

OPDF Project Case Studies

Project

Classroom backchannel using DEQQ

Institution

Emily Carr University, Vancouver, Canada

Description

For a first-year English course of 200 students, Glen Lowry used proprietary software called DEQQ by Vancouver company Work at Play. DEQQ is a stand-alone application, written in Adobe AIR, which allows students to login using either their Facebook or Twitter accounts, where they can participate in a backchannel discussion both during class and for continuity between classes. Participation was optional, and students could share, discover and discuss links and other material related to the course.

Devices

Various; provided by students. Students could participate via Mac or Windows applications, a iPhone/iPad app, a Blackberry app, or through a browser-based version that allows access from any other web-enabled phone or computer.

Results

Many students were excited by the possibilities and began to see the potential of social media in their courses and in their lives.

Challenges

The greatest difficulty encountered was initial buy-in from students and faculty. Some students were initially reluctant to use the service. For some, it represented an added workload even though it was optional. Not all students were technically savvy, and some found the new tools daunting. Others were hesitant to mix their personal and public lives by connecting their Facebook or Twitter account to their educational institution.

It was difficult to convince other instructors on the course to make use of the service, as it represented a fundamental shift in teaching style. It was also logistically challenging to incorporate DEQQ into lectures without an additional person to monitor the feeds and respond to questions and problems in real time.

Benefits

For students, DEQQ gave them a means of interaction and discussion and created continuity between the lectures. For faculty, it was economical to be able to respond to multiple students' questions with a single short answer. This also helped the students to feel that "they've got the teacher on speed dial all the time".

Using a proprietary system was an advantage as Work at Play could make adjustments to the DEQQ system as requested, unlike Twitter or Facebook where users must adapt to the system itself.

Related Links

- Work at Play: <http://www.workatplay.com>
 - “Welcome to the education chat room”, Georgia Straight, April 14, 2011: <http://m.straight.com/article/386390>
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Project

MENTOR ME

Institution

Barnet College, North London, UK

Description

Teacher trainees and their mentors at Barnet College often found that it was difficult to schedule time to meet. By partially replacing face-to-face meetings with mobile functionality, Barnet College aimed to improve the mentoring and teaching experience and improve the teachers’ confidence and technological ability.

Devices

Various; provided by project administrators

Results

Trainees used the devices to video-record their own lessons, self-assess and discuss with their mentors. This saved a great deal of travel and assessment time, and importantly, the videos helped the student teachers to review points made by their mentors and make more informed improvements. This process enhanced their self-reflection and critical thinking skills.

Many of the trainees also began to incorporate their devices into the classrooms themselves. One such example was an art teacher who used their phone’s camera as a projector to display students’ artwork on a screen for the entire class to be able to view and discuss.

Challenges

For the project, several different types of smartphones were purchased. The wide variety of devices made training and support more difficult. This was partially alleviated with the help of a student apprentice hired as support on the project.

Benefits

The project helped save approximately £10,000 in observer time and travel costs. Students reported that recording videos of their teaching sessions, rather than having an outside observer present, made them feel much less self-conscious and nervous and able to perform better.

Related Links

- A Case Study of Mobile Learning in Teaching Training (PDF):
<http://www.medienpaed.com/19/cushing1106.pdf>
 - MOLENET summary:
<http://www.molenet.org.uk/projects/southeast/barnet/>
-

Project

Kurio: A Museum Guide for Families

Institution

School of Interactive Arts and Technology, Simon Fraser University, Burnaby, Canada

Description

Kurio is a museum guide designed to support families and small groups visiting a museum. They are presented with a story and a series of challenges to collect information from throughout the museum.

The aims of the project were to close the social interaction gap in most interactive museum guides by encouraging involvement of multiple participants, and design learning activities with naturalized, interactive technology that are based on personal exploration and discovery rather than information retrieval and retention.

The study included 8 families, or 25 parents and children, recruited from local schools.

Devices

One iPhone along with several custom-built tangible devices and a tabletop display.

Results

The results showed that Kurio closed the social gap present in most museum guides, and created more interactivity and meaningful engagement. One participant was pleased that “you can actually do things” in the museum, and not just “look at things or watch movies.”

Challenges

For larger families, it can be difficult for the player in the “monitor” role to coordinate effectively. Some concerns were raised about the language level of the content, and correspondence between the challenges and what was actually in the museum.

Benefits

Family members could interact and assist each other while learning about the museum displays. One child reported, “I feel that like I absorbed the information, instead of just reading and skimming over it and leaving... you actually had to look at it, and it was more fun to read it and look at it, than to just read it and be like ‘oh this is interesting’ and leave.”

Related Links

- http://thegeekmovement.com/ktanenbaum/wp-content/uploads/2009/04/wakkary_etal_2009_kurio_a_museum_guide_for_families_tei.pdf
 - http://www.youtube.com/v/2rifr_UTnr8
 - <http://echovue.iat.sfu.ca/>
-

Project

Use of Mobile Technology for Teacher Training

Institution

University of Bristol, Bristol, UK

Description

Thirteen science teachers and six teacher trainees in a high school science department were given PDAs for the school year. The goal was to increase m-learning and m-teaching capacity, enable school-based associate tutors to join the e-learning community, and encourage reflective practice amongst trainee teachers.

The participants were shown how to collaborate through the course VLE (Virtual Learning Environment), how to access course documentation, search the web, find e-books and encyclopedias, organize schedules, record and analyze laboratory results, record student attendance and grades, take photographs, and maintain a blog.

Devices

Pocket PC handheld PDAs

Results

Results were mixed, with some of the teachers and trainees abandoning the device after a few months of use, and others embracing their potential.

Challenges

The devices were seen as personal devices rather than educational tools, and while the participants made great use of the personal information management functions, they did not often use the devices to access course information. Halfway through the project, six of the teachers had stopped using the PDAs due to the small size of the screens or a preference for other tools. The teacher trainees made slightly better use of it, but not all of them saw a clear benefit for the devices in their own teaching and learning.

Benefits

The teachers made great use of the Pocket PC's calendar and notetaking features, and some used images to record activity in classes, such as experiment set-up. The teacher trainees felt comfortable using the device in the classroom, and enjoyed being able to keep the PDA handy in a pocket or bag so they could

reference it as needed. All participants appreciated being able to access the internet wherever they happened to be, whether for personal or professional use.

Related Links

- Use of Mobile Technology for Teacher Training (PDF):
http://www.aupress.ca/books/120155/ebook/13_Mohamed_Ally_2009-Article13.pdf
 - <http://escalate.ac.uk/8250>
-

Project

A Mixed-Method Engagement Course: Using Twitter and Pulsepress in the Classroom

Institution

Sauder School of Business, University of British Columbia, Vancouver, Canada

Description

Larger classes can create challenges for engagement and interaction, as it becomes impossible to ensure that everyone in a physical class has an opportunity to contribute. Paul Cubbon sought to create greater engagement in a first-year commerce course of over 500 students divided into four sections. In addition to traditional paper-based assignments and group discussions, the class incorporates Twitter to encourage feedback and interaction from the entire class.

Devices

Various; students provided own devices ranging from phones to laptops.

Results

The response from the class has been largely positive. Switching between lectures, group discussions, paper-based work and Twitter work has helped to change up the pace of the class and keep students interested and active. Students were also very resourceful in how they used Twitter, with some using the opportunity to link to images, videos, other websites and Powerpoint presentations rather than limiting their thoughts to 140 characters.

Challenges

As this course was co-taught, other faculty at first had to be persuaded to try using Twitter. Cubbon demonstrated the potential in a few classes of his own, which helped to alleviate many of the concerns of the other faculty members. Twitter itself has many limitations which had to be worked around. Tweets are only archived for a relatively short period of time, so all class activity is lost at the end of a semester. Occasionally even recent tweets with the relevant hashtag would fail to show up in search results, or students would forget the hashtag. Cubbon worked with UBC's Centre for Teaching, Learning and Technology to modify a plugin for Wordpress, called Pulsepress, which provides Twitter-like

functionality in addition to the ability to like or vote up a tweet, all within UBC's login authentication for better privacy. Pulsepress has been used in a small graduate class and will replace Twitter in Commerce 101 this September, 2011.

Benefits

By providing a Twitter-like mechanism for group work and feedback, Commerce 101 is able to engage a greater number of students in the class than could be handled by calling on individuals, and gives voice to those who ordinarily would not be comfortable speaking up in class. Cubbon notes that having a live feedback tool in a large class is a benefit from a teaching perspective, since if the students are finding the material unclear it will be reflected in the Twitter feed. He can then address the difficulties himself, or sometimes other students will tweet to explain or point strugglers towards the readings.

Related Links

- [Tweet, click, blog: A new way to learn business](#)
-

Project

Mobility Initiative

Institution

University of Maryland, College Park, USA

Description

The Mobility Initiative seeks to enhance the classroom learning experience, promote interaction between faculty and students, and explore ways to use mobile devices as academic tools.

Devices

In the first phase of the program, students were given their choice of iPod Touches or iPhones. Later, for faculty engagement, a pool of loaner iPod Touches was created to be requested and used for specific classes.

Results

At first, the students used the devices mostly as clickers and for personal use rather than as academic engagement tools. With the advent of the summer technology institute, a group of six to eight faculty were brought in as mobile learning fellows, and the pool of loaner devices was created so that a class could have a common learning experience with common applications. The faculty proposed ways to use the devices in their courses to improve the learning experience or engage students in different ways.

Projects have included a media diary, iPhone programming projects, and the use of audio and video tools to discuss cross-cultural communication, interview subjects, record and study physical education classes. Some of the projects have

required or inspired custom app development, while others use common freely-available iOS apps.

Challenges

Until the faculty were engaged with the devices as well, the iPhones and iPods had no clear pedagogical value on their own, and were used by the students only as personal devices. Some faculty who were not aware of the initiative discouraged the students from using the iPods in class even as clickers, or asked for the wireless in the classroom to be disabled. These issues have decreased as the initiative has grown.

Benefits

The interest in mobile learning has grown significantly as word has spread among the faculty. The attendance at the mobile sessions of the summer technology institute has increased significantly, and UMD has formed a learning circle where faculty can share their experiences, projects and ideas on mobile learning.

Related Links

- <http://mobility.umd.edu>
 - <http://www.cs.umd.edu/class/spring2010/cmsc498i/website/Projects.html>
 - <http://www.educause.edu/Resources/SpotlightonMobileComputingStor/221757>
-

Project

Blackberry in the MBA Program

Institution

School of Business and Economics, Laurier University, Waterloo, Canada
Smith School of Business, University of Maryland, College Park, USA

Description

The MBA programs at Laurier University and the University of Maryland have both supplied their full-time students with Blackberry devices. Maryland ran their Blackberry program from 2004 to 2009, while Laurier started their program in 2009.

Devices

Blackberry

Results

WAITING TO LEARN RESULTS FROM LAURIER – found a PPT presentation here if no response:

http://docs.google.com/viewer?a=v&q=cache:YeebndZRSSgJ:wluteachingandtechnology.wikispaces.com/file/view/Nov%2B16%2BTeaching%2BWith%2BTechnology%2BSlide%2BDeck.pptx+The+Laurier+MBA+BlackBerry+Pilot+Program&hl=en&gl=ca&pid=bl&srcid=ADGEEShEES3KN4LHmEw_XAo4b9VfSoo3QVxYLLqmfYZOdz-

[FGsZuVIYWsVIYe3l_K0eM6P9sm4nU7jEQAoPyjGji_q3tKk07ThtJwb1ELwQWK](http://docs.google.com/viewer?a=v&q=cache:YeebndZRSSgJ:wluteachingandtechnology.wikispaces.com/file/view/Nov%2B16%2BTeaching%2BWith%2BTechnology%2BSlide%2BDeck.pptx+The+Laurier+MBA+BlackBerry+Pilot+Program&hl=en&gl=ca&pid=bl&srcid=ADGEEShEES3KN4LHmEw_XAo4b9VfSoo3QVxYLLqmfYZOdz-FGsZuVIYWsVIYe3l_K0eM6P9sm4nU7jEQAoPyjGji_q3tKk07ThtJwb1ELwQWK)

[68nnhzXvPc7&sig=AHIEtbQGY1lu39zKZV4WN57zMERkcG0ehg](http://docs.google.com/viewer?a=v&q=cache:YeebndZRSSgJ:wluteachingandtechnology.wikispaces.com/file/view/Nov%2B16%2BTeaching%2BWith%2BTechnology%2BSlide%2BDeck.pptx+The+Laurier+MBA+BlackBerry+Pilot+Program&hl=en&gl=ca&pid=bl&srcid=ADGEEShEES3KN4LHmEw_XAo4b9VfSoo3QVxYLLqmfYZOdz-68nnhzXvPc7&sig=AHIEtbQGY1lu39zKZV4WN57zMERkcG0ehg)

After five years, the Smith School of Business discontinued the Blackberry program, partially due to costs and partially due to a perceived shift in the student population, as most students now typically have their own smartphones upon entering the program.

Challenges

Bob Krapfel, associate dean of the Smith School, advises others trying a similar program to link the devices closely to the curriculum so they do not simply become a personal communication tool.

Benefits

A smartphone can be an especially important device for students in professional programs such as business and journalism, as they will be expected to use and be familiar with these tools once they graduate and begin working in their field.

Related Links

- <http://www.ft.com/cms/s/2/09c235ae-ffd9-11de-ad8c-00144feabdc0.html#axzz1T8uvcqki>
- <http://lauriermba.ca/why-laurier-mba/academic-standards/the-laurier-mba-blackberry-pilot-program/>

Project

Mobile English as a Second Language
Workplace English

Institution

Athabasca University, Athabasca, Canada

Description

Athabasca's Mobile ESL initiative involved adult learners in ESL programs at Edmonton Mennonite Centre for Newcomers, Global Community College, and Evangelical Chinese Baptist Church. Each lesson contained content, practice exercises, and various tests (multiple-choice, jumbled-sentence, true- false, and matching).

Later, an extension of the Mobile ESL initiative was created to assist in the development of language and workplace skills for workers. This workplace project added multimedia-rich content and focused on workplace-related vocabulary.

Devices

Any mobile phone with wireless capabilities

Results

The majority of students agreed that the technology provided the flexibility to learn anywhere and any time. Many said they would consider taking a mobile-based course again, while a few others still preferred classroom courses or the use of a computer.

Information was collected on the initial ESL level of the participants. 87% of participants scored better after completing lessons on the mobile devices and the improved scores were retained after one week.

Challenges

There was some concern over the cost of internet access, and some students felt the audio and video in the workplace project took too long to load.

Benefits

The initial ESL project received an honourable mention in Excellence and Innovation in Use of Learning Technology from the Canadian Network for Innovation in Education.

Related Links

- <http://www.eslau.ca>
- <http://www.wpeau.ca>
- <http://www.youtube.com/watch?v=c3ErSTu9E8M>
- http://athabascau.academia.edu/StellaLee/Talks/42345/Library_As_An_Advocate_of_Mobile_Learning_the_Athabasca_University_Experience
- http://www.ccl-cca.ca/pdfs/FundedResearch/201009AllyMcGrealSchaferTinCheungExeSum_EN.pdf

Project

Mentira

Institution

University of New Mexico, Albuquerque, USA

Description

Mentira is a place-based augmented reality game developed to assist with Spanish language skills. It uses the Augmented Reality for Interactive Storytelling

(ARIS) platform developed at the University of Wisconsin-Madison. The game is set in Los Griegos, a neighborhood in Albuquerque. The game takes students to six specific places in the area, where they attempt to solve a murder and clear their own family's name of suspicion. Players must work together and share clues. The game is tied closely to the classroom curriculum and takes place over four-week timeframe, with about one hour per week dedicated specifically to gameplay.

Devices

iPhone, iPod Touch

Results

The game has been revised over the course of three years and multiple classes. The gameplay data collected shows that students are engaging with the game as desired, spending appropriate amounts of time in the right section.

Students take many different approaches to decision-making in the game, and play at many different times and for different durations. Some students used the opportunity to immerse themselves in Spanish as much as possible, while others used only the minimum amount of Spanish necessary to progress in the game.

Challenges

At first, when students were given the iPod Touch only for the short duration of the field trips, they could not review the material or recall the affordances of the mobile technology. The game is now split into two major sections, the first of which is simulated and allows students to use the iPod as they wish, for homework.

Benefits

Students were enthusiastic about the use of the game and how it connected them to the community and the language far better than a typical classroom-based activity. Residents of the Los Griegos neighbourhood were also pleased that their community's history was recognized and appreciated by the students and the university. Overall, students found the game empowering and engaging and contributed positive suggestions on game improvement and how it could be integrated into the classroom.

Related Links

- <http://www.mentira.org>
 - <http://arisgames.org/>
 - [Leveraging Mobile Games for Place-Based Language Learning \(PDF\)](#)
-

Project

Collaborative Lecture Annotation System

Institution

University of British Columbia, Vancouver, Canada

Description

Arts ISIT (Instructional Support and Information Technology) is in the process of developing a classroom tool for lecture annotation. The project was initially proposed by the Department of Psychology's Brain and Attention Lab to study how people pay attention to videos. It will be used in a number of classes as well as the study. In the Faculty of Medicine, CLAS will be used to help evaluate students' interviews with patients. In the School of Music, it will be used to review performances in the Conducting department. The eventual goal is to make CLAS a synchronous tool that can be used on live video as well as pre-recorded, so that students can make live notes during a lecture for review later. This will also help faculty to see how students are interpreting and understanding their lectures.

Devices

App for iPad/iPhone as well as web-based tool for laptops and any web-enabled devices

Results

In development for Fall 2011. The project will be tested with the School of Music in October, and with Medicine in January.

Related Links

- <http://www.arts.ubc.ca/faculty-amp-staff/arts-isit.html>
-

Project

Mobile devices in teacher training

Institution

Stafford College, Stafford, UK

Description

The program aimed to develop new skills for teacher trainers as well as all College staff.

Devices

Netbooks, digital cameras, Flip video cameras, and a clicker voting system

Results

Both the teacher trainers and the trainees incorporated the devices into their teaching in a variety of ways, including using voice recording for language teaching, videocameras for research projects and group work, lesson planning and exercises using the laptop, and polling and testing using the clickers.

Challenges

The teacher trainers were initially wary of the new technology, but found that sharing ideas amongst themselves and the trainees helped address their concerns.

Benefits

The teacher training team noted a significant increase in teaching quality, especially on a project dedicated to new technologies in teaching. They have also seen much greater use of Moodle as trainees upload their work, share their resources with other groups, and create and upload material in podcast and video format. The e-learning team also feels confident about their own improved skillset and ability to integrate what they have learned into other areas of the College.

The UK's Office for Standards in Education (Ofsted) also raised the status of the teacher training provision in their next inspection.

Related Links

- <http://www.excellencegateway.org.uk/316178>
-

Project

Stanford Mobile

Institution

Stanford University, Stanford, USA

Description

Stanford Mobile is a suite of applications for various mobile devices. Some of these offer standard campus information such as news, maps, calendars, and directories. Others enhance academics; students can add and drop courses, view their bills, find buses and see their locations en route in real time, stream and download lectures, and request a safe escort across campus. Still others extend the campus suite in unexpected ways, such as data visualization tools and a trivia game.

Devices

iOS (iPhone / iPad), Android, Blackberry, and web-based. Some apps are available for all platforms, others for just a few.

Results

The suite has met with rave reviews from students. Some of the applications were proposed and developed by Stanford students, who then continued on to create private companies. One such application, CreditU, rewards students for class attendance by allowing them to “check in” in a manner similar to Foursquare and gain credits towards cheaper campus meals and other incentives.

Related Links

- <http://mobile.stanford.edu/>
 - [Galvanizing Your Campus to Go Mobile](#) (Powerpoint)
 - <http://itunes.apple.com/us/app/istanford/id292922029?mt=8#>
 - <http://chronicle.com/article/The-Slow-Motion-Mobile-Campus/127380/>
 - <http://vimeo.com/7271580>
-

Project

Flood Disaster Simulation using SMS

Institution

University of Aberdeen, Aberdeen, UK

Description

A Flood Disaster simulation using SMS text messaging and email was developed for final year undergraduates in an Applied Geomorphology class. The simulation took place over three days, during which students were sent messages which described a situation and required them to make a decision between two options. This decision would affect the course of the simulation. Students could request more information to help them make their decisions.

Devices

Any mobile phone with text messaging

Results

Learners enjoyed the innovative, real-time nature of the simulation, but said they would not want “too much” mobile learning in the course. Students discussed the simulation and decisions with each other. Many learners were engaged and became emotionally involved in the simulation, while others simply guessed at responses.

Challenges

Accessibility concerns and the potential for learners to incur costs led to the development of a ‘back-up’ email system which ran alongside the SMS system. Sometimes SMS messages were not delivered, or delivered out of sequence.

Benefits

This type of simulation is scalable to any number of participants. While there were some concerns initially about the SMS messages intruding on students’ personal time, many students actually appreciated the real-time messages; one student stated that ‘you feel more involved in the thing because you didn’t know when you were going to get the updates... that was fun.’

Related Links

- <http://escalate.ac.uk/8250>

- <http://www.slideshare.net/jiscrcsyh/real-time-simulations-using-sms-university-of-aberdeen>
-

Project

Emergency Management Resources

Institution

Justice Institute of British Columbia

Description

The Justice Institute, in collaboration with the RCMP, developed an online course for first responders in emergency situations, who often cannot attend traditional face-to-face classroom-based courses due to scheduling and travel issues. JIBC created a digital object repository consisting of exercises, video clips, audio clips, walkthroughs, and forms, and offered it to the public for free. They also developed a glossary app, JIBC ICS/IMS, for use in the field.

Devices

The materials can be accessed through a web browser, phone, or tablet. The app is available for iPhone/iPad.

Results

The community response has been far greater than anticipated, with users not only from the traditional emergency management community, but also institutions and others interested in maintaining safety. Elements from the repository have been used in Ontario and Alberta emergency management programs, and others report usage all across the world. In one year the repository had hit its three-year student target and anticipated number of visitors. JIBC's tools have assisted first responders in Haiti and Japan during disaster relief. They also received a number of awards for their work in the field.

Challenges

JIBC had to reconsider their usual process for developing courses, and convince faculty of the benefits of offering tools and content for free.

Benefits

The site and apps have been extremely well received, and the door has been opened for more community collaboration and future development.

Related Links

- <http://www.myemresources.com/>
 - <http://itunes.apple.com/ca/app/jibc-ics-ims/id506721629?mt=8>
-

Project

Creative Writing on Mobile Platforms

Institution

College of the Rockies

Description

An online creative writing course was adapted to include social media resources such as Twitter, Facebook, and blogs that could be accessed through mobile technologies in addition to the regular course material in the LMS.

Devices

While the mobile components could be used on either desktops or mobile devices, it was expected that students would prefer to use their smartphones or tablets for convenience.

Results

In general, the students were reluctant to use the mobile components as well as the social media tools. Twitter was perceived as too public, and while the students were willing to read and research through Twitter, they were unwilling to participate in the conversation. Most students simply preferred to use their desktop computer for class work.

Challenges

Teaching a group of students with a diverse range of computer skills required a great deal of flexibility and willingness to adapt to the students' needs. Different options were offered for assignments, some which required the learner to go out and interview subjects or spend time in nature, but others which could be done at home at a desk.

Benefits

Angela Abdou, who taught the course, found that using the mobile tools gave her better ways to engage her students while traveling and attending writing conferences by sharing relevant resources instantly as she found them. Students appreciated this approach.

Project

Mobile devices in Recreation & Leisure course

Institution

Langara College

Description

Steve Musson in Langara's Department of Recreation Studies course offered a course, Foundations of Leisure and Recreation. The two main assignments of the course required the student to venture out into the community and record

material for the assignment, whether as photographs, video, or otherwise, and post their results on student blogs.

Devices

A “mobile device” was considered to be anything that you could walk around with, even pen and paper if need be. For most students, it was a smartphone, but others used digital cameras. Musson says, “The mobile refers to the learner. I need to get the learner mobile, and that they need to record something is secondary, and it’s really, really important.”

Results

Students engaged more with the material and a larger percentage of them actually overperformed, compared to past classroom-based offerings of the course. From the strength of the first assignment, the course schedule was adjusted to allow students more time to review and discuss each other’s work before the second assignment was due.

Challenges

Specific constraints were set on how the technology could be used and how the material could be presented, so that students who were less comfortable with the technology would not be at a disadvantage, and that the focus would remain on the course content rather than on flashier presentations.

Benefits

Student interest and engagement was considerably higher than normal. The students felt empowered to share their experiences and ideas with others. ESL students also had opportunities to engage in the material and present their ideas in a different format than traditional essays and tests.
