



Concept:

PEER* - Research Camp CGN:

Conducting Research in Active and Inclusive Pedagogies

*Professional Development for Emerging Education Researchers

Mission: *Empowering individuals of marginalized groups and facilitating change in 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 and empowers minorities and persons with discrimination experience to use 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. Based on the individual (educational) biographies and perceived daily obstacles (of marginalization), we'll discuss practical implications on how to overcome challenges in daily scientific practice and how to incorporate strategies to continuously work on the individual professional-development.

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

- Traditionally disadvantaged students (of teacher education),
- Education researchers and
- Educators (independent of academic grade)

interested in reducing the own researcher bias and learning new mixed-methods approaches.

Camp structure: Our first premise is to conduct the camp in a highly interactive and individualized way with regard to the participants' interests, needs and circumstances. Therefore, the participants will already be included in the planning process. Should physical attendance not be possible for whatever reason, we will provide video documentation and literature of the respective session(s); digital attendance and participation will also be possible. 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 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 institutions, and student artifacts from 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. Over the course of the whole course a special focus will be on the work-life balance and practical problems of marginalization in the scientific world.

Conducted by:

Florian Genz

ZuS - Science Labs
Scientific Staff
University of Cologne

Rainer Zimmermann

Department of Curative Education and Rehabilitation
Scientific Staff
University of Cologne

Dr. Celestine Caruso

ZuS - Language Labs
Scientific Staff
University of Cologne

Ass. Prof. Dr. Eleanor C. Sayre

Research Director, PhysPort
Associate Professor,
Kansas State University

Prof. Dr. Scott Franklin

Director, Center for Advancing STEM
Teaching, Learning & Evaluation
Rochester Institute of Technology