



5-in-5 Presentations

**20th Annual POGIL National Meeting
Sunday, June 5, 2022
2:30 PM**

1. Flipping a Traditional 'Cookbook' Style Lab Manual into a POGIL Style Lab Manual

Presenter: Tina Hanson-Lewis – *California State University, Chico (CA)*

Summary: A traditional, validation oriented, 'cookbook' style general chemistry lab manual for applied science majors was transformed into a Process Oriented Guided Inquiry Learning (POGIL) oriented lab manual by utilizing a mixture between published POGIL activities and self-authored activities. The effects of the change resulted in measurable impacts to student success in the course, especially first-generation students and minoritized students, with no new lab preparations.

2. STEM Faculty Conceptions of Diversity and Grading are Linked to Racial Disparities in Course Grades

Presenter: Stanley Lo – *University of California San Diego (CA)*

Summary: Institutions are increasingly committed to diversify higher education, yet racial disparities in science, technology, engineering, and mathematics (STEM) continue to persist. Our study examines how faculty beliefs about diversity, assessment, grading, and student ability contribute to racial disparities in course grades. Survey data from 216 STEM faculty on their beliefs were linked to grade data from 31,361 students. Faculty with fixed ability beliefs endorse mindsets regarding diversity, assessment, and grading that are associated with larger gaps in course grades among different demographics of students.