Community for Advancing Discovery Research in Education

2016–2017 CADRE FELLOWS BIOGRAPHIES

Kyle Cox

University of Cincinnati

Kyle Cox is a doctoral student in Educational Studies with a focus on quantitative research methodology at the University of Cincinnati. He is currently a graduate research assistant working with Dr. Ben Kelcey on the DR K-12 project "Multilevel Mediation Models to Study the Impact of Teacher Development on Student Achievement in Mathematics." His research interests include multilevel mediation, teacher quality, and mathematics education. Specifically, he is interested in improving research designs for multilevel mediation studies to provide strong evidence for causal arguments that are crucial but often lacking in educational research while going beyond 'what works' to assess the theories of action behind an educational intervention or program. Prior to pursuing graduate studies full-time, he earned a B.S. in Middle Childhood Education from Miami University, an M.A. in Educational Studies from the University of Cincinnati, and taught 6th grade mathematics in Mason, Ohio, for eight years.

Project: CAREER: Multilevel Mediation Models to Study the Impact of Teacher Development on Student Achievement in Mathematics

PI: Benjamin Kelcey

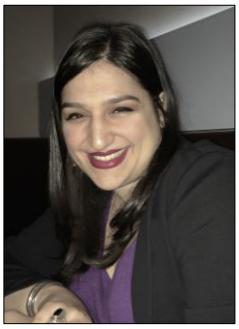
Kim Frumin

Harvard Graduate School of Education

Kim Frumin is a doctoral student at the Harvard Graduate School of Education, where she studies STEM-focused research-practice partnerships and online teacher learning. Previously, Kim was a founding member of the New York City Department of Education's Office of Innovation (iZone) and served as Senior Director of Professional Development and Practice for iZone360, the iZone's whole-school redesign effort. Before joining the NYCDOE, Kim managed educational content, research, and outreach, for international Sesame Street co-productions in Israel and Northern Ireland. Kim has served as a Fulbright Scholar in Israel, implementing an original photography and writing program with Bedouin youth. Kim is a co-editor of Teacher Learning in the Digital Age: Online Professional Development in STEM Education (Harvard Education Press, 2016).

Project: Supporting Large Scale Change in Science Education: Understanding Professional Development and Adoption Variation Related to the Revised Advanced Placement Curriculum (PD-RAP)

PI: Arthur Eisenkraft; **Co-PI:** Chris Dede



Dora Kastel

American Museum of Natural History

Dora Kastel is a leader of professional development (PD) programs at the American Museum of Natural History (AMNH), and is currently working on the DR K-12 project "Moving Next Generation Science Standards into Practice: A Middle School Ecology Unit and Teacher Professional Development Model." Goals of this project include the development of a model for NGSS curriculum PD, and the development of measures of teacher and student outcomes. Prior to her work at AMNH, she was a middle school science and math teacher and teacher leader for six years in East Harlem. She earned her B.A. in Geology from the University of Pennsylvania, and her M.A. in Science Education and Ed.M. in Mathematics Education from Teachers College at Columbia University. She recently returned to Teachers College, and is a first-year Ph.D. student in Science Education. Her research interests include the impact of PD facilitators' and leaders' practice, knowledge and beliefs on teacher learning and practice.

Project: Moving Next Generation Science Standards into Practice: A Middle School Ecology Unit and Teacher Professional Development Model

PI: Karen Hammerness; **Co-PI:** Suzanne Wilson

Gladys Krause

The University of Texas at Austin

Gladys Krause is a postdoctoral fellow at the University of Texas at Austin in STEM Education. Here she earned her Ph.D. in Mathematics Education. Her dissertation used data mining to compare socioeconomic and multicultural factors contributing to the different retention rates for Latino mathematics teachers versus other ethnicities. Currently, she investigates responsive teaching of rational numbers under the supervision of Drs. Susan Empson and Victoria Jacobs. Her research interests center on teacher knowledge and children's mathematical thinking and how these two areas intersect, particularly in classroom settings which involve multilingual and multicultural dynamics. She focuses on the study of fractions, how children learn them, and how beginning and experienced teachers interact with children to elicit children's understanding of fractions. She is currently working on creating a consistent and robust framework for conceptualizing teacher knowledge of children's mathematical thinking situated in the actual practice of teaching.

Project: Theorizing and Advancing Teachers' Responsive Decision Making in the Domain of Rational Numbers

PI: Susan Empson

Kelsey Lipsitz

University of Missouri

Kelsey Lipsitz is a third year doctoral student in Science Education at the University of Missouri, studying under the advisement of Dr. Deborah Hanuscin. She completed a B.S. in Elementary Education and a M.Ed. in Learning and Instruction, both from the University of Missouri, and taught fifth grade for three years before returning to graduate school. She currently works as a graduate research assistant on the DR K-12 project "Quality Elementary Science Teaching (QuEST)," which investigates a practicum-based professional development model designed for elementary teachers. As a result of her experiences as a fifth grade teacher and graduate research assistant on the QuEST project, her research interests are in examining elementary teachers' understanding of science and helping them bring more authentic science learning experiences into the

classroom so that students are better prepared to engage in science as they encounter it in their daily lives.
Project: QuEST: Quality Elementary Science Teaching
PI: Deborah Hanuscin

Lindsey Mann

University of Michigan

Lindsey Mann is a doctoral candidate in Mathematics Education at the University of Michigan School of Education. Lindsey's research focuses on the work of beginning mathematics teaching. She seeks to understand patterns in instruction that explain why math teaching done by novices is, on average, linked to negative outcomes for students and also for the teachers themselves. At the same time, she looks for strengths and opportunities in this instruction that could be better leveraged. Focusing on teaching practice, she aims to contextualize this work in the racialized and gendered discourses of mathematics classrooms and broader society. Currently, she works with Deborah Ball on the Study of Beginning Mathematics Teaching and a project focused on building intercommunity and interdisciplinary capacity to develop teachers' mathematical knowledge for teaching (MKT). She has taught middle school mathematics and elementary mathematics methods courses, facilitated workshops with mathematicians and others responsible for the mathematical education of teachers, and presented her research across the U.S. and internationally. She has a B.A. in Mathematics and an M.A.T. from the University of Chicago.
Project: Building Assessment Items and Instructional Tasks to Build Intercommunity Capacity to Develop Teachers' Mathematical Knowledge for Teaching
PI: Deborah Ball

Katie Schenkel

Michigan State University

Kathleen (Katie) Schenkel is a Ph.D. student in Curriculum, Instruction, and Teacher Education at Michigan State University. She investigates ways to support and position students to engage in productive science and engineering identity work in middle school. Additionally, she explores in what ways youth utilize their science and community expertise to define and address community concerns in ways that matter to them. Katie is pursuing these research interests as a member of the I-Engineering research team. Her research is influenced by her experience as a middle school science teacher, and as an elementary methods course instructor. Prior to beginning her doctoral program, Katie earned a B.S. in Science-Business and a M.Ed. at the University of Notre Dame. Her research stance positions youth as experts, and prioritizes an equity and asset-based approach to learning and communities.
Project: Tools for Teaching and Learning Engineering Practices: Pathways Towards Productive Identity Work in Engineering
PI: Angela Calabrese Barton

Tina Vo

University of Nebraska-Lincoln

Tina Vo is currently a doctoral candidate at the University of Nebraska-Lincoln's college of Education and Human Sciences, in the department of Teaching, Learning, and Teacher Education. She is a graduate research assistant working with Dr. Cory T. Forbes on the MoHSES project, which focuses on engaging elementary students and teachers in scientific modeling around hydrological processes. Before beginning her doctoral studies

Vo obtained her B.S. in Elementary Education from Illinois State University and a M.S. from the University of Iowa in Science Education with a research focus on technology. While working on her Ph.D. she has taught science methods courses and technology integration courses to preservice elementary teachers. Her dissertation research will explore how elementary preservice and inservice teachers understand and engage students in scientific modeling over time and grade levels. Other research interests include games and simulations tied to scientific modeling, technology integration to support science in elementary contexts, and professional developments supporting elementary teachers' engagement with science.
Project: Modeling Hydrologic Systems in Elementary Science (MoHSES)
PI: Cory Forbes

Megan Wongkamalasai

Vanderbilt University

Megan Wongkamalasai is a doctoral student and advisee of Richard Lehrer in the Department of Learning, Teaching, and Diversity at Vanderbilt University studying mathematics education. Prior to her doctoral studies, she completed a B.S. in Cognitive Studies, Child Studies, and Early Childhood Education at Vanderbilt University. While working on her bachelor's degree, she worked as an undergraduate research assistant on a project studying language development in young children and Lehrer's project on middle school students' development of statistical reasoning. After graduating, she taught kindergarten and second grade at a local elementary school serving primarily immigrant and refugee families. Since her return to Vanderbilt years ago, she has worked on the DKR-12 project, "Understanding Space through Engineering Design." This project is conducted in partnership with K-5 teachers in order to design mathematics instruction that informs the development of learning progressions around the science and mathematics of space. As part of the project, Megan is conducting an ongoing design study with a team of first grade teachers to investigate how children's 3D construction activities can be leveraged to co-develop students' conceptions of mathematical transformations (i.e. symmetries) and engagement in mathematical practices.
Project: Understanding Space Through Engineering Design
PI: Richard Lehrer

Robert Zisk

Rutgers University

Robert Zisk is a doctoral candidate in science education at the Rutgers University Graduation School of Education and is currently a research assistant on the DR K-12 project "Assessing, Validating and Developing Content Knowledge for the Teaching of Energy." His research focuses on science teachers' content knowledge for teaching (CKT), including how teachers enact such knowledge in practice as they design and select assignments and assessments for instruction. In his dissertation work, he developed an artifact protocol and related artifact quality to teacher knowledge, classroom observations and student learning. In addition to his research, he currently teaches a science methods course for pre-service elementary teachers, has taught courses for pre-service physics teachers, and works with in-service science teachers through professional development workshops. Prior to entering his doctoral program, he taught 8th grade physical science and received his B.A. in psychology and the Ed.M. in elementary education from Rutgers University.
Project: Assessing, Validating, and Developing Content Knowledge for Teaching Energy (Collaborative Research: Gitomer)
PI: Drew Gitomer