I started using active-learning techniques as a lab instructor in graduate school to get my students to do the reading outside of class. After I got my Ph.D. in ecology from the University of Minnesota, I taught biology and computer science courses on U.S. military bases in Turkey, Bahrain, and Bosnia. One of my most memorable classes was a rat-dissection lab in a plywood building without running water (we brought clean water in buckets). I was formally introduced to active learning when I returned to the U.S. to teach an online course Earth-systems course for teachers. One of my post-docs was at the Science Education Resource Center developing teaching materials for geoscientists, including materials on game-based learning. I currently teach Earth Science for pre-service K-12 teachers and a course on climate change at Wright State University. I’m using Team-based Learning and Think-Pair-Share in both classes. I’m also an associate editor for the Journal of Geoscience Education.

SESSION NAME: Workshop V
PRESENTATION TITLE: The One-minute Paper and Other Interactive Tricks for a Large-group Class
The best techniques to allow instructors to meaningfully engage with large groups of students often involve asking what they understand. I’m going to review ways to make even a lecture class more interactive using informal assessment, structured student discussion, and problem-solving exercises. We’ll discuss challenges posed by class size, how to get student buy-in, and how to use technology (including index cards and whiteboards) to engage and assess almost all the students in the classroom.