February 10, 2021
1:00 pm–3:30 pm ET

The AERA-ICPSR PEERS Data Hub will hold a free workshop on "Modern Meta-Analysis Research." The workshop is the first in a series of webinars offered through the PEERS Data Hub that will focus on research methods in STEM education research.

The series is a collaboration with the Institutes in Research Methods (IRM) funded by the National Science Foundation and directed to Building Capacity for STEM Education Research. Aimed at early- and mid-career researchers and scholars, the capacity-building webinar series features 11 IRM projects that promote research expertise in applications of computational, quantitative, qualitative, and evaluative research methods useful to STEM education researchers.

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Instructors
Terri Pigott, *Georgia State University*
Joshua Polanin, *American Institutes for Research*
Ryan Williams, *American Institutes for Research*

About the Workshop

In this workshop, instructors will introduce participants to basic principles of meta-analysis in the context of systematic reviews for STEM education. The instructors will provide a brief overview of the steps of a systematic review using examples from published STEM education meta-analyses. The workshop will focus on best practice methods for meta-analysis, the synthesis of results from quantitative studies. Instructors will introduce effect sizes typically used in STEM systematic reviews including the standardized mean difference and correlations. Participants will practice extracting information needed for effect sizes from STEM research studies. Instructors will use the R program, metafor, for computing effect sizes. Instructors will also introduce basic meta-analysis techniques for estimating the mean effect size from a set of studies and for exploring effect size heterogeneity across studies. Participants will use *met afor* to compute the mean effect size and its heterogeneity across a set of studies. The workshop will use small data sets derived from published STEM education meta-analyses to demonstrate the method.

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The workshop will broadcast live on Zoom.
ASL interpretation and captioning will be provided.

Register