BROWARD COLLEGE

TRANSFORMATIONAL TUNING

BUILDING COMPETENCIES & CONTEXT INTO ASSIGNMENTS

1 ABSTRACT

At the heart of a successful General Education Program lies the ability to create interesting, engaging assignments that accurately measure a competency. Tuning is a class-level process that brings learning competencies explicitly into learning activities and assignments. The tuning process brings real-world understanding to the purpose of general education and can help students connect more with the curriculum in meaningful ways. This poster explains a pilot process at Broward College where faculty worked collaboratively to tune a macroeconomics general education course to information literacy (IL) competencies.

The purpose of the study was to determine whether students who received intensive library research instruction and supports through the tuning process would be more proficient in the IL criteria measured.

2 BACKGROUND

As part of the General Education Program at Broward College, students must demonstrate six competencies across five subject areas. ECO 2013 Macroeconomics is a core general education course in the Social Sciences area, and Information Literacy is one of the college's six General Education Competencies.
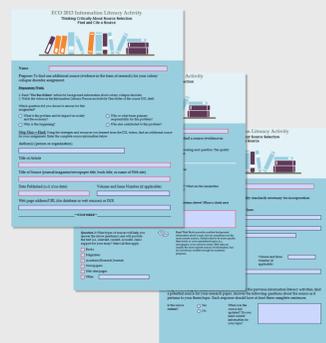
Beginning in the Spring of 2017 through the Spring of 2018, an economics professor and a faculty librarian teamed up to "tune" six of the professor's ECO 2013 Macroeconomics classes by building information literacy competencies and contexts directly into several course assignments. These tuned assignments were graded to give them value (20% of the course grade).

David Marshall presenting to Broward College faculty during NILOA's tuning training.

Professors Greg Lindeblom and Lori Albrizio

ECO 2013 Information literacy activities

3 METHODS

Broward College hosted David Marshall, NILOA Senior Scholar, to lead a professional development workshop related to tuning and creating engaging assignments.

A quasi-experimental design was employed using six ECO 2013 classes (114 students) as experimental groups and three ECO 2013 classes (63 students) as control groups over the course of three consecutive major semesters (Spring 2017, Fall 2017, and Spring 2018). The students in the control groups received no information literacy instruction or added supports.

The experimental groups received an intensive, scaffolded library research instruction component with the following added supports:

• Three information literacy assignments were created and mapped to three of the general education information literacy competencies.

• A 45 minute face-to-face introduction to library research and citation at the beginning of the term.

• A 1.25 hour face-to-face hands-on library research instruction session once the students had their approved topics for the final research paper.

• Students were provided with integrated instruction in the specific competency as well as with continuous feedback on their progress.

• Students were encouraged to attend a Citation Check appointment with a faculty librarian, where their work was reviewed for correct APA style. Students were taught how to correct any errors using the APA manual and online resources prior to turning in their final draft.

• Using the assignments and the final research paper, students were assessed using the Broward College general education information literacy rubric on four information literacy criteria: locate information, evaluate sources, use information to support an argument or to solve a problem, and cite sources.

4 RESULTS

Following a library research session for each IL competency, the IL assignments were distributed, collected, and scored using the Broward College general education information literacy rubric. This rubric was also used to conduct a citation analysis of the final research paper at the end of each of the three semesters. Figure 1 shows the experimental groups' averaged scores on all three IL criteria measured (locate information, evaluate sources, and cite sources) across all three semesters. Figure 2 shows a comparative analysis between the experimental and control groups' scores on the final research paper citation analysis for two of the IL criteria measured: use information to support an argument or to solve a problem and cite sources.

Figure 1: Tuning Results - Assignments
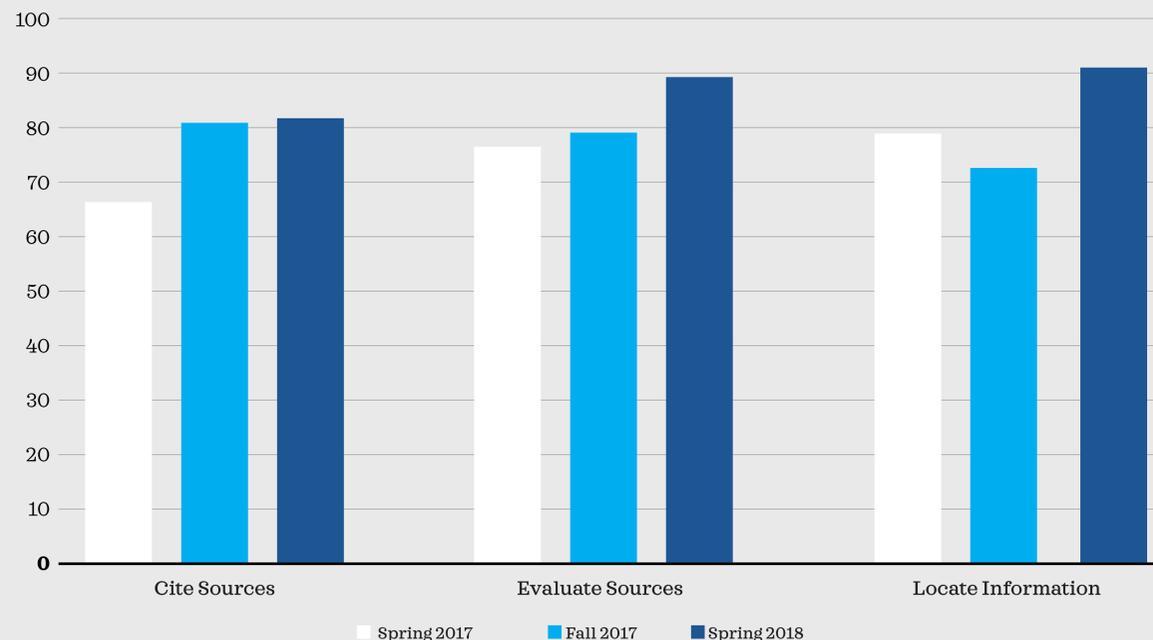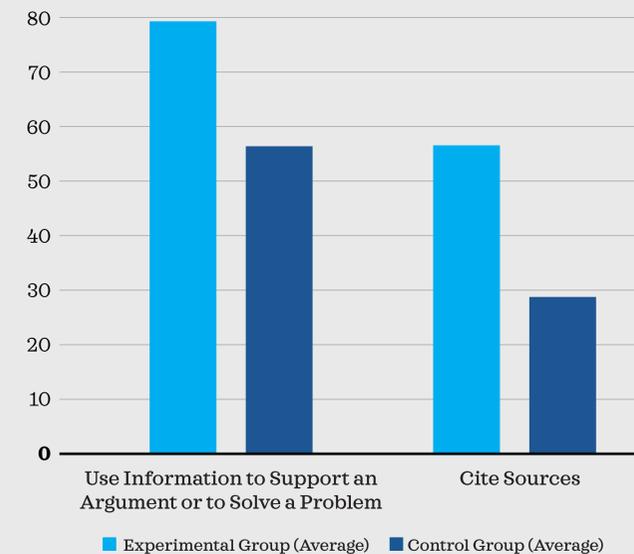
Information Literacy Assignments

Spring 2017   Fall 2017   Spring 2018

Figure 2: Tuning Results - Research Paper
Control and Experimental Comparison

Experimental Group (Average)   Control Group (Average)

5 CONCLUSION

The results showed that, over the course of three semesters of tuning and "re-tuning," experimental students showed progressive improvements in all three IL competencies measured. On average, over 75% of students in the experimental groups demonstrated or exceeded competency on IL assignments for locate information (81%), evaluate sources (82%), and cite sources (76%).

Additionally, students in the experimental groups greatly exceeded their control group peers on the IL criteria measured in the final research papers: An average of 79% of experimental group students (versus 56% of control group students) demonstrated or exceeded competency for using information to support an argument or to solve a problem, and an average of 56% of experimental group students (versus 29% of control group students) demonstrated or exceeded competency for citing sources.

Adjustments for future studies:
• Move away from a quasi-experimental design for equity purposes. In Fall 2018, an action research design was employed in 2 ECO 2013 classes, where the researchers established a baseline using the first research paper, performed multiple interventions, and then assessed all 4 IL criteria using the final research paper. Results are still being compiled.

• Focus more instructional and academic support efforts on the citing sources competency which, even after intensive interventions, still seems to be a weak point for students.

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