

Our Projects

Creating engaging mathematics learning experiences has long been a focus of TERC's work. In 2000, TERC widened its reach to include adult math learners with a major grant from the National Science Foundation to fund the **EMPower** (Extending Mathematical Power) project. EMPower provided the springboard for a constellation of professional development and curricular materials development projects. In addition to multi-faceted research, curriculum, and professional development work supported by the National Science Foundation, we have worked with individual states, districts, and networks — customizing products and professional development to meet authentic needs.

Current Projects

SABES Mathematics and Adult Numeracy Curriculum & Instruction PD Center

In 2014, the Adult Numeracy Center at TERC was chosen to be the new SABES Mathematics and Adult Numeracy Curriculum & Instruction PD Center. The Center serves education practitioners and administrators in Massachusetts by offering math professional development on a variety of topics in both face to face and online formats. Our portfolio of offerings cover a range of topics including math content, teaching strategies, teaching math with ESOL and LD populations, research on adult numeracy learning, the College and Career Readiness Standards for Mathematics, and principles of "backwards design". **Funder:** Massachusetts Department of Elementary and Secondary Education **Website:** <https://www.sabes.org/pd-center/math-and-numeracy>.



Adults Reaching Algebra Readiness (AR)²

Adults Reaching Algebra Readiness, or (AR)², is a research-based professional development series building upon the content presented in the ANI (Adult Numeracy Instruction) professional development program. During the sessions, teachers build on their own conceptual understanding of algebraic topics while learning new ways to teach for understanding. Participants meet over the course of three 2 day face-to-face sessions and participate in support activities between each session. This PD series was designed to make direct connections to the Career and College Readiness Standards. For more details on session content and the pedagogy behind the training, please contact adultnumeracy@terc.edu.



EMPower™

The **EMPower program** is a series of 7 titles that fills the tremendous need for a math and numeracy program for adult basic education. EMPower helps adults develop mathematical proficiency to more effectively engage with the world, whether that be at work, at home as parents and caregivers, in the community, or as they seek high school credentials and further education. **Funder:** National Science Foundation, Grant No. ESI-9911410. **Website:** <http://empower.terc.edu>.

	<p>Our learners leave our program wondering WHY no one told them about how to do math this way...they really enjoy it and it has been proved to be effective.</p> <p><i>(Instructor, Cowley College Adult Education Program, Kansas)</i></p> <p>I am definitely more open to student input and explanations of solutions for word problems. I also have developed trust in the EMPower series because of the exercises I experienced in the ANI (Adult Numeracy Instruction) workshops. Another teacher and I have used the exercises with students preparing for the high school equivalency test and have observed that test scores went up on OPT (official GED practice test) tests administered after the exercises. We concluded that students had increased understanding of math concepts enough to improve scores.</p>
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EMPower™ Workshops

EMPower Professional Development Workshops are an opportunity for adult numeracy teachers interested in maximizing the quality of mathematics instruction for adults and out of school youth. EMPower workshops make math accessible to teachers at all levels of "math comfort"—from the skittish to the confident. Together, teachers expand their ideas of what it means to do math, focusing on reasoning, communication, and problem solving (in adult contexts) with a variety of approaches and strategies, not just rote memorization of procedures.

EMPower workshops are available for state- or program-based groups of 20 or more participants. TERC has previously delivered workshops for the Arizona Department of Education, Kentucky Adult Education, Kansas Board of Regents, Maine Department of Education, NYC Office of Adult and Continuing Education, the California Council for Adult Education, and others. Contact empower@terc.edu for more details.

Interpreters and Scientists Working On Our Parks (iSWOOP)

iSWOOP is a model program to build visitors' understanding of science at National Parks. This project is meant to advance STEM learning among national park visitors. iSWOOP brings together educators, scientists, and National Park Service (NPS) interpreters to incorporate site-based science into programs for the public. iSWOOP will support the NPS in fulfilling its educational vision by enhancing interpreter-visitor interactions in four ways, by providing interpreters with:



- Direct contact with scientists doing research in the park in an interactive format;
- Field-based experiences, increasing their awareness of scientific park-based research;
- Compelling visual data and graphs which can function as a jumping off point for STEM learning;

- Ongoing opportunities to reflect on and then improve their interactions with visitors, increasing their strategies for leveraging visitors' questions for active inquiry.

Funder: National Science Foundation. [Click to visit the iSWOOP website.](#)

Other Projects

Click each project title for details.

Adult Numeracy Instruction (ANI) Professional Development

MA ACLS Numeracy Study Circle

Learning Pathways Pilot

MoreThanOneMath

Statistics for Action (SfA)

TIAN (Teachers Investigating Adult Numeracy)