

# Projects

## Projects

SEEC has conducted — and is conducting — a wide variety of evaluation studies. This page describes some of those projects, and provides links to evaluation reports and other materials SEEC evaluators have produced. Please check back from time to time for updates; we are in the process of soliciting permission from current and former clients to post additional evaluation documents. Some documents require careful redacting to protect the confidentiality of research subjects.

### [All Included in Mathematics – Expansion and Dissemination \(AIM-ED\)](#)

**Clients and Collaborators:** North Carolina State University (NCSU), Horizon Research

**Project Staff:** [Jim Hammerman](#), [Michael Cassidy](#), Judy Storeygard

### [Assessing Changes in Chemical Thinking \(ACCT\)](#)

**Clients and Collaborators:** University of Massachusetts - Boston, Boston Public Schools, University of Arizona

**Project Staff:** [Jim Hammerman](#), [Eric Hochberg](#), [Audrey Martinez-Gudapakkam](#)

### [Assessment Practices of STEM Teachers](#)

**Clients and Collaborators:** University of Massachusetts - Boston, Boston Public Schools

**Project Staff:** [Jim Hammerman](#)

### [Backyard Wilderness](#)

**Clients and Collaborators:** Howard Hughes Medical Institute

**Project Staff:** [Eric Hochberg](#), [Karen Mutch-Jones](#), [Debra Bernstein](#), [Sabrina De Los Santos](#), [Santiago Gasca](#), [Rachel Hayes](#), Anushree Bopardikar, Sarah Hill, Martha Merson, Gilly Puttick

### [Building Coherence in STEM Learning Opportunities for Pre-Service Elementary School Teachers across Disciplinary Boundaries](#)

**Clients and Collaborators:** University of Utah

**Project Staff:** [Eric Hochberg](#)

### [CAREER: Research on Weather and Climate Impacts of Land Use and Land Cover \(LULC\) Change – Supporting Technology-Driven Science Inquiry as Pedagogy](#)

**Clients and Collaborators:** University of Alabama at Huntsville

**Project Staff:** [Jim Hammerman](#)

### [Creating a Virtual Infrastructure for Engaging Rural Youth in STEM Disciplines - Maine LearnToMod Project](#)

**Clients and Collaborators:** University of Maine - Orono, ThoughtSTEM

**Project Staff:** [Jim Hammerman](#), [Sabrina De Los Santos](#)

### [Creative Robotics](#)

**Clients and Collaborators:** Carnegie Mellon University, Marshall University, West Liberty University, Allegheny Valley School District, and Mingo County School District.

**Project Staff:** [Debra Bernstein](#), [Karen Mutch-Jones](#), [Michael Cassidy](#)

### [GeniGUIDE](#)

**Clients and Collaborators:** Concord Consortium, North Carolina State University

**Project Staff:** [Karen Mutch-Jones](#), [Santiago Gasca](#)

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### [Inclusive-Exploring Computer Science \(I-ECS\)](#)

**Clients and Collaborators:** Rochester Institute of Technology

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

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### [Innovators Developing Accessible Tools for Astronomy \(IDATA\)](#)

**Clients and Collaborators:** Associated Universities Inc. (AUI), Yerkes Observatory at the University of Chicago, University of North Carolina (UNC), University of Nevada Las Vegas (UNLV)

**Project Staff:** [Jim Hammerman](#), [Eric Hochberg](#), [Santiago Gasca](#)

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### [LabVenture - Revealing Systemic Impacts of a 12-Year Statewide Science Field Trip](#)

**Clients and Collaborators:** Gulf of Maine Research Institute (GMRI), Oregon State University Center for the Study of Lifelong STEM Learning

**Project Staff:** [Jim Hammerman](#), [Sabrina De Los Santos](#)

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### [Leveraging Citizen Science for Informal Science Learning \(U!Scientist\)](#)

**Clients and Collaborators:** Adler Planetarium, Northwestern University

**Project Staff:** [Jim Hammerman](#)

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### [The Milwaukee Master Teacher Partnership \(MMTP\)](#)

**Clients and Collaborators:** University of Wisconsin - Milwaukee

**Project Staff:** [Eric Hochberg](#), [Jim Hammerman](#)

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### [Adopting Research-based Instructional Strategies for Enhancing STEM Education \(ARISE\)](#)

**Clients and Collaborators:** University of Nebraska - Lincoln

**Funder:** National Science Foundation - WIDER (DUE1347814)

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### [BioTeach](#)

**Clients and Collaborators:** Massachusetts Biotechnology Education Foundation (MassBioEd)

**Funder:** US Department of Labor (Years 1-3); MassBioEd (Year 4)

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### [Climate Literacy Partnership in the Southeast \(CLiPSE\)](#)

**Clients and Collaborators:** Mississippi State University, University of Mississippi, University of Alabama – Huntsville

**Funder:** National Science Foundation - CCEP-I (DUE1043398)

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### [Data Games](#)

**Clients and Collaborators:** KCP Technologies and University of Massachusetts at Amherst

**Funder:** National Science Foundation - DRK12

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### [EcoXPT \(Learning about Ecosystems Science and Complex Causality through Experimentation in a Virtual World\)](#)

**Clients and Collaborators:** Harvard University

**Funder:** National Science Foundation - DRK12 (DRL1416781)

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### [Evaluating the Developing Mathematical Ideas \(DMI\) Professional Development Program](#)

**Clients and Collaborators:**

**Funder:** National Science Foundation - DRK12 (DRL1019769)

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### [Excellence in Estuaries Education](#)

**Clients and Collaborators:** The National Estuarine Research Reserve System (NERRS)  
**Funder:** National Oceanic and Atmospheric Administration (NOAA), US Department of Commerce via NERRS

### [Geniverse](#)

**Clients and Collaborators:** Concord Consortium, BSCS  
**Funder:** National Science Foundation - DRK12 (DRL0918642)

### [GrACE](#)

**Clients and Collaborators:** Northeastern University  
**Funder:** National Science Foundation - AISL (DRL1422750)

### [Helios STEM School Pilot \(HSSP\)](#)

**Clients and Collaborators:** Science Foundation Arizona  
**Funder:** Helios Foundation

### [High-Adventure Science \(HAS\)](#)

**Clients and Collaborators:** Concord Consortium  
**Funder:** National Science Foundation - DRK12 (DRL1220756)

### [Implementing the Mathematical Practice Standards \(IMPS\)](#)

**Clients and Collaborators:** Education Development Center  
**Funder:** National Science Foundation - DRK12 (DRL119163)

### [Indiana Science Initiative \(ISI\)](#)

**Clients and Collaborators:** Purdue/ I-STEM  
**Funder:** Lilly Foundation

### [JASON Learning NGSS Implementation in Rhode Island](#)

**Clients and Collaborators:** JASON Learning, West Warwick School District  
**Funder:** Rhode Island Foundation

### [Levels of Conceptual Understanding of Statistics \(LOCUS\)](#)

**Clients and Collaborators:** University of Florida - Gainesville, Educational Testing Service, University of Minnesota, Kenyon College  
**Funder:** National Science Foundation - DRK12 (DRL1118168)

### [Life on Earth](#)

**Clients and Collaborators:** Harvard University, University of Nebraska State Museum, Northwestern University, University of Michigan, Harvard Museum of Natural History, California Academy of Sciences, Field Museum of Natural History  
**Funder:** National Science Foundation - AISL (DRL1010889)

### [Sounds of the Ocean](#)

**Clients and Collaborators:** JASON Learning, Office of Naval Research  
**Funder:** Office of Naval Research

### [Transition to Algebra](#)

**Clients and Collaborators:** Education Development Center (EDC)  
**Funder:** National Science Foundation - DRK12

### [Vanished Curated Game](#)

**Clients and Collaborators:** MIT Education Arcade, Smithsonian Institutions  
**Funder:** National Science Foundation - ISE

### [Reports](#)

[Adopting Research-based Instructional Strategies for Enhancing STEM Education \(ARISE\)](#)

- [ARISE Baseline Evaluation Report](#)
- [ARISE End-of-Project Evaluation Report](#)

### [BioTeach](#)

- BioTeach Year 1 Evaluation Report
- BioTeach Year 2 Evaluation Report
- BioTeach Year 3 Evaluation Report
- BioTeach Year 4 Evaluation Report

#### Excellence in Estuaries Education

- Executive Summary
- Full Report
- Technical Appendices

#### Geniverse

- Geniverse Summative Evaluation Findings
- Supporting Teacher Implementation with Geniversity: Final Year Evaluation Findings

#### Helios STEM School Pilot (HSSP)

- HSSP Final Report

#### Indiana Science Initiative (ISI)

- Impact of ISI on Students' Science Knowledge - Acuity
- ISI Sustainability Study

#### Life on Earth

- Final Evaluation Report
- Executive Summary

#### Levels of Conceptual Understanding of Statistics (LOCUS)

- LOCUS Evaluation Final Report

#### Publications

**Mutch-Jones K, Gasca S,** Pallant A, Lee H-S. (2018) Teaching with interactive computer-based simulation models: Instructional dilemmas and opportunities in the High-Adventure Science project. *School Science and Mathematics*. <https://doi.org/10.1111/ssm.12278>

Wilson, C.D., Reichsman, F., **Mutch-Jones, K.** et al. (2018). Teacher Implementation and the Impact of Game-Based Science Curriculum Materials. *Journal of Science Education and Technology*. <https://doi.org/10.1007/s10956-017-9724-y>

Lyndon, M.P., **Cassidy, M.P.**, Celi, L.A., Hendrik, L., Kim, Y.J., Gomez, N., Baum, N., Bulgarelli, L., Paik, K.E., & Dagan, A. (2018) Hacking Hackathons: Preparing the next generation for the multidisciplinary world of healthcare technology. *International Journal of Medical Informatics*, 112, 1-5. <https://doi.org/10.1016/j.ijmedinf.2017.12.020>

**Martínez-Gudapakkam, A., Mutch-Jones, K.,** & Hicks, J. (2017) Formative Assessment Practices to Support Students who Struggle in Science. *Science and Children*, NSTA

Block, Florian; **Hammerman, James;** Horn, Michael; Spiegel, Amy; **Christiansen, Jonathan;** Phillips, Brenda; Diamond, Judy; Evans, Margaret; Shen, Chia. (2015) "Fluid Grouping: Quantifying Group Engagement around Interactive Tabletop Exhibits in the Wild." *ACM annual conference on Human Factors in Computing Systems (CHI'15)*. doi:10.1145/2702123.2702231

McNeal, K. S., **Hammerman, J. K. L., Christiansen, J. A.,** & Carroll, F. J. (2014). Climate Change Education in the Southeastern U.S. Through Public Dialogue: Not Just Preaching to the Choir. *Journal of Geoscience Education*, 62, 631-644. doi:10.5408/13-061.1