GP-IMPACT: ICE-AGE:
Integrating Continuous Experiential Activities for Geoscience Education

Instructing teachers-in-training in experiential learning and culturally responsive teaching within the context of geoscience: Since geoscience is generally not a part of the high school science curriculum, geo-science must be taught within the context of non-geoscience STEM classes. PI Coleman-King will create classes for pre-service teachers that address the intersection between STEM/geoscience and culturally responsive educational practices. These classes will use geoscience concepts generally, and our lessons-in-a-box more specifically, to convey these teaching methods. By using the lessons in a box, graduating teacher candidates will enter classrooms with existing connections to geoscience faculty and specific knowledge on how to use geoscience to meet state education standards for non-geoscience STEM subjects. Once developed, these courses can continue to be taught as part of the regular teacher education curriculum.

Educational research: PI Coleman-King will collect qualitative data in the form of interviews, focus groups, and ethnographic notes to document students' level of engagement with geoscience material and their interests and perceived competency in engaging in geoscience activity. Coleman-King will synthesize these data in published papers and conference presentations.