobile learning courses. One student suggested that mobile learning activities should be designed in such a way that students should find it very interesting and feel motivated to embrace it.

Teacher should design some activities to help motivate the students to do their tasks. [Uni C - Student5]

The literature also complements the idea of teachers needing to be actively involved in the testing and implementation of mobile learning in the higher education sector. Teachers also need to be motivated and appropriately trained to deliver mobile learning courses in a blended learning environment (Wang and Ryu, 2009; Jeffrey, 2009; Fernandez et al., 2009; Chen et al., 2010)

One participant mentioned an important issue regarding students from different social and academic backgrounds. For instance, some students have graduated from private schools which mostly follow the American or Western style of schooling system which includes A-Levels and O-Levels (British) where they are trained to be independent learners. However, the majority of students come from a traditional, government school system where a student is not really encouraged to be an independent learner. This underlying fact may impact significantly on the students' confidence in switching or adapting to a mobile learning mode where they are required to be independent or self-learners.

Although I agree to all of them to some extent however I will mention something important, in our session students are from matriculation background in contrast to a few people from A-levels. A-levels are habituated to completing their task without the teacher's enforcement. [Uni C - Student4]

Summary of Discussion and Findings

- Some students were happy to learn independently of teachers if the subject matter was not too complex. If the education system encouraged them to be independent learners, they would grab the opportunity.
- They did want a teacher to be involved in the design and learning of each course whether it was offered face-to-face, online or using mobile learning.
- Regarding their ability to be self-learners, many students were reluctant to be independent learners.
- Some of the students were from the public-sector high school system where they are not expected to work independently of teachers, while some students came from private school systems where the teaching and learning style is more like that of developed countries and students are given tasks to do on their own.

CONCLUSION AND FUTURE RESEARCH

There is much uncertainty in the teaching and learning community about the teacher's role in a mobile learning environment. It is important to have a clear pedagogical and theoretical stance for mobile learning in order to make certain things clear, such as the teacher's role in a potential mobile learning environment. Further, education systems in different parts of the world have a great impact on how students develop expectations of the teacher's role in their learning process. Students in developing countries perceive the teacher's role as central to the learning process instead of taking responsibility themselves for their learning, with the exception of few students who did show interest towards independent learning if they were to be involved in mobile learning. In future, any potential mobile learning implementation in Pakistan needs careful planning taking into consideration students' learning habits, expectations and perceptions, as well as the traditional education system. Further, cultural factors impacting on the design of mobile learning environments in Pakistan would need to be researched in the future.

REFERENCES

- CHEN, C.-H., CHEN, S.-H., HWANG, G.-J. & YANG, T.-C. 2010. Factors influencing teachers' adoption of a ubiquitous technology application in supporting teacher performance. *International Journal of Mobile Learning and Organisation*, 4, 39-54.
- CHEN, C.-M. 2009. Personalized Elearning system with self-regulated learning assisted mechanisms for promoting learning performance. *Expert Systems with Applications*, 36, 8816-8829.
- CHEN, Y. S., KAO, T. C., YU, G. J. & SHEU, J. P. 2004. A Mobile Butterfly-Watching Learning System for Supporting Independent Learning. In: ROSCHELLE, J., CHAN, T. W., KINSHUK & YANG, S. J. H. (eds.). JungLi, Taiwan: IEEE Computer Society.
- EL-BISHOUTY, M. M., OGATA, H., AYALA, G. & YANO, Y. 2010. Context-aware support for self-directed ubiquitous-learning. *International Journal of Mobile Learning and Organisation*, 4, 317-331.
- FERNANDEZ, V., SIMO, P. & SALLAN, J. M. 2009. Podcasting: A new technological tool to facilitate good practice in higher education. *Computers & Education*, 53, 385-392.
- FROHBERG, D., GÖTH, C. & SCHWABE, G. 2009. Mobile Learning projects; a critical analysis of the state of the art. *Journal of Computer Assisted Learning*, 25, 307-331.
- HERRINGTON, J., HERRINGTON, A., MANTEI, J., OLNEY, I. & FERRY, B. 2009. Using mobile technologies to develop new ways of teaching and learning. In: HERRINGTON, J., HERRINGTON, A., MANTEI, J., OLNEY, I. & FERRY, B. (eds.) *New technologies, new pedagogies: Mobile learning in higher education*. University of Wollongong.
- JEFFREY, L. M. 2009. Learning orientations: Diversity in higher education. *Learning and Individual Differences*, 19, 195-208.
- LAURILLARD, D. 2007. Pedagogical forms for mobile learning. In: PACHLER, N. (ed.) *Mobile learning: towards a research agenda*. London: WLE Centre, IoE.
- PACHLER, N., BACHMAIR, B. & COOK, J. 2010. *Mobile Learning: Structures, Agency, Practices*, New York, London, Springer.
- SHARPLES, M. 2013. Mobile learning: research, practice and challenges. *Distance Education in China*, 3, 5-11.
- SHARPLES, M., TAYLOR, J. & VAVOULA, G. 2006. Towards a theory of mobile learning. *MLearn*, 2005.
- WANG, P. & RYU, H. 2009. Not SMS, but mobile quizzes: Designing a mobile learning application for university students. *International Journal of Mobile Learning and Organisation*, 3, 351-365.
- WISHART, J. & TRIGGS, P. 2010. MuseumScouts: Exploring how schools, museums and interactive technologies can work together to support learning. *Computers & Education*, 54, 669-678.