CAUCE Report on Mobile Learning Project at Extended Education/University of Manitoba

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Origins

This project originated in the fall of 2012 when the then Director of Continuing Education at the University of Manitoba launched an initiative that would enhance collaboration with Distance Education and employ the latter unit's expertise in instructional design and mobile learning. At the time, both CE and DE were separate units within Extended Education. By collaborating, the two units could create better courses and help increase student enrollment in the division as a whole. The CE director assembled a team of experts in Continuing Education, Educational Technology, and Instructional Design. Eventually, the team decided to redevelop an introductory HR course for the mobile context. This course, *Managing the Human Resource Function*, was chosen for two reasons; firstly, the course instructor was open to experimenting with new educational approaches and, secondly; the course lent itself to fieldwork where we could institute mobile-based assignments.

Design

As the project progressed, we researched best practices in mobile learning and mobile learning design. One team member attended MLearnCon 2013, one of the largest mobile conferences in North America. From several excellent presentations, the work of Paul Clothier, an instructional designer in the corporate sector, was chosen as a basis for the redesign. Among other things, Paul Clothier recommends the following:

1. Present learners with a simple interface that they can read on a small screen.
2. Chunk up the information to make it more mobile accessible.
3. Take advantage of social media, which many students access with their mobile devices.
4. Exploit the strengths of mobile devices, most of which are equipped with excellent video and audio recording features.
5. Remember that mobile devices are not particularly good for entering large amounts of text so keep this in mind when designing certain mobile activities and assignments.

Using the above recommendations and other secondary sources, Robert Lawson and Kathy Snow, two instructional designers on the project, presented an award - winning paper on our course redesign at E-Learning Korea 2014.

Technology

As part of the project, we adopted and utilized a responsive web template to be used for the course. We reviewed the limitations of the mobile web version of the LMS and modified the course navigation accordingly to provide a better navigation experience for the students. Following recommendations to use hide/ shows to display course content, we developed our own hide/show format in house to make the course content more mobile friendly and interactive. We also used JWPlayer for delivery of the videos within the course to ensure seamless streaming on different devices.

Research

The redesigned course was launched in the fall of 2014 with a cohort of six students. Of the six, only two responded to the research interview. Therefore, it became necessary to focus on the qualitative components of the research design. An analysis of acceptance based on the UTAT2 Framework, as initially proposed, was impossible given the small sample size. Two students were interviewed and their responses were transcribed and analyzed for themes. These transcripts were compared to the written reflections of the design team and the instructor. Four major themes were identified in relation to factors impacting acceptance of mLearning for Continuing Education courses in this case:

- Technical and Administrative glitches impact acceptance: As the course design impacted several departments within one faculty, new inter-departmental relationships needed to be built. The process of building these involved challenges that were recognized as factors impacting the acceptance of the course.
- Instructions for new technology need to be presented in a "Just-in-time" format: designing instructional sheets, or videos and placing them in a central location led to frustration as participants searched for items and became frustrated when they were not readily apparent when needed.
- The time needed for the technology must equal the task demands: adult learners demonstrated a low tolerance for tasks that appeared too onerous because of technology and were willing to ignore the task and potentially lose the associated marks if the technology made the task more difficult to complete than necessary.
- The instructor-student relationship is critical to acceptance: student participants used technology and developed more confidence with technology when the instructor demonstrated skill with the technology and the reverse was also true.

Though the participant numbers were very small, and the results may not be applicable outside of the context of the case, the findings were useful for the departments in question and have been used in subsequent course revision and design.