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A Presentation in the TLPL and the Maryland Equity Project
Panel Discussion on Equity in STEM Education
University of Maryland
I specialize in the study of (i) science teacher learning with emphasis in socioscientific issues, exceptionality, and bridging formal and informal education and (ii) learners’ understanding of science.
Studies Reported in the Literature

Investigations in:

I. Science Teacher Education Across the Continuum

II. Learning in Science
   • Focus on Traditionally Underserved Learners
   • Focus on Climate Change Education
     (Theoretical Framework: learning progressions with a sociocultural perspective)
Research: Without Funding

Studies in science teacher preparation that focus on gender and exceptionality
Example Publications


Research: Supported by Funding

Major projects supported by the National Science:


“Preparing Future Elementary Teachers to Teach About Sustainability through Non-Formal Science Education and Climate Change Education”

Research Questions:
1) How did participants evolve in their understandings of climate change through participation in the professional development academy?
2) How did participants understand learning progressions as potentially informative for their science teaching practices related to climate change, particularly its regionally-relevant aspects?
Current Studies in MADE CLEAR

“Investigating Science Educators’ Conceptions of Climate Science and Learning Progressions in a Professional Development Academy on Climate Change Education”

Research Question:
In what ways can a sustainability-themed science methods course that models the teaching of climate change via a blended learning strategy contribute to teacher candidates’ thinking about sustainability and climate change education?
Post-Academy Participation

• Online professional learning community participation
• Saturday professional development sessions
• Submit final draft of lesson segment and a final reflection form

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