Evaluating the Impact of Technology-Enhanced Active Learning Classrooms on Students and Instructors: Findings from Our First Full Year

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Evaluation Goals

- Observe and learn how instructors and students are using the TEAL spaces, including both the furniture and technology equipment
- Determine how instructors and students feel about the spaces
- Identify problem areas and support needs
- Explore the impact, if any, of the spaces on student success outcomes as defined by final course grades

Methods

- Instructor Surveys
- Student Surveys
- Classroom observations
- Grade data analysis
Quick Findings
Instructor Surveys (1st month of semester check-in)

- **Response rates:**
  - Fall ’16 - 61% (91/150)
  - Spr ’17 - 48% (87/181)
  - Fall ’17 - 43% (81/188)

- **Fall ’17 Instructors:**
  - 39% TEAL veterans
  - 22% specifically requested TEAL rooms

- 69% have positive initial reactions to their classrooms
- 74% have some or a lot of experience teaching with active learning strategies
- 82% say their syllabus includes a great or moderate amount of active learning activities
- 87% strongly or somewhat agree the TEAL technology is useful for teaching
- 82% believe the TEAL classroom will have a somewhat or extremely positive effect on student learning
Quick Findings
Student Surveys (End of Semester)

- Spring 2017 response rate was only 8% (498/6100)
- Low response rate hindered findings
- 71% had taken only 1 course in a TEAL classroom; 6% had 2 or more other classes
- 83% reported that their instructors lectured most or almost every class
- 73% reported working in groups with other students most or almost every class
- 74% of students regularly bring laptops with them to class, but only 52% use them for coursework and only 12% used them with the classroom table A/V technology
- Instructors often commented that they were concerned about their students not being able to see or hear due to the classroom layout, but 80% of students said it was easy to identify who was speaking, hear their comments, and see visual content shared during class
Quick Findings  
Grade Data Analysis

- 143 total courses taught in TEAL between Fall 2014 and Fall 2017
- 126 courses had enough data points for comparison
- 91 courses showed no significant grade differences between TEAL and non-TEAL sections
- 35 courses had significant grade differences for all students:
  - 29 had a positive difference favoring the TEAL sections
  - 6 had a positive difference favoring the non-TEAL sections
- 8 additional courses had significant positive grade differences for one or more subgroup(s) of students:
  - First Generation (2)
  - Low GPA (2)
  - Low high school GPA & ACT/SAT score (3)
  - Pell grant recipients (2)
  - Under-represented minority (1)

- Participation in TEAL courses was positively correlated with 2\textsuperscript{nd} fall retention and was significant in our logistic regression retention model.
Quick Findings
Classroom Observations

Instructor Activities

Legend:
- Lecture
- Presentation
- Discussion
- Consult
- Monitor
- Other
Quick Findings
Classroom Observations

Instructor vs Student Activities

[Bar chart showing activities for different courses]