

# Year in review: CAMSEE Activities AY 2017-18

## Biweekly meetings (Presenter, Title, Abridged abstract)

**10/25/17** Daniel Reinholz (Assistant Professor Mathematics, SDSU)

Title: STEM education research projects and potential collaborations

Abstract: This talk will describe my work in STEM education transformation at different grain sizes through three projects. At the student level, I describe Peer-Assisted Reflection (PAR) a problem-solving cycle for helping students learn to reflect on their work in STEM disciplines. At the teaching level, I describe my development of a web-based classroom observation tool (EQUIP) for capturing issues of equity in discourse. Finally, at the institutional level, I describe Departmental Action Teams (DATs), a tool for coordinating department members to enact holistic changes in their STEM departments. As a new professor in the mathematics department at SDSU, I'm looking forward to connecting with my UCSD colleagues and beginning to build some productive collaborations.

**11/8/17** Susan Rinaldi (Triton Achievement Partner Director, UCSD)

Title: Math Preparedness Presentation

Abstract: The Triton Achievement Hub provides services and programs (tutoring, supplemental instruction, and metacognitive tutoring) comprises a three-pillar student staff framework referred to as the Triton Achievement Partners. The presentation will provide examples of data-driven innovation and evaluation that identifies students' math preparedness and partnerships with university departments, faculty and staff in developing student success programs and services to address the math preparedness and student learning.

**11/15/17** Karthik Muralidharan (Associate Professor, Economics, UCSD)

Title: International Education Issues

Bio: Prof. Muralidharan has conducted extensive research on education and social policy in developing countries. His research has received funding from the NSF, the World Bank, the British Department for International Development (DFID), the Bill & Melinda Gates Foundation, the Legatum Foundation, the Spencer Foundation, Douglas B Marshall Foundation, and the Omidyar Network; has been published in leading economics journals including the American Economic Review, Quarterly Journal of Economics, and Journal of Political Economy; and been featured in global media outlets including the New York Times, Wall Street Journal, Financial Times, and the Economist in addition to several leading Indian newspapers.

**11/29/17** Glenna Clifton (Postdoctoral Fellow, MAE, UCSD)

Title: Motivating students--turning theory into action.

Abstract: In this short workshop, I highlight current motivational theories from psychology research and provide explicit opportunities to translate these concepts into practice. Participants

will leave the workshop with concrete ideas for improving motivation and engagement in their classes, mentorships, and collaborations.

**1/16/17** Emma Geller (Assistant Teaching Professor, Psychology, UCSD)

Title: "Peer Instruction and Learning from Errors"

**1/30/18** CAMSEE IRB protocol: Working group presentation and discussion

Lead presenters: Christine Alvarado, Melissa Famulari

Topic: An overview of the recently approved protocol for SoTL research on effective teaching practices in our classroom. Details and logistics, along with brainstorming session on how to collect syllabi and research questions of participating projects.

**2/13/18** Education Technological Services update

Abstract: Presentation of new and expanded educational technology. Gradescope will definitely be a part of it, and there are several other items we can discuss, such as results of the LMS review, video delivery pilots, multimedia and classroom tech innovations, etc. We'll also set aside time for CAMSEE members to tell us what tech tools they use that we should explore next.

**2/27/18** Diane Ebert-May (University Distinguished Professor, Biology, MSU)

Title: Evidence for predicting teaching practices in early-career biology faculty: the role of departments and institutions

Abstract: A pressing need in STEM undergraduate education is well-trained faculty who are versed in effective teaching practices. One step towards filling this gap is implementing professional development programs for early-career academics and future faculty. The Faculty Institutes for Reforming Science Teaching IV (FIRST IV) program focused on developing research-based teaching approaches in biology postdocs from 2009-2012. Since engaging in the program, many alumni have continued on to instructional positions at a variety of institution types. Our unique research design - FIRST IV faculty and paired faculty for comparison from the same department - examines the outcomes of former FIRST IV participants within the context of their departments and institutions. Using data collected from 2016-2019 from both FIRST IV alumni and paired faculty in their departments, we are investigating the relative influences of experience, training and external factors on biology teaching practices.

**4/11/18** Beth Simon (Associate Teaching Professor, Education Studies, UC San Diego)

Title: Introduction to "Perusall" -an interactive reading tool.

Abstract: "Perusall" is associated with Eric Mazur and is designed to support reading technically-challenging STEM textbooks, but has broad application.

**4/24/18** Karen Gocsik (Analytical Writing Program, UC San Diego)

Title: What practices do novices implement as they compose new knowledge?

**Abstract:** This presentation will offer the results of a seven-year study designed to determine what research, critical thinking, writing, and collaborative processes students use when they encounter and try to make sense of knowledge that is new to them. To chart these practices, three researchers from Dartmouth College (including Dr. Gocsik) mined a long-standing assignment in which students in a developmental writing class were asked to collaboratively compose, using the Blackboard wiki function, a Wikipedia-style article on a topic with which they were entirely unfamiliar. Carefully coding students' individual contributions to the wiki, the researchers tracked student practices and discovered interesting patterns. These discoveries present interesting implications for teaching and learning.

**5/8/18** Melissa Famulari (Associate Teaching Professor, Economics, UC San Diego) and Leslie Verfaillie (UC San Diego Bookstore)

**Title:** What makes a class expensive and what can we do about it?

**Abstract:** Abstract: In this talk, we discuss rising textbook and other instructional costs and the federal legislation that has attempted to curb such costs. Using data from the UC San Diego Bookstore from 2002-today, we document trends in prices and sales on our campus overall and by department. We identify the factors influencing the student's cost of using a textbook and other course materials for a quarter. Finally, based on insights from Famulari's negotiations with publishers for low-cost custom textbooks in Economics for the past 12 years and Verfaillie's insights as the Course Materials Buyer at the Bookstore for the past 13 years, we discuss strategies to lower instructional costs.

**5/22/18** CAMSEE Annual Research and Innovations Round Table

This CAMSEE meeting will focus on the pedagogy research projects being conducted by CAMSEE members under the "Blanket IRB" this year. There are 10 projects from faculty in Biology, Computer Science, Economics, Education Studies and Physics. We hope you will join us to provide feedback and to get inspired by your CAMSEE colleagues! This year's speakers include Adam Burgasser, Melissa Famulari, Mia Minnes, Christine Alvarado, Katie Petrie and others.

## Special events and working groups

### **Workshop: Creating an Inclusive Classroom**

September 13-14, 2017

Location: Teaching + Learning Commons @ Geisel, room 1505

Workshop participants will produce a student-centered syllabus and expand their repertoire of teaching strategies that can be used to make our classrooms more inclusive for all students.

There will also be opportunities to meet colleagues from other academic disciplines and to learn about the campus community centers.

**IRB Working Group:** Christine Alvarado, Adam Burgasser, Gabriele Wienhausen, Ying Xiong  
Outcome: extension of campus-wide IRB with opt-out consent form

**CAMSEE Socials:** December 14, 2017 and June 14, 2018