Teaching about Diversity Fund

Final Report

Project Name: Promoting Diverse Learning through the Use of Interactive Visual Elements: In-Class and Online

Date: June 30, 2014 Submitted by: Andrea Moraes
Year of Funding: 2013-2014

Project Abstract (max 200 words)
Your abstract of your findings should include enough detail so that rationale, methodology and outcomes are clear. Use plain language as this abstract will be posted on the LTO website.

This project promoted diverse learning through the creation and delivery of eight interactive visual elements for the online course CFNY 409 – Gender and Food Security. These presentations were produced using an eLearning development program, Adobe Captivate 6 that combines visual materials (images, audio, video, diagrams) with interactive quizzes, simulation and branching opportunities. The interactive components promoted student reflection, critical thinking and provided student choice in learning path. This pilot delivery of the new elements was closely evaluated for student input and improvements.

Outcomes of this pilot project include the production of the eight interactive presentations of course content for CFNY 409 Gender and Food Security; the generally positive student evaluation of the interactive presentations; as well as interest by other faculty and staff and development of new technical knowledge at the Chang School.

A poster of this project was presented at the Ryerson Faculty Conference on May 22, 2014.

Summary of Work Accomplished (max 1500 words)
Describe the study rationale (including supportive literature), project methodology, outcomes and potential application of outcomes.

The course CFNY 409 Gender and Food Security was created in 2007 by two faculty members and content experts from Ryerson, Dr. Cecilia Rocha and Dr. Iara Lessa, with my collaboration. This course offers a theoretical framework for understanding and addressing gender and food insecurity, a topic of continuing relevance.

Since the course development in 2007, publications in the area of gender and food security have significantly increased, and this is reflected in the current readings suggested for the course. The result is an online course with a strong focus on textual material.

Throughout the course offered in the fall 2012 term, many students identified themselves as visual learners and suggested the use of more visual elements to enhance and connect learning. The instructor began to use power point presentations summarizing discussions. This was very much appreciated by all students.

Expanding on this initiative, this project aimed at recognizing diversity in learning preferences and encouraging more student engagement with their learning process by
creating a visual, attractive and interactive presentation of the course content within the modules. The visually enhanced version of the course was adopted for online delivery in the fall of 2013, retaining the existing textual components as effective combined learning. The software Adobe Captivate 6 was selected because it enables visual presentation capabilities, and provides opportunities for student interaction, video, audio and simulations.

Since the 1980s, development psychologists such as David Kolb (learning styles) and Howard Gardner (multiple intelligences) have suggested that individuals have different learning preferences. There is no doubt that a learning environment that offers a variety of experiences and tools can stimulate and increase learning retention. As a matter of fact, active learning and respect to diverse ways of learning are within the seven principles of good practice in undergraduate education recommended by Chickering and Gamson (1997). In this respect, our project aimed at encouraging active learning by fomenting more interaction with course content, by including digital self-learning tools, such as highlights, pop-ups, and quizzes. Moreover, it aimed to respect diverse talents and ways of learning by providing course content not only through text, but also through video and audio, and interactive tools (learning by doing). Students were also be able to track their own learning process throughout each module. This was one more potent tool to help to improve learning retention and engage students with diverse learning preferences.

The focus of the course itself deals with issues of gender inequality and social inclusion and is therefore an ideal choice for the types of visual improvements suggested. Making this course more attractive to students may mean increasing visibility regarding Ryerson’s dedication to the national and international issues of gender inequality, poverty and social exclusions explored throughout the course.

The tangible outcomes for this project were the production and delivery of eight interactive presentations enhancing the content of eight core modules from the Gender and Food security course. The presentations were developed by the two by co-applicants in continuous conversation with designers from the Chang School. From this interaction it was decided that both the Captivate and Blackboard formats were going to be offered in the Fall of 2013. Moreover, that the elements introduced in the captivate presentations would be translated to the blackboard format.

Finally, because the software Captivate 6 has not been used extensively yet at Ryerson, this was a valuable pilot experience. Not only through the challenges faced and shared with the applicants and designers from the Chang School, but with the results presented to wider academic community, at the Faculty Conference in May, and other presentations.

**Evaluation of Project’s Success (max 600 words)**

Explain how you know that the project was successful (Include evidence of rigorous evaluation.)

In our proposal we had stated that success would be achieved if: a) all the interactive presentations are delivered and working; b) all students access the interactive presentation at least one time during each module; c) collective student evaluation of the interactive presentations is positive; d) the interactive presentations generate interest by other faculty. All four indicators were achieved.

a) All the interactive presentations were delivered and working.
Eight interactive captivate presentations that included the course content for eight modules, plus self-learning tools and quizzes, as well as visual elements and videos were produced. They were regularly shared with designers from the Chang School with whom were discussed how to host them, the challenges and recommendations for accessibility and respect to copyrights issues for images. In this context, it was decided that the captivate presentation would be offered in parallel to the blackboard version of the content, in order to guarantee the continuity of format across certificate courses.

b) All students access the interactive presentation at least one time during each module.

All students from the course Gender and Food Security Fall 2013 reported accessing the captivate presentations of each module at least once. They were introduced to the presentations in the beginning of class, and asked to evaluate them at the end of the course. Unfortunately, the Spring in class version of this course was not offered in 2013.

c) Collective student evaluation of the interactive presentations was positive.

At the end of the term, students were asked about the positive and negative of the Captivate presentations. They reported using and enjoying the self-learning tools and interactions, and the fact that they were very explicit and easy to understand. In addition, that they were conductive to learning. They were also excited to learn how to use a new software presentation.

As for negative aspects, students reported lack of familiarity with the software (especially in the beginning) due to the fact that all other certificate courses uses other format. They also pointed out that the linearity of the presentations (one slide after the other) was a disadvantage in comparison with the blackboard format (where one can scroll among different parts).

d) The interactive presentations generate interest by other faculty

During the Ryerson Faculty Conference, a poster about this project was presented. Several faculty members stopped by and asked questions about the project. They were especially interested in the use of self-learning tools, and accessibility tools.

In addition this was a real pilot design project at the Chang School. Discussions on accessibility and hosting capabilities were fertile. First because there were no previous guidelines in developing e-learning modules with Captivate at the Chang School. Secondly, because challenges in adhering to AODA (Accessibility for Ontarians with Disabilities Act) had to be identified and resolved.

**Transferables (max 500 words)**

List and describe knowledge gained in this project and how that knowledge could benefit faculty members in the Ryerson community

We identified three types of knowledge gained in this project that could benefit faculty members in the Ryerson, in respect to (a) technical knowledge; and (b) feedback from students.

(a) – Technical knowledge
As mentioned before, all modules produced using Adobe captivate were regularly examined and discussed with designers from the Chang School. Due to the fact that this software has not been consistently used at Ryerson, there were no existing guidelines for using them and guarantyng they were properly presented, hosted as well as in adhering to AODA. This technical knowledge had to be developed during the production of the present pilot project. Because designers from the Chang School assist many other professors with their technical support, the technical challenges overcome by this project are expected to benefit other course projects involving not only Captivate 6, but also other related software.

Also, during the production of the Captivate, a general revision for the Course CFNY 409 was also approved. As an unexpected result from the Captivate presentation, some self-learning elements that were available at Captivate – were also translated into elements to Blackboard. This helped increase the repertoire of ideas for interactive elements available to faculty at the Chang School.

(b) – Feedback from students

Two topics raised by students seem to be of special value for teachers interested in improving their course presentations.

The first one is the effect of self-learning tools and other visual elements. Student reported enjoying to use them, and affirmed that these tools help making the course more attractive and fun. In other words, they are an effective tool to promote learning, and this pilot project reinforces this conclusion.

Secondly, students reported liking a mixture of consistency and challenges. This means that they like to learn new software and tools, at the same time that they appreciate some consistency among courses. If the Chang School one day decides to change the main format for course delivery, it seems that students would appreciate some form of consistency.

**Media or Publication (max 500 words)**

List any media attention your project has received internally from Ryerson or externally. List any publications or conferences you have attended where data from this project was presented. Confirm that you acknowledged or will acknowledge the grant’s contribution to your work in media, publication or conference presentations.


We acknowledged the grant’s contribution during the conference poster presentation, not only by thanking the Learning and Teaching Office in our poster, but also by talking about it to other colleagues (please see pdf copy of poster attached).
## Financial Summary

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<th>Budget Item</th>
<th>Amount budgeted</th>
<th>Amount expended</th>
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**Total balance remaining (if any):** 2.53