

Teaching Enhancement Awards Impact Report

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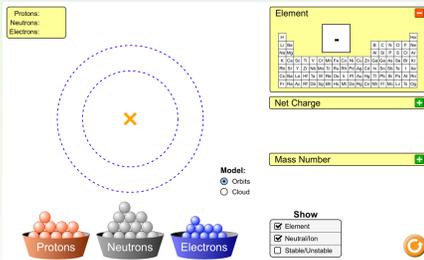
2017-2022

Joanne E. Goodell, Director, Center for Faculty Excellence

Overview of the Program

Beginning in 2015, the Teaching Enhancement Awards replaced the small grants program that had been in existence for over 10 years. Two awards of \$8,800 are made each year to teams of faculty who plan to make substantial changes in pedagogy or delivery methods based on current education research that will enhance student success and retention. Proposals aimed at revitalizing a lower division course (100-200 level) with an enrollment of 100 or more students per academic year (across all sections of the course), are given priority. **Teams** of at least two full-time faculty, including regular tenured tenure-track faculty, and college lecturers are eligible to apply. The award is split over two summers. The first summer, teams plan the course and evaluation measures. A report is written and submitted at the end of June in the second summer.

Project 2202 CHM 251 College Chemistry 1



Intervention Summary

Flipped classroom approach: students watched recorded video lectures before class and used time in class working in groups on simulations and problems. Faculty circulated to answer questions and provide hints. Problems connected chemistry concepts to daily life and situations students may encounter during their future career as health professionals.

Outcomes Summary

- Comparing the Fall semester offerings of CHM 251 over the past three years,
1. Student satisfaction increased significantly.
 2. Percent of students earning an A or B rose from 46% in 2019 to 55% in 2021.
 3. Percent of students earning a D, F or W fell from 36% in 2019 to 26% in 2021.

Funded Projects

Project Code	Project Title	Course(s)	Students	DFW rate	
				Prior	Post
1701	Course revitalization program for introduction to Psychology (PSY 101)	PSY 101	779	22%	
1702	Pursue-thru-two: MTH 87 & 116 in 1 semester	MTH 116, MTH 87	500		
1801	Revitalize BIO 202 course lectures through the incorporation of case studies	BIO 202	400		
1802	Utilize Microsoft OneNote with tablets to facilitate communication in the MTH 181 course	MTH 181	600	42%	
1901	Introduction to Visual Technology course redesign	ART 244	40		
1902	Improving moral reasoning for Engineers	PHL 215	450	10%	2%
2001	Ancient World History to 1300 AD	HIS 103	50	N. A.	
2002	Introduction to philosophy course redesign	PHL 101	129	22%	10%
2101	Pairing Accounting & Excel	ACT 222	475	31%	
2102	Testing for long-term improved learning in a large lecture course	BIO 202	350	25%	
2201	Utilizing collaborative textbook reading to improve student Learning in Introductory Physics	PHY 241	400	35%	
2202	Group problem set implementation in College Chemistry 1	CHM 251	330	37%	26%
2301	Implementing CSU Equity Task Force recommendations to improve academic success	HSC 200	338		
2302	Modernizing homework to deliver actionable feedback in Calculus I	MTH 181	374	35%	
Total Students Impacted			5,215		

Project 1902 PHL 215 Engineering Ethics



Intervention summary

1. The introduction of an ethical reasoning framework common to other professional ethics disciplines; and
2. Structuring course delivery in accord with Team-Based Learning pedagogy

Outcomes summary

In the experimental courses, 91% of students displayed a satisfactory ability to engage in moral reasoning in their papers. This contrasts with past courses where about 75-80% of students met a similar criterion. Further, 95% of students who submitted a final paper displayed a satisfactory ability to write a clear and properly constructed thesis. This contrasts with contemporaneous non-experimental courses where the rough percentage was 60%.

Project 2002 PHL 101 Intro. to Philosophy

Intervention summary

1. Replace the traditional grading scheme with a Specifications Grading scheme; and
2. Replace the lecture-based course-design with a Team-Based Learning course-design.

Outcomes summary.

The DFW rate decreased from 22% to 10% in experimental sections. An overwhelming majority of students reported positive experiences with team-based learning and specifications grading as shown below in Figures 1 and 2

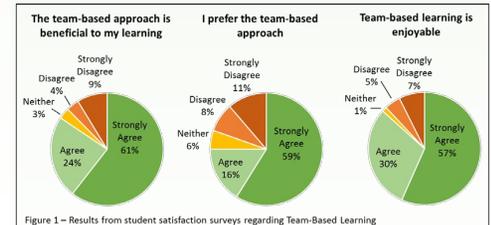


Figure 1 – Results from student satisfaction surveys regarding Team-Based Learning

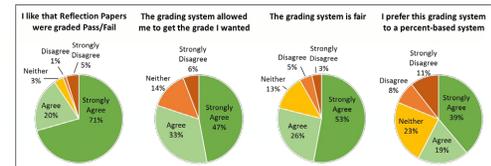


Figure 2 – Results from student satisfaction surveys regarding Specification Grading