

College of Liberal Arts and Sciences Fall 2022 Chemistry Seminar Series Friday, October 7th

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Integrating rehearsal training in a mixed-reality teaching simulator to support graduate teaching assistants in active learning environments

Abstract At large universities, Graduate Teaching Assistants (GTAs) are a critical part of undergraduate instruction. Investigating effective and innovative ways to prepare GTAs for the college level STEM instruction is an investment in student learning and a strategic way to broadly implement active learning. Simulated classroom environments are a powerful training enhancement because they can provide a low-risk rehearsal opportunity for GTAs to practice evidence-based teaching skills before trying them on actual students in their classroom. Over the past two years, we have used the simulator to coach GTAs in chemistry, physics, and mathematics on calling on students & responding to incorrect answers, asking questions, and facilitating groupwork. This presentation will include how the simulator modules are created and their measurable impacts on GTA instruction.

Biography Dr. Erin Saitta is an Assistant Professor in the Chemistry department at the University of Central Florida (UCF). Her research is focused on instructor beliefs and practices. She has over a decade of experience in faculty professional development and evidence-based curricular design where she specializes in inquiry-based instruction and collaborative action research. Her NSF funded projects have aimed to foster the use of evidence-based practices in university calculus courses and explore the use of a mixed- reality teaching simulator to influence graduate teaching assistants' discourse decisions in active learning environments. Her current works aim at creating more inclusive and equitable environments for chemistry teaching and learning. Her work has been published in reputable journals such as Science, the Journal of Chemical Education, and the Journal of Science Education & Technology. Dr. Saitta received her bachelor's degree in Science Education, Chemistry and her Ph.D. in Materials Chemistry where she investigated the degradation of polychlorinated biphenyls in painted metal and concrete. She was the Assistant Director of the UCF Faculty Center for Teaching and Learning before joining the UCF chemistry department in 2015.