

Flexibly healthy and safe

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The mind-numbing delivery of Health and Safety information to incoming students seems to be a compulsory part of every student orientation in order to meet institutional policy requirements. In addition, “for putting in place systems and processes that promote injury prevention,” ACC provide significant discounts of Workplace Cover levies, a worthwhile goal in these financially constrained times. (ACC 1)

However, the standard Powerpoint presentation as a medium for this information has limited appeal to students and provides no guarantee that students have engaged with or understood the health and safety message.

Students in the second year Software Engineering course at Otago Polytechnic were asked to develop a more engaging system through which students would be “presented with H&S information, assessed on information via a quiz, and have results recorded and saved for future manipulation”. (Wiki) The OP Health and Safety officer was the enthusiastic client for the project, which while initially scoped as a School of IT project, was seen as having wide application across the institute.

Options for delivering the H&S message included online delivery through a custom built website, Blackboard or Moodle. With the imminent removal of Blackboard by OP, Moodle was selected as the optimal and futureproof solution. It was planned to have a quiz based delivery which would meet ACC requirements. “All health and safety information and training is delivered so that the key messages are clearly understood, taking into account language, literacy, vision, hearing or other variables.” ACC2

The students used an Agile Development Framework, (Smith and Mann) fully documented using a project wiki. The methodology required three iterations: an initial prototype in Blackboard, the second iteration in Moodle providing sufficient functionality for student user testing and a final robust version which was used for staff training.

This development proved to be a test case for the OP Moodle support team, as the students attempted to add interactive and visual materials and assessment tasks to the Health and Safety course. The Moodle environment as locally implemented was far from perfect, with limited global editing facilities. Issues included peculiar font colours (white on white background for class list display) and significant usability issues when saving and editing lessons through the built in text editor. The students spent considerable time exploring Moodle forums, eventually identifying several known bugs in the system.

After intensive consultation with staff, the students constructed a robust and useable system for online delivery of generic Health and Safety training to all

incoming students in Semester Two, 2009. In addition, they have trained staff in each School to develop and maintain content to allow contextualized Health and Safety material to be added to the system.

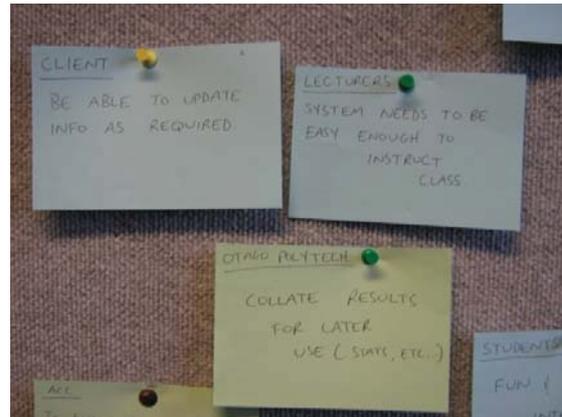


Figure 1: Planning Game



Figure 2: Final Screen

Mann, S. and Smith, L.G. (2006). Arriving at an agile framework for teaching software engineering. 19th Annual Conference of the National Advisory Committee on Computing Qualifications, Wellington, New Zealand, NACCO in cooperation with ACM SIGCSE. 183-190

ACC Workplace Safety Management Practices Audit Standards,

http://www.acc.co.nz/PRD_EXT_CSMP/groups/external_communications/documents/guide/wcm000512.pdf

ACC1 ACC Workplace Safety Management Practices
<http://www.acc.co.nz/for-business/small-medium-and-large-business/how-to-pay-less/BUS00054>

Wiki

http://bitweb.tekotago.ac.nz/wiki/index.php?title=2009-01_Software_Engineering