

# Education Research Collaborative Projects

The Education Research Collaborative (ERC) is devoted to research on math and science learning and the research-based development of curricula, learning tools, and staff development models. Major areas of work include elementary mathematics; research on language, culture and science learning; adult numeracy; math learning out of school; and statistical reasoning and data analysis. ERC houses the Adult Numeracy Center, the Chêche Konnen Center, the Mixing in Math series of initiatives, and the Investigations Implementation and Workshops group.

The following list includes active ERC projects.

You may also access [past ERC projects](#).

- [Adults Reaching Algebra Readiness \(AR\)<sup>2</sup>](#) —

**Principal Investigator:** Donna Curry

**Funders:**

**Website:** <https://external-wiki.terc.edu/display/ANC/Our+Projects>

Adults Reaching Algebra Readiness, or (AR)<sup>2</sup>, is a new, research-based professional development series ... [More »](#)

- [Engineering Beyond the Double Bind: Women of Color in Engineering Education and Careers](#) —

**Principal Investigator:** Mia Ong

**Co-Principal Investigator:** Apriel Hodari

**Funders:** [The National Science Foundation](#)

This engineering education research project aims to significantly contribute to the existing knowledge base about factors that promote and hinder African American, Latina, Native American, and Asian American women in engineering ... [More »](#)

- [Expansive Meanings and Makings in ArtScience \(EMMAS\)](#) —

**Principal Investigator:** Ann S Rosebery and Beth Warren

**Funders:** [National Science Foundation](#)

**Website:** <http://chechekonnen.terc.edu/>

EMMAS offers an opportunity to investigate and demonstrate the untapped potential of an artscience approach to learning and teaching in high school for youth from communities historically underrepresented in science. It builds on an earlier project, *Educating the Imagination* (2011-2013), which developed a summer artscience studio program at Boston Arts Academy focused on wide-ranging explorations of water. [More »](#)

- [INK-12: Teaching and Learning Using Interactive Ink Inscriptions](#) —

**Principal Investigator:** Andee Rubin

**Funders:** [National Science Foundation](#)

**Website:** <http://ink-12.terc.edu/>

This project is investigating how the combination of pen-based computing and wireless communication can enhance current classroom practices and foster new practices that expand student learning in STEM disciplines. [More »](#)

- [Investigating STEM Literacies in Maker Spaces](#) —

**Principal Investigator:** [Eli Tucker-Raymond](#)

**Funder:** [The National Science Foundation](#)

**Website:** [stemlims.terc.edu](http://stemlims.terc.edu)

Many communities across the country are developing "maker spaces," environments that combine physical fabrication equipment, social communities of people working together, and educational activities for learning how to design and create works. [More »](#)

- [Investigations in Number, Data, and Space®](#) —

**Website:** <http://investigations.terc.edu/>

**Publisher:** [Pearson](#)



*Investigations in Number, Data, and Space* is a complete K-5 mathematics curriculum, developed at TERC in Cambridge, Massachusetts. [More »](#)

- [iSWOOP2: Interpreters and Scientists Working On-Site at Our Parks](#) —

**Principal Investigator:** [Martha Merson](#)  
**Co-PI:** Nickolay Hristov  
**Senior Scientist:** Louise Allen  
**Funder:** [National Science Foundation](#)  
**Website:** <http://iswoopparks.com>

National Parks are full of interesting and unusual STEM features which often intrigue visitors whose questions are answered by park personnel. The iSWOOP project is dedicated to making the scientific research underway at national parks more apparent to the public, especially visitors. ... [More »](#)

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- [Literacies in Engineering for Access and Participation Conference](#) —

**Principal Investigator:** [Eli Tucker-Raymond](#)  
**Funder:** [The National Science Foundation](#)  
**Website:** <https://leapconference.terc.edu>

Our conference goals are to bring together education scholars for the purpose of creating a research agenda at the intersection of equity, engineering, and literacy. [More »](#)

- [Make Connections: You and Me and Math](#) —

**Principal Investigator:** [Marlene Kliman](#)  
**Funder:** [The Heising-Simons Foundation](#)

YMCA of Silicon Valley and TERC are collaborating to prepare for, conduct, and support a national rollout of *Make Connections: You and Me and Math*, our full-year, English/Spanish adult-child math program for ages 0-5. [More »](#)

- [Researching the Value of Educator Actions for Learning \(REVEAL\)](#) —

**Principal Investigator:** [Andee Rubin](#)  
**Funders:** [the National Science Foundation](#)  
**Website:** [reveal.terc.edu](http://reveal.terc.edu)

Researching the Value of Educator Actions for Learning ([REVEAL](#)) was a three-year, National Science Foundation (NSF)-funded research study carried out by the Oregon Museum of Science and Industry (OMSI) ... [More »](#)

- [Storytelling Math](#) —

**Principal Investigator:** [Marlene Kliman](#)  
**Funders:** Heising-Simons Foundation

Storytelling Math is an interdisciplinary collaboration focused on identifying, creating, and promoting exemplary math-infused storybooks for young children in our diverse society. [More »](#)

- [Technology to Support Mathematical Argumentation](#) —

**Principal Investigator:** [Andee Rubin](#)  
**Funders:** [National Science Foundation](#)  
**Website:** <http://tma.mit.edu/>

In collaboration with MIT and leading mathematics educators studying early algebraic reasoning, TERC is designing and implementing a computational toolset with which elementary students can construct and share mathematical proofs in the service of learning to be competent algebraic reasoners. [More »](#)

- [Using Routines as an Instructional Tool for Developing Students' Conceptions of Proof](#) —

**Principal Investigator:** Susan Jo Russell  
**Funders:** [National Science Foundation](#)

This project is developing and investigating a teaching model to help 2nd through 5th grade teachers integrate the concept of proof into their mathematics instruction. [More »](#)

- [Zoo and Aquarium Research Collaborative \(ZAARC\)](#) —

**Principal Investigator:** [Andee Rubin](#)  
**Funders:** [National Science Foundation](#)

Based on prior research conducted as part of the Math in Zoos and Aquariums (MiZA) project, this three and one-half year research study is exploring a collaborative model for action research [More »](#)