FWI Funding Report
“Solving problems with statistics: A blended learning approach”

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Faculty/Area: Science / Psychology, Neuroscience & Behaviour / Education and Cognition
Project title: Solving problems with statistics: A blended learning approach

This FWI project initially planned to develop several small online modules to facilitate a blended learning adaptation of Psychology, Neuroscience & Behaviour’s statistics courses. This plan was substantially delayed when the initial principal applicant left the university shortly after the FWI was awarded.

During this delay, while we were unable to produce final course modules, we completed substantial project planning and development, and research and information gathering from many stakeholders: former, current and prospective undergraduate students, regarding their experiences in these courses and course issues they felt could be improved; faculty subject experts; faculty and staff from other departments and units whose teaching is related; faculty, staff and graduate students whose academic or applied work or teaching relies on what we might teach in statistics, and how we teach it; and faculty, staff and graduate students whose research and expertise in teaching and pedagogy could help refine and guide our work.

We used this initial research and course planning and development to apply for a full-course equivalent contract from the Ontario Online Initiative (OOI), to develop a full set of online modules to enable on-line delivery and blended approaches for an entire undergraduate statistics course (a substantial increase in scope from our initial FWI plan). Our application was successful, and fully funded for $72,000 from OOI. From February to August 2015, we successfully extended our FWI project and funding to incorporate this much larger project.

The completed OOI modules are now available (technical production and online hosting via MIIETL) for all partner universities across Ontario. Without the initial funding from FWI, we would not have been able to develop, test and refine our initial plans and materials, and would have been much less likely to have been successful with OOI. In addition to the substantial finished product, we also provided substantial training and professional development in pedagogy, curriculum design, and many other teaching and technical skills to nine graduate students, many of whom have already gone on to be involved with similar projects and jobs elsewhere both within and outside of the university.

These online modules are currently being incorporated into our own statistics teaching in Psychology, Neuroscience and Behaviour, and enabling these classes to transition to a more blended teaching approach. We plan to study and assess the impact of these changes on student
learning, satisfaction, and engagement over the coming years, and use this feedback to continue
to refine these courses.