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PEER* - Research Camp CGN: Conducting Research in Active and Inclusive Pedagogies

*Professional Development for Emerging Education Researchers

Leading Question: How to publish papers that facilitate change for educational settings?

Purpose: Careful attention to student learning serves both as a scholarship activity and a means for improving classroom practice and student learning. This research camp introduces participants to methods and practices for conducting research in active-learning and inclusive pedagogies. Methods range from quantitative surveys to qualitative video-data analysis. All aspects of a research project will be covered, including developing a research question, performing a literature review, data analysis software, writing as a mechanism for project development, and options for publishing. More broadly, this workshop fosters a research mindset, preparing participants to conduct their own research studies. While this mindset can result in publications and other traditional scholarly activities, it also facilitates formative evaluation of instructor practices and leads to improved classroom pedagogy and, ultimately, student learning.

Target audience: Workshop will be relevant to a broad range of participants, including:

- Pre-service teachers interested in learning how to rigorously assess and conduct action research on their teaching practice
- Current Education researchers interested in learning new methods (video data analysis, statistical analyses of big-data, etc.)
- STEM Educators interested in becoming active in discipline-based education research

Camp structure: All events will be interactive: During the workshops participants will develop a research project on their current educational setting or area of interest. We start with interactive activities on developing and refining research interests into research questions, move through collecting real data and analysis, and conclude with targeted, individualized recommendations for publishing participant work in peer-reviewed journals. A variety of data types will be available for participants to access in developing their research question, including video data of small- and large-group student discussions, conceptual survey data from multiple US institutions, and student artifacts from STEM classes such as worked problems and guided reflections. Participants can augment or supplant these data with their own data collected during the workshop.

The workshop leaders will introduce topics with short lectures, and then lead small-group work on activities that introduce methods and data. Participants will present their ongoing work multiple times to the group, in the process learning how research questions evolve and develop. The workshop includes team building activities on the weekend and guided individual and group work during the week.

