M-Powered Learning and Student Engagement

Might mobile devices be the “magic bullet” to encourage student engagement? Educators are starting to look closely at the potential of these powerful tools. The 2011 Horizon Report states mobile devices will outnumber computers within a year. The excitement around these devices is understandable.

Background

Learning Innovation, a service unit within the Calgary Board of Education (CBE), conceptualized a mobile learning and digital citizenship initiative in 2009. The project team, including a researcher from the University of Calgary, identified participating schools, designed professional development activities, purchased and deployed hardware and software, and supported teachers, students, administrators and IT staff to integrate the devices and peripheral technologies. The project coincided with the launch of a student-accessible wireless within CBE schools.

The kick-off for this initiative involved the project team, working with Apple Canada, inviting teachers to be immersed in a professional learning experience that required them to complete an inquiry-based task utilizing the devices. This immersive approach is supported by literature suggesting teachers typically teach the way they learn (Stitt-Gohdes, 2001), and they should be supported to experience innovations as learners first before they are called upon to use them in their practice (Jacobsen & Crichton, 2003).

Teachers and students were supported by regular visits by project team members who offered pedagogical and technical support. From the beginning, digital citizenship (Ribble & Bailey, 2007) was introduced as a core foundation to the deployment of technology. Digital citizenship informed admirable use guidelines (Richardson, 2009) that in turn informed the use of the devices in school and the commitments required for students to take the project devices home.

Mobile technologies generally are designed to be personalized by individual users. They acquire content and applications (apps) through synchronizing to a proprietary application such as iTunes or the Android Market. When used in a classroom setting, each device is synchronized to a common classroom account.

Findings

The iPod Touch devices were deployed in two elementary classrooms (grades five and six), two junior high classrooms (grade eight Social Studies), and one high school classroom (Social Studies 12-2). The iPads were deployed in one elementary, one middle school, and one high school class.

When asked whether students would recommend iPod Touches for other classrooms, 64 per cent of elementary students said YES, suggesting they were fun to use, but 36 per cent worried the devices were too small and too tempting to just play with. Fifty-four percent of junior high students said YES, commenting, “They are fun and a better way to learn,” while 42 per cent said MAYBE, commenting they were very distracting.

High school students were the most critical of the devices, with 58 per cent responding MAYBE, commenting “apps aren’t fully integrated into our education/they aren’t made for classroom setting, and they are distracting.”

Twenty-two per cent responded vehemently NO, commenting they make “doing projects too complicated, frustrating and takes too much time; more of a distraction than educating [sic].”

Almost a year later, high school students again asked if they would recommend the devices; 23 per cent said NO, 62 per cent said YES, and 15 per cent were UNSURE. The teacher had conditional support for the device. All administrators responded strongly YES.

Initial findings from the iPad deployment in a high school found 71 per cent of students would recommend the devices, 2 per cent said no, and 17 per cent were unsure. The teacher was positive about the experience.

Classroom observations yielded an understanding of how the devices were actually being used. As might be anticipated, the use varied based on the teachers’ comfort with the device. The most innovative use was the...
student creation of a game to support a social studies concept; the most typical use was a reference tool (access to a thesaurus or Internet).

**Discussion/implications**

Both iPod Touch and iPad devices appear to engage students. Teachers reported they had no problem using the devices; however, some struggled to integrate them into their teaching and design meaningful activities. School readiness to deploy the devices was a critical variable as infrastructure requirements are quite different for mobile technologies than for conventional computers (White, Crichton, & Pegler, 2010).

A focus on digital citizenship appears to have helped with concerns such as vandalism, loss, and inappropriate use. Findings suggest digital citizenship invites a positive view of issues rather than focusing on all the things that students shouldn’t do with the devices.

Possibly the most interesting finding is the confirmation that schools and IT staff must recognize the day of teacher-directed learning in the computer lab is gone.

One only needs to look around to see how prolific and pervasive mobile learning technology has become in the lives of many young (and not so young) people. Our work within this project has helped illuminate how these devices can fit not only within our students’ pockets and packs, but also within today’s learning environments to provide new avenues for student productivity and engagement.

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