Student Attitudes towards Mobile Learning – a preliminary survey
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This project builds on recent developments in ‘mobile learning’, and aims to develop a software application (which we label ‘an App’ in this paper) operating on ‘Smartphones’ (and their equivalents), to assist both staff and students in the learning process. We will design the App to integrate with the existing University’s existing LMS. The App will not replace the Learning Management System (LMS) but rather complement and enhance its useability.

This paper reports on the preliminary results from Phase One of the larger project. Phase One involves ascertaining student responses to mobile learning through an online survey. The survey was administered to Australian undergraduate students at a regional and an outer urban campus of Monash University in Victoria and secured 70 responses. The survey included opportunities for extended written feedback as well as a series of questions about student preference for, and possible use of, mobile learning. In keeping with the student-centred approach to design, Phase Two of the project will involve a deeper engagement with students through the formation of a student users’ group. Phase Three will involve the design and trial of the App, while Phase Four will involve implementation and fielding testing in a series of courses across diverse disciplines.

Higher education and mobile learning
While the survey focuses on the Gippsland and Berwick campuses of Monash University in Australia, many of the course offerings and student demographics at these campuses make the research relevant to the Higher Education (HE) sector more broadly. For example, the Gippsland campus includes 8 of the 10 Monash Faculties and has a broad educational profile. It also offers courses in both on and off campus mode.

Furthermore, the challenge to recruit and retain low Socio Economic Status (SES) students also has sector-wide relevance, particularly at the Gippsland campus where 27% of all students are from low SES backgrounds, which is above the sector average of 15% (See Monash University, OPQ, 2012). If the HE sector is to meet targets to increase enrolments and participation, new and innovative modes of engaging students, including low SES and geographically dispersed cohorts, need to be assessed and adopted where they are found to be successful. Yet the benefits of the digital age are spread unevenly across the potential student demographic (see Graham, 2011). This project will develop a working App, and explore ways to overcome the possible barriers of access and implementation.

In terms of the literature on mobile learning, the project is based on E-learning and Mobile learning theory which focuses on the power of the ‘anytime, anywhere’ concept. As Motiwalla (2007) among others, notes, mobile learning can free the learner from the physical constraints of the class room, enabling personalised, student-centred, and flexible learning. We also follow Alonso et al (2005) in seeing mobile learning features as integrating with and enhancing existing forms of learning; what Alonso and many others have termed ‘blended learning’. The collaborative design of the proposed App using input from prospective student users is also central to a student-centred approach.

E-learning or Mobile learning presents a range of opportunities, but there are also potential challenges. The demographics of Monash University’s Gippsland campus indicates that students are from diverse backgrounds with varying levels of access and familiarity with Smartphones. They are also culturally
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diverse and some research (cited by Gasparini (2012) for example) has highlighted the cultural bias
inherent in instructional design and in online learning environments. Other work has explored the
effects of gender, income and ethnicity on mobile phone ownership and usage (Junco et al, 2010).
There are also issues in the cost of Smartphone plans and the inherent limitations of the device such as
the small screen size and limited battery life (Molnar and Muntean, 2012). To that end we emphasize
that we do not envisage using multimedia rich content but prefer personalised text-based information
and interaction. Previous studies have shown that cost pressures are a significant barrier to
participation in mobile learning, though Molnar and Muntean offer possible technical fixes which
may reduce overall cost which can be investigated

Method
An online survey was designed to ascertain the initial response of students to the possibility of mobile
learning. We focused on student demographic information, their past experience (if any) with this
form of learning, and their perceptions of the value of particular features of mobile learning. We draw
upon Hetherington’s summary (Hetherington, 2009) to identify four areas of student interaction and
engagement. The questions were designed to capture the possibilities and potential of each of these
areas:

1. **Orientation and Engagement** (reminder texts, pushed and/or pulled information, etc).
2. **On track assignment and event reminders/campus room tracking:** (reminder texts for
   assignment deadlines, posting of new learning material, personalising nature of interaction,
   integration with timetable, etc)
3. **Smartphone quizzes/interactive learning/student networking:** (higher levels of
   interactivity including online quizzes, opportunities to network, in-class interaction, etc)
4. **Student feedback and evaluation:** (facility to send feedback student use of, and reaction to,
   the app, etc)

Results
The final presentation will provide more detailed analysis but for the purposes of this abstract we can
offer an overview. Of the 70 responses received for the online survey there was a roughly even spread
of students across 1st, 2nd and 3rd year levels. Some 76% of the sample was female which may come
from the dominance of students from arts and social sciences (who made up 59% of the sample) and
from nursing (16% of the sample). There was also a roughly even spread of students who were
studying mostly on campus (54%) and mostly off campus (43%), while 70% were full time and 30%
part time. 97% of those surveyed (i.e. all but 2) owned or had ‘regular access’ to a mobile device,
which we defined as ‘a phone, ipad or mini-computer that is connected to the internet’). 73% of the
sample had prior experience with mobile learning. Of those, 80% recorded that experience at
University, 24% at School and 13% at TAFE (the Technical and Further Education sector in
Australia).

The general response of students to the possibility of mobile learning was very positive. When asked
to consider ‘how important do you think a mobile device could be in your University studies’ 47% said it was ‘crucial’ or ‘very important’, while 47% said it was ‘moderately important’ or ‘somewhat
important’. There were also clear preferences in terms of the general areas of focus for a possible App.
Using the App to help identify rooms and navigate campus was marked as ‘crucial’ or ‘very useful’
by 65%. 69% of students thought it was ‘crucial’ or ‘very useful’ to receive regular quizzes on their
mobile device. Students preferred the possibility of using the App to access lecture notes and lecture
recordings (70% ‘crucial’ or ‘very important’).

As expected some areas did not receive such enthusiastic support from students, perhaps because they
may be more difficult to imagine compared to more straightforward forms of engagement. Using the
App to assist in making connections with other students (in study groups) for example was marked as
‘crucial’ or ‘very important’ by only 39%. Employing the App to encourage in-class interaction was
assessed by only 31% of students as ‘crucial’ or ‘very important’.
In terms of the nature of the interaction, and the possible barriers, students also had some interesting observations. The idea of ‘personalised’ interaction i.e. tailoring the App was assessed as ‘crucial’ or ‘very important’ by 73%. The cost of downloads and phone plans was seen by 29% of the sample as a ‘crucial’ or ‘very important’ issue ‘in reducing their participation in mobile learning’. This finding relates to the equity issues inherent in the design and implementation of mobile learning but given the low SES profile of the campus cohorts this figure was not as high as we might have expected. Perhaps the best overall summary of the results is captured by the final question which asked students to think ‘about the possible benefits of mobile learning’, and specifically asked ‘how would you feel about the introduction of this form of learning to complement your University studies’. A very high 69% of the sample thought this was ‘absolutely crucial’ or would ‘strongly support’ this introduction, while 21% would ‘moderately support’, 5% were ‘slightly against’, and 5% were ‘strongly against’.

Conclusion
This survey provided useful base line data for the further development of the project. We were able to ascertain the general disposition of the student group (based on this sample). The results suggested a strongly favourable disposition towards the possible benefits of mobile learning. There were also clear preferences for certain forms of functionality such as easier access to content and tailoring communication to suit their needs. This work remains provisional at this point with more detailed assessment to follow. We also need to conduct a closer analysis of the some of the open-ended responses which could be and were made by respondents at key points. The base line data, together with some of this qualitative feedback, indicates that the general approach of ‘anytime, anywhere’ learning is appealing to students and that their views have a vital role to play in assisting the design phase of an effective learning App.

References


