

Active Projects

Evaluating the *Developing Mathematical Ideas* (DMI) Professional Development Program

Funder: National Science Foundation

TERC Role: Evaluation Research

TERC Staff: [Jim Hammerman](#), [Lindsay Demers](#), [Melissa Leung](#), Sherry Soares, Traci Higgins, Joye Thaller, Jon Christiansen

Evaluating DMI is a large scale evaluation research project conducting a randomized control trial (RCT) to study the impact of the commercially published [Developing Mathematical Ideas \(DMI\) professional development curriculum](#) on teachers' knowledge, classroom teaching, and student learning. The project works with up to 195 elementary grades teachers in a number of Massachusetts school districts over the course of two years to provide DMI PD on number and operations concepts and to study its several impacts. The project will also develop a new measure of teachers' pedagogical content knowledge based on analyzing video clips of students small group work. [Click here for further information about the project.](#)

Exploring Computer Science (ECS) Curriculum Enhancement

Client: Rochester Institute of Technology (RIT)

Funder: National Science Foundation CE21

TERC Role: Evaluation Research

TERC Staff: [Karen Mutch-Jones](#), Debra Bernstein

RIT and TERC are adapting the established [ECS curriculum](#) to make it accessible to high school students with visual impairments. TERC's evaluation monitors student engagement and participation in an on-line community of visually impaired students, and changes in their computer science knowledge and skill compared with sighted students.

Geniverse

Client: Concord Consortium

Funder: National Science Foundation DRK12

TERC Role: Formative and Summative Evaluation

TERC Staff: [Karen Mutch-Jones](#), [Jim Hammerman](#)

[Geniverse](#) develops and studies the use of innovative, interactive computer-based materials in high school biology/genetics courses. TERC's evaluation describes teacher implementation, factors expected to mediate student outcomes, and provides formative feedback on PD, game materials, and research models.

High-Adventure Science

Client: Concord Consortium

Funder: National Science Foundation DRK12

TERC Role: Formative, Summative and Process Evaluation

TERC Staff: [Karen Mutch-Jones](#)

[High-Adventure Science](#) develops and researches the classroom impact of computer models and middle and high school curricular materials about Earth's systems and human-earth interactions. TERC's evaluation provides formative data on teacher implementation to refine curriculum, mapping tools, and professional development supports; supports staff in tracking progress; and will provide summative evaluation of how level and quality of teacher implementation to determine how it moderates student learning outcomes.

Implementing the Mathematical Practice Standards (IMPS)

Client: Education Development Center (EDC)

Funder: National Science Foundation DRK12

TERC Role: Formative and Summative Evaluation

TERC Staff: [Jim Hammerman](#), [Audrey Martinez-Gudapakkam](#), Jon Christiansen

[IMPS](#) is creating dialogs, classroom tasks, and other materials as well as professional development supports to help teachers understand and implement the Common Core Standards for Mathematical Practice. TERC evaluation coordinates expert review of materials, and evaluates impact of the teacher professional development and website distribution of the materials.

Indiana Science Initiative (ISI)

Client: I-STEM Resource Network

Funder: Lilly Foundation

TERC Role: Summative Evaluation

TERC Staff: [Karen Mutch-Jones](#)

The [Indiana Science Initiative](#) systemically reforms K-8 science education in Indiana through professional development to support scaffolded guided inquiry, while providing teachers with well-stocked, research-based science kits aligned with state standards. TERC's summative evaluation describes the ISI PD experience and how it influences kit use and teaching efficacy during the school year. Using a quasi-experimental design it compares student achievement gains on specific science tests as well as I-STEP science, literacy, and mathematics.

Levels of Conceptual Understanding in Statistics (LOCUS)

Client: U Florida, Gainesville; U Minnesota; Educational Testing Service (ETS); Kenyon College

Funder: National Science Foundation DRK12

TERC Role: Process Evaluator and Research Oversight

TERC Staff: [Jim Hammerman](#)

LOCUS uses evidence-centered design (ECD) techniques to develop a rigorous assessment of conceptual understanding of statistics for middle and high school students and their teachers. TERC evaluators support rigor in the development process and evaluate dissemination efforts.