Does How We Teach Matter? The evidence behind evidence-based teaching

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Abstract:
All of us are being told to change how we teach, but what is the evidence that these calls are based on? In this talk, I will first explore a single case study illustrating how collecting data guides teaching reform and then expand to describe a meta-analysis conducted on studies of teaching in hundreds of STEM classrooms. In both contexts, student-centered teaching methods increase student exam performance and decrease failure rates. I will close with a study exploring potential trade-offs between devoting time to learning about evidence-based teaching methods and research productivity for allies in the spread of evidence-based teaching practices: graduate students.

Bio:
Dr. Sarah L. Eddy is an Assistant Professor in the Department of Biology and the STEM Transformation Institute at Florida International University. Trained as a behavioral ecologist, Sarah has shifted from studying behavior in the field to behavior in college classrooms. Her research focuses on understanding how college instructors can contribute to the goal of equal participation of historically underrepresented groups in science careers, specifically documenting current disparities in student classroom experiences and working with instructors to deploy interventions to addressing these. In addition to scholarly publications, Sarah’s work has been featured in the New York Times, The Atlantic, Science, and Insight into Diversity.