

# 159-7: MIXED-REALITY SIMULATIONS TO DEVELOP CHAMPIONS FOR DIVERSITY IN GEOSCIENCES: CONCEPTUAL FRAMEWORKS AND THREE WAVES OF DATA

**Tuesday, 6 November 2018**

**10:10 AM - 10:25 AM**

*Indiana Convention Center - Room 234*

There is mounting evidence that the typical diversity training for university faculty members is largely ineffective at changing attitudes or behaviors (Bezrukova et al., 2012; Moss-Racusin et al., 2014). One possible reason for this is because there is low engagement in this type of training (Williams, 2013), and the training provided does not help participants take on specific behaviors to counteract biases or to push against institutional inertia (Bezrukova et al., 2012; Moss-Racusin et al., 2014). However, we know that enhanced diversity yields a competitive advantage through employment of more numerous perspectives during problem-solving (Medin and Lee, 2012). In contrast, the geosciences faculty remains mostly White and male, and less diverse than the general population (NCSES, 2015), and underperforms as a result.

The goal of our NSF-funded project is to provide professional development for a cohort of 30 geoscientists to (1) develop their knowledge of social justice issues in the geosciences; (2) engage in bystander intervention techniques; and (3) develop their leadership skills to target gatekeeping decisions to transform their home institutions. The following two goals guide our proposed presentation: First, we present social cognitive theory (Bandura, 1986) and social closure theory (O'Brien, 2010; Tomascovic-Devey, 2014; Vallas and Cummins, 2014) as the two conceptual frameworks that drove the design of our intervention. We also describe the critical elements of our workshop, which included an intensive 3-day workshop and three immersive, mixed-reality, simulations that provided participants with practice in deploying specific strategies in authentic situations that geoscience faculty members may find themselves in. On-going professional development also included monthly virtual meetings in which participants discuss readings that further their knowledge and skills regarding DEI, and application of these concepts to their home institutions. For our second goal, we present analyses on the first three waves of data regarding changes in our participants' self-efficacy for being able to confront prejudiced behaviors in their department, and collective efficacy in being able to change the institutional culture of their department.

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