

2009 Reports

E-LEARNING ENHANCEMENT

Dr Robyn Chirnside

Developing a web-based resource for Clinical Skills Teaching in Dunedin Hospital

The website, as part of a package comprising Skills lab support and a 4th year log book has been moderately successful. The soft launch because of construction delays has meant that the website is still being introduced to some students. The website is supported by a paper log book and a newly renovated skills lab with the appropriate consumables, environment and teaching staff. Clinician access has been slow, though recent GP contact will improve this. Integration of the procedural skills site with other clinical information is yet to occur.

Dr Peter Gallagher

If a blended delivery approach to support those clinicians who teach medical students is developed, what would that support comprise?

Participants

The participants were clinicians located at least 100kms from a University of Otago campus. Twenty three clinicians volunteered and 19 were interviewed.

Interviews

Nine interviews were undertaken by telephone, 9 face-to-face and 1 by email.

Findings

Overwhelmingly, participants reported that they had a very positive association with the University of Otago. However, they also strongly expressed the following:

- A need to feel connected to the university and with each other.
- A wish to receive regular feedback on aspects of their performance as a teacher.
- A propensity to be self motivated and collegial problem solvers.
- A desire for clarity in their role as clinical teachers.
- A general level of comfort with information technology (IT) and a desire for technological educational support which is easy to access and use.

Making connections

The data analysis was discussed with university experts in education and technology. They recommended connecting clinical teachers using video conferencing software.

The software was trialled and although the technology proved erratic we concluded that it has great potential to connect clinical teachers in a "Community of Practice". Our final report offers practical recommendations in respect of how that potential may be realised.

Dr Mark McGuire

Using Podcasting to create and share open learning resources

Podcasting, blogging, and related sites and services (Unitube, YouTube, Flickr, Facebook, etc.) were used to enable students in 200-level and 400-level Design Studies and Science Communication papers to use and create Open Educational Resources. We also collaborated with a 200-level Communication Design paper at Otago Polytechnic, sharing lectures and resources. Collaboration between students did not occur to the extent desired and expected. Pairs and groups tended to divide up the tasks associated with the creation of blogs and podcasts than work together and learn from one another. 400-level students worked on projects relating to sustainability and often connected with, and contributed to, community projects and events. 200 level students worked on projects that contributed to community initiatives, including the Fair Trade Dunedin initiative, retail marketing for the Trade Aid shop, and event design for Climate Change Awareness. Concerted efforts to connect the blogs and podcasts to specific client or target audiences would have extended and enhanced the dialog.

Course Blogs for DESI 222 (2009): <http://communicationdesignproject.wordpress.com/>

Course Blogs for DESI 436 & SCOM 407 (2009): <http://sustainabledesignstudies.wordpress.com/>

Course Blogs for DESI 436 & SCOM 407 (2010): <http://markmcguire.net/>

Sustainable Design Podcast (2009): <http://unitube.otago.ac.nz/album?a=QRAFazqGQS>

Communication Design Podcast (2009): <http://unitube.otago.ac.nz/album?a=mXq0bNudTQ>

Ms Sarah Rennie

Development of an e-learning tool to support teaching and learning of surgical decision making for undergraduate medical students

<http://sdm.otago.ac.nz>

Decision making is a vital aspect of being a competent doctor. Despite being recognised in the undergraduate medical curriculum and in the postgraduate surgical training curriculum as a core competency, it is often not explicitly taught. This project is designed to support the development of clinical bedside decision making skills by undergraduate medical students and surgical trainees in surgical settings.

The eLearning package is aimed at all levels of surgical training from the advanced learning in medicine years through to postgraduate study. It uses the Otago Global Decision Making Model generated from previous research conducted in the surgical department as the framework for learning. The package uses five interactive short cases supported by tutorials to deliver material exploring decision making methods and the factors that influence surgical trainee decision making.

The aims of the project were to raise awareness of the factors that may influence surgical decision

making, provide a framework for understanding surgical decision making observed in others, and facilitate reflection on how to improve surgical decision making skills.

Ms Joy Rudland

Basic Science Alive: Integrating Science and Clinical Practice

Basic Science Alive (BSA) is an eLearning site that allows students to write presentations, share them with peer and staff reviewers, and write reviews on peers' presentations. These presentations are template-structured overviews of a basic science concept related to a clinical scenario.

After students are logged into the system, they can select from a range of 32 concepts on which to write a presentation. Then they complete five MCQs related to the chosen concept before writing their presentation. After the presentation is written and submitted, students take the identical MCQs (for pre- and post-intervention comparison) and receive feedback on the pre- and post-tests showing the answers they had given for tests, the correct answers, and their score. Once a presentation is submitted, reviewers are able to read and review the presentation. Reviews are completed using a structured template. Once a review is given, the authors are able to read the comments and rewrite the presentation (if necessary).

Whilst some students engaged actively in the site the majority of students failed to submit a presentation. The lack of engagement was explored. Those that did interact found the writing of presentations more beneficial than the peer review component.

INNOVATION IN TEACHING

Dr Sarah Wakes

Kaupapa Māori Design Process and Practice

This project introduced a kaupapa Māori approach design process within communication design papers. Issues of misappropriation, complementary design processes to the universal world view of design and cultural considerations were explored in both theory and practice with students. This enabled students to critically examine their own culture and that of New Zealand in order to enhance their design work, understanding of the design process and their relationship to clients. A project for a non-profit Māori client allowed students to put into practice the kaupapa Māori design process and explore aspects of interaction with clients in a cultural and design sense. Key recommendations were made regarding human resources, use of digital resources and strategy.

<https://wiki.design.otago.ac.nz/groups/maoridesign/> Examples of student work and reflection can be found on <https://wiki.design.otago.ac.nz/groups/teroopumaori/>

RESEARCH INTO UNIVERSITY TEACHING

Dr Antonie Alm

The development of an inventory of metacognitive and technical listening strategies for online digital listening

It was the aim of this project to identify strategies for online second language listening (technical and meta-cognitive) and to establish how these strategies are best implemented in a classroom-based learning environment. 28 students of an intermediate German class participated in this project. The analysis of their blogs, surveys and focus groups interviews (n=15) indicates that authentic use of podcasts triggers the appropriate use of listening strategies.

Podcast use

- a) Personal learning environment: Most students expressed a strong preference to listening to podcasts in their home environment, rather than in class/ computer lab.
- b) Choice: Being able to listen to a podcast of one's choice was an important element in uptake and time spent on task.
- c) Social interaction: Blogging interaction with others enhanced podcast use;
- d) Integrative motivation: Podcasts on German society provided learners with insights into target language culture and increased learner motivation;

Strategy use

- a) Authentic use of podcasts (see above) influenced strategy use. The survey revealed that the majority of students used a range of technical and meta-cognitive listening strategies.
- b) Interviews and blog entries showed that listening strategies were not learner-type specific but related to the type of podcasts.

Mr Russell Butson

Students' personal use of technology to support learning in higher education

The aim of this study was to gain insight into the ways in which students were using computer technologies in their personal study methods by capturing student voice and experiences. This is an emerging area of research. Learner perspective on e-learning is largely overlooked in research and development projects (Sharpe, Benfield, Lessner and De Cicco, 2005). This point notwithstanding, it has been shown that studies focused exclusively on learner voice can reveal new and often unexpected issues not identified in other types of research (Creanor, Trinder, Gowan, & Howells, 2006). Student experience focused studies may in fact be the only suitable method for highlighting complex issues involved in technology and life.

The point of difference in this research project from traditional eLearning research projects was its focus on the student's experience and their use of technology to support their learning rather than on the teacher and their use of technology to deliver content (eTeaching). While there have been many

evaluation studies of eLearning most have focused on learning as a result of using particular eTeaching approaches. There have been very few studies that have focused on the tools and experiences that students employ generally in their academic activities and only a handful that have used the student experience as a starting point.

In addition to seeking to ascertain students' perspectives through surveys and interviews, this research sought to elicit students' points of view by asking them to engage in self surveillance techniques. Because we wished to trace students' actual practice in addition to their reported practice and because conventional data-gathering methods are limited in their capacity to reveal students' daily technological and academic practices, we adopted an autovideography approach. Students were asked to create video and audio records of their use of computer technologies in their academic activities, thus positioning themselves as researchers into their own authentic study practices.

The data revealed that, although the student participants were experienced users of computer technologies in social contexts, they were very inexperienced users of these technologies in their academic pursuits. They depended heavily on paper-based systems for drafting, planning and information management and perceived computer technology as an adjunct rather than as a necessity. While our participants felt computer technologies were important within an academic environment, they all admitted they did not use computers or rate them as adding value to their current study practices. The reasons the students cited for this included: that they were generally unfamiliar with the productivity software available to them and that many teaching staff discouraged the use of world wide web resources.

Professor Kwok-Wing Lai

Evaluating teaching and learning experiences of distance lecturers and learners

Evaluating teaching and learning experiences of distance lecturers and learners is a project that aims at deepening our understanding of how knowledge construction is effectively supported in a text-based online learning environment. The project also provides insights on how quality teaching and learning can be undertaken online, using an open-source technology (Moodle) and across a broad range of papers and a variety of teachers. The findings of the study contribute to the improvement of online teaching programmes offered by the College of Education.

Dr Helen Moriarty

Does training to act in-role facilitate consultation skills learning through role play?

The main aim of the present study was to evaluate the development of consultation skills (motivational interviewing and brief intervention) in successive cohorts of fifth-year medical students (year 2009 as control group and 2010 as intervention group), before and after the introduction of an intervention designed to enhance role play. The successful collection of a 2009 data set was fundamental and will be instrumental in achieving that aim. Since fifth-year medical students of 2009 and 2010 are the last cohorts to pass through the old undergraduate medical curriculum, this project

seized a final opportunity to test any teaching innovation before the curriculum changed (new curriculum cohort reaches year 5 in 2011). The present study has established a “2009 pre-curriculum change” baseline against which future medical student cohorts, trained through the new curriculum, may be compared.

Year 5 Psychological medicine module evaluation currently includes an evaluation of the practical skills sessions. Of particular interest will be changes in student evaluation when they have experienced the Teaching Intervention now introduced in 2010. Already the student body leaders have indicated interest in repeating and extending the Teaching Intervention to help with student preparation for the end of year 5 OSCE.

An evaluation form has also been incorporated into the AKO Aotearoa web resource and those evaluation results will become available for analysis once the resource becomes live.

Associate Professor Alison Rich

Does performance in selection processes predict performance as a dental student?

The primary aim of this project was to investigate associations between student performance in the three components of the dental student selection procedure at the University of Otago (academic merit, UMAT and admission interview) and subsequent performance as a dental student. Bivariate analysis showed that students' preadmission academic average was associated with place in class in Year 2, but not final year. There was a significant positive association between higher place in class in 2nd year and stronger performance in UMAT Section 2, and in the overall UMAT score. A similar pattern was observed for overall performance in the final year, but it did not reach statistical significance. These associations did not remain when confounding variables were controlled for. Interview performance cannot be used as a predictor of success after acceptance into dentistry for this cohort since all students accepted into the course had to have performed very well in the pre-admission interview. Only one class selected with on the basis of preadmission academic performance, UMAT and interview score had graduated at the time of data analysis so a weakness of the study is insufficient numbers of graduating students. The cohort will continue to be followed and further analysis of their success throughout the degree and in professional activities will take place in the future.

Professor Kerry Shephard

Exploring presentation styles on the Access Grid in teaching and research situations

Universities are increasingly using advanced video-conferencing environments to interact for teaching and research purposes. Those who use these technologies expect professional development support to do so but we do not yet have a comprehensive research platform on which to base this support. The research undertaken sought to explore research protocols that could enrich our understanding of this domain, based on exploratory quantitative analyses of presenters' behaviours and participants' perceptions of presentations. The research identified a number of presenter-behaviours that predict

overall participant perceptions and that discriminate between categories of perceived presentation quality. The research also focused on participant perceptions of 'being included' and of 'being looked at' by the presenter and related these to presenters' behaviours. We conclude that this research approach is capable of producing realistic guidelines for presenters but that these do need to address the particular circumstances in which presenters find themselves.

Dr Sarah Stein

An investigation into the nature and role of support networks developed by distance students

Retention of students has, in particular, long been recognised as a problem in distance education. Development of effective support networks is recognised as a factor contributing to enhanced learning outcomes for distance students - especially with regard to retention. This research used the broad analytical framework provided by the Approaches and Study Skills Inventory for Students (ASSIST) instrument (Tait, Entwistle & McCune, 1998) to explore the ways in which students with different approaches to study may develop and use networks in support of their study. As well as responses to the ASSIST questionnaire, data also included individual interviews with a small group of volunteers. The ASSIST questionnaire resulted in an overwhelming majority of the respondents' studying approaches were high deep and strategic, and generally low on the third scale, surface apathetic. A particular aim of the interviews was to gain insights into individual contexts, including the support networks students drew upon during their study. Students reported their reliance upon family and close friends, but also work colleagues. There was some reliance upon lecturers and, in general, less reliance upon fellow students. In general, students assumed responsibility for initiating networks of support. Implications for teachers and the institution include the need to provide explicit support for students in developing a metacognitive approach to their learning, that is, the development of a self-awareness of their studying approaches and habits. In this way, students will be better placed to be able to seek the type and nature of support networks that facilitate their learning best.

Dr Emma Storr

International medical students: factors that enhance and inhibit learning

31 semi-structured interviews with international medical students in Dunedin and Wellington have been carried out in order to identify factors that enhance and inhibit learning. Initial analysis of the themes using Atlas software include: culture and academic shock, alcohol issues, learning styles and adaptation to a different educational and cultural environment. Factors that can inhibit learning include language problems, accent, familiarity with slang and negative tutor and domestic student attitudes. Factors which can enhance learning include considerate tutor facilitation, clear expectations, help with presentations and written work and mentoring by more senior students. Student support services such as the International Student Centre, Student Health and the International Student Associations play an important role but are sometimes underused or not accessed appropriately and not all international students are aware of what the University of Otago can offer them in terms of pastoral support.

Initial suggestions for improving the learning environment include specific help with written work, sensitive tutoring with opportunities for students to seek clarification about any tasks involved and a plea not to be stereotyped by domestic students or staff. Training in cultural competency for all clinical tutors would be helpful and using international students' experiences in teaching would help promote intercultural awareness among health professionals.