Community for Advancing Discovery Research in Education

2020 POSTDOC BIOGRAPHIES

Devarati Bhattacharya

University of Nebraska-Lincoln

Devarati Bhattacharya is a K-16 STEM education postdoctoral fellow in the School of Natural Resources at the University of Nebraska, where she works on the DRK-12 project, *High School Students' Climate Literacy Through Epistemology of Scientific Modeling (Collaborative Research: Forbes)*. Her work focuses on advancing climate literacy and education among K-16 students and teachers through STEM curriculum design and implementation, teacher education and professional development, and education research grounded in the disciplines of science and environmental education. Building on her doctoral research in science education at the University of Minnesota, where she examined secondary teachers' understanding about a complex natural phenomenon like global climate change, she studies the impact of model-based teaching and learning in developing secondary students understanding about the Earth's climate and global climate change. This work involves curriculum development and implementation and support of instruction that enables students' use of a data-driven, computer-based modeling tool to investigate Earth's climate and the phenomenon of global climate change.

Nominating PI: Cory Forbes

Leanne Elliott

University of Pittsburgh

Dr. Leanne Elliott is a postdoctoral research associate at the University of Pittsburgh within the Learning Research and Development Center and a member of the DRK-12 project, *Early Emergence of Socioeconomic Disparities in Mathematical Understanding*. She received her PhD in Developmental Psychology in 2019 from the University of Pittsburgh, where she studied the early emergence of academic achievement disparities using large federal datasets as well as small-scale quantitative and qualitative studies. In her current position, she works on two federally funded projects examining the role that parents play in the development of socioeconomic disparities in math skills among two- and four-year-old children. She is particularly interested in the ways that parents contribute to these processes, including unpacking how SES shapes parents' beliefs and practices as well as how parents overcome the challenges associated with socioeconomic disadvantage. More generally, the goals of her work are to develop strengths-based, parent-focused interventions to help parents promote math learning with their young children.

Nominating PI: Elizabeth Votruba-Drzal

Ruby Ellis

University of Missouri

Dr. Ruby Ellis is a postdoctoral research fellow in the Department of Learning, Teaching, and Curriculum at the University of Missouri, where she works on the DRK-12 project, *Examining Relationships Between Flipped Instruction and Students' Learning of Mathematics*. She received her PhD in Mathematics Education from Auburn University. She has a variety of teaching experiences, ranging from middle and high school mathematics to an adjunct instructor in the Department of Science and Mathematics at Talladega College and a graduate teaching and research assistant in the Department of Curriculum and Teaching at Auburn University. Her research examines professional development aimed at supporting mathematics teachers in schools with high African American, low-income student populations with integrating technology in alignment with inquiry-based instructional practices. In particular, she examines teacher attitudes, beliefs, and learning in relation to their participation in such professional learning experiences.

Nominating PI: Zandra de Araujo

Roberta Howard Hunter

Michigan State University

Dr. Roberta Howard Hunter is a postdoctoral research associate on the DRK-12 project, *Teaching Science Outdoors: A Next Generation Approach for Advancing Elementary Science Teaching in Urban Communities*. She holds a BS in Psychology from Rensselaer Polytechnic Institute and a MS in Environmental Education from Southern Oregon University. She completed her PhD in Education at Rutgers University, with a concentration in Learning Sciences. Her dissertation research was a mixed-methods study of educator environmental literacy with a focus on such literacy situated in social-ecological systems. Her current research uses a design-based approach to study the development of outdoor teaching practices in urban elementary school teachers. She is interested in how environmental literacy and identity shape educator practice, and the co-development of educator identity and practice in place-based, culturally relevant outdoor instruction that supports a critical environmental literacy.

Nominating PI: Gail Richmond

Amy Ricketts

University of Illinois at Chicago

Dr. Amy Ricketts is a postdoctoral research associate at the University of Illinois at Chicago, where she works on the DRK-12 project, *Professional Development for K-12 Science Teachers in Linguistically Diverse Classrooms*. She earned her PhD in 2017 at Penn State University, with a dual specialization in Science Education and Teacher Education. Prior to her doctoral studies, she served as a classroom teacher in Southern California public schools for thirteen years, in 1st grade, 5th grade, and 8th grade science. She aims to support science teacher learning across the career span through job-embedded professional development—namely designing, facilitating and researching school-based, collaborative professional learning communities that position teachers with agency and bring their attention to issues of equity. To this end, she uses the tools of ethnography and discourse analysis to closely examine group interaction in professional learning settings, as well understand the ways in which teachers take up and transform their learning community's valued practices in their classrooms, and how those practices support equitable student learning opportunities.

Nominating PI: Minjung Ryu