

New Faculty**Melissa Libertus**
libertus@pitt.edu

Melissa's research program focuses on the way numerical information is represented and processed in the mind and how it changes over the course of development. She is particularly interested in numerical operations, from quick estimations and comparisons that are thought to tap into our Approximate Number System (ANS) to exact measurement, arithmetic, and statistics that require years of learning and explicit instruction. She also investigates individual differences in math abilities, how they relate to other cognitive functions, and how we can improve people's math abilities.

Benjamin Rottman
rottman@pitt.edu

Research Scientist
Benjamin's primary research focus is causal learning - how people learn cause-effect relationships from their experiences. His second research focus is on medical decision making - how doctors make diagnosis, testing, and treatment decisions. He is particularly interested in how doctors (and patients) learn from their own experiences and apply that knowledge to future cases.

The History of LRDC: Part IV

From Part III: The Mellon and Ford funding of the late 1980s left their legacy in the continued research on mathematics instruction and policy that is carried on at the Center today.

In 2007, LRDC joined with the School of Education to create the Learning Policy Center and a new Ph.D. program: Learning Sciences and Policy. The idea that teaching needs to promote high standards of learning for all students was the centerpiece of the New Standards Project, which at one point connected 20 states that committed to new ways to assess to deeper knowledge in math, English, and science. And, in 1995, The Institute for Learning, began its work to translate research findings into actions that schools and districts can implement to promote high student achievement.

Technology has played a significant role in development, from early work on computer-based environments for the workplace to the development of intelligent tutoring systems. Recent years have seen the development of a web-based peer review system, tutors that can respond adaptively to both uncertain knowledge states and affective reactions that are revealed in student dialogues, and that can help students analyze the structure of arguments, including legal arguments presented before the Supreme Court.

Learning is more than cognitive processes – the social settings that affect motivation and engagement are important, too. LRDC faculty researched on children's help-seeking work and social aspects of desegregation, the social effects of computerized classrooms. Current work includes probing the dynamics of small group process and, the cognitive consequences of interactions between people with different viewpoints. Out-of school learning is also the focus of studies of learning in museums and community projects. Adding to LRDC corpus's research on the use of mobile devices, which go everywhere with the learner, and may support learning that occurs outside of school.

In recent years LRDC has forged into research that would have been difficult to predict 50 years ago - Cognitive neuroscience, the study of the brain, including the neural basis of learning, and reading, and the functional connections among brain areas have been the focus of LRDC's cognitive neuroscientists.



Note: View all LRDC 50th Anniversary Distinguished Speaker presentations at www.lrdc.pitt.edu/50th/speakerseries.asp

Upcoming Conferences

Nov 9- 13
[Society for Neuroscience](#)
San Diego, CA
[Event Website](#)

Nov 14- 17
[Psychonomic Society](#)
Toronto, ON
[Event Website](#)