

# Jim Hammerman

Co-Director of SEEC / Senior Researcher and Evaluator  
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## Program/Areas of Interest

K-12 math education and teacher professional development  
Evaluation and research methods and design  
Adult development, Data and statistics learning  
Technology for inquiry learning, Science education evaluation

## TERC Projects

- [Adopting Research-based Instructional Strategies for Enhancing STEM Education \(ARISE\)](#)
- [All Included in Mathematics – Expansion and Dissemination \(AIM-ED\)](#)
- [Assessing Changes in Chemical Thinking \(ACCT\)](#)
- [BioTeach](#)
- [CAREER: Research on Weather and Climate Impacts of Land Use and Land Cover \(LULC\) Change – Supporting Technology-Driven Science Inquiry as Pedagogy](#)
- [Climate Literacy Partnership in the Southeast \(CLIPSE\)](#)
- [Creating a Virtual Infrastructure for Engaging Rural Youth in STEM Disciplines](#)
- [EcoXPT: Learning about Ecosystems Science and Complex Causality through Experimentation in a Virtual World](#)
- [Evaluating the Developing Mathematical Ideas \(DMI\) Professional Development Program](#)
- [GrACE](#)
- [Implementing the Mathematical Practice Standards \(IMPS\)](#)
- [Innovators Developing Accessible Tools for Astronomy \(IDATA\)](#)
- [Levels of Conceptual Understanding in Statistics \(LOCUS\)](#)
- [Life on Earth](#)
- [The Milwaukee Master Teacher Partnership \(MMTP\)](#)



## Biographical Summary

Dr. James K. L. Hammerman's research and evaluation work builds on more than 30 years of experience in education, many spent as a teacher, teacher educator, and curriculum developer.

Since joining TERC in 2001, Jim has served as principal investigator, lead evaluator, or senior researcher on more than two dozen externally funded research and evaluation projects, focusing on pedagogical and institutional change, mathematics education, environmental education, and data and statistics education. He is principal investigator on an NSF-funded evaluation of a mathematics teacher professional development program. Jim currently leads external evaluations for several projects, including an immersive computer environment for conducting experiments to explore causality and ecology, a state-wide initiative to engage rural youth in computing through programming an online game, and an effort to improve pedagogy among university STEM faculty.

Jim has designed, implemented, and researched mathematics and science education curricula and professional development programs, as well as technology tools that support inquiry-oriented learning. He has taught students at levels ranging from kindergarten through graduate school, including methods courses for researchers. Jim is especially interested in adult developmental differences in professional development, data and statistics learning, online and software tools that support exploration, and supporting deeper learning and more reflective practice in professional communities.

In his free time, Jim enjoys biking, sailing, gardening, music, and travel. He is also part of a Buddhist meditation group that he helped found.

[Download Curriculum Vitae](#)

[For more information, seec.terc.edu.](http://seec.terc.edu)

## Selected Publications

- **After Installation: Ubiquitous Computing and High School Science in Three Experienced [...]** Brian Drayton, Joni Falk, Rena Stroud, Kathryn Hobbs, and James (Jim) Hammerman (2009) *Journal of Technology, Learning, and Assessment* 9 (3)
- **BioTeach Evaluation Report, 2008-2009** James (Jim) Hammerman and Karen Mutch-Jones (2009) Cambridge, MA: TERC.
- **Informal Inferential Reasoning About Large Scientific Data Sets** James (Jim) Hammerman (2009) Paper presented at the International Statistical Institute (ISI) Conference, Durban, South Africa.
- **Strategies for Managing Statistical Complexity with New Software Tools** James (Jim) Hammerman and Andee Rubin (2004) *Statistics Education Research Journal* 3 (2) . 17-41.
- **Understanding Data Through New Software Representations** James (Jim) Hammerman and Andee Rubin (2006) *Thinking and Reasoning with Data and Chance: 68th NCTM Yearbook* Reston, VA: National Council of Teachers of Mathematics