Research Library

This library contains articles and publications authored by TERC staff. You can also browse by author.

Browse Our Library

[A-D] [E-H] [I-L] [M-P] [Q-Z]

A-D

- A Conversation Between Researchers and Practitioners: ALM-7
- Adam: My Mouth Is Full of Words
- Addressing Climate Change Through Education
- A Framework for Adult Numeracy Standards
- After Installation: Ubiquitous Computing and High School Science in Three Experienced
- Agency of Women of Color in STEM: Individual and Institutional Strategies for Persistence and Success
- Algebra and the Elementary Classroom: Transforming Thinking, Transforming Practice
- Algebraic Reasoning in Prekindergarten–Grade 2
- Algebraic Reasoning in Kindergarten – Grade 2
- Algebraic Reasoning in the Elementary Classroom: Results of a Professional Development Program for Teachers
- Algebra in the Early Grades
- Aligning Classroom-Based Assessment With High Stakes Tests
- Appropriating Scientific Discourse: Findings from Language Minority Classrooms
- Ask an Author: How Can I Help Special Needs Students Feel Included in Class Discussions
- Ask an Author: Inclusive Math Communities
- Ask an Author: Students with Special Needs
- A Study of the Literature of Lab-Based Instruction in Biology
- Bilingual in Two Senses
- BioTeach—A Program of The Massachusetts Biotechnology Education Foundation: Evaluation Report, Year Three
- Boats, Balloons and Classroom video: Science Teaching as Inquiry
- Body Projects of Young Women of Color in Physics: Intersections of Gender, Race, and Science
- Breaking Barriers
- Breast Cancer and the Environment
- Bridges to Classroom Mathematics: Videotape Package
- Broadening Participation in America's STEM Workforce, CEOSE 2007-2008 Biennial Report to Congress
- Building Bridges: Teachers Leveraging Game-Based Implicit Science Learning in Physics Classrooms
- Building on Foundations for Success: Guidelines for Improving Adult Mathematics Instruction
- Building Systems from Scratch: an Exploratory Study of Students Learning About Climate Change
- But Why Does It Work?
- Can Teachers Learn Through Inquiry Online
- Career-Life Balance for Women of Color: Experiences in Science and Engineering Academia
- Challenging Cultural Stereotypes of Scientific Ability
- Challenging Games Help Students Learn: An Empirical Study on Engagement, Flow and Immersion in Game-based Learning
- Classroom Diversity: Connecting Curriculum to Students’ Lives
- Counterspaces for Women of Color in STEM Higher Education: Marginal and Central Spaces for Persistence and Success
- Count Me In! K-5: Including Learners With Special Needs in Mathematics Classrooms
- Creating and Sustaining Online Professional Learning Communities
- Cultivating a Culture of Inquiry
- Developing Essential Understanding of Algebraic Thinking for Teaching Mathematics in Grades 3-5 Essential Understanding Series
- Developing Interpretive Power in Science Teaching
- Development and Validation of the Light and Spectroscopy Concept Inventory
- Digital Curriculum in the Classroom: Authority, Control, and Teacher Role
- Digital Design of Smart Images: A Design Story
- Dimensions That Shape Teacher-Scientist Collaborations for Teacher Enhancement
- Discourse Analysis of Comments on a Climate Change Op-Ed, Part 1
- Discourse Analysis of Comments on a Climate Change Op-Ed, Part 2
- Discourse Analysis of Web Texts: Initial Results from a Telementoring Project for Middle School Girl
- Discourse and Social Practice: Learning Science in Language Minority Classrooms

E-H

- A Girl Scout Program Focused on Energy Conservation
- Book Review: Green Equilibrium
- Earth Science by Design Handbook for Professional Developers
- Editorial: An Important Review of Plant Reintroductions
- Electronic Learning Environments That Foster Math and Science Professional Development: Design, Facilitation, and Evaluation
- Electronic Quills: A Situated Evaluation of Writing with Computers in Classrooms
- EMPower Mathematics
- Enabling Courage: Agentic Strategies of Women of Color in Computing
- Enacting Agency: The Strategies of Women of Color in Computing
- Enhancing Use of Learning Sciences Research in Planning for and Supporting Educational Change: Leveraging and Building Social Networks
- Environmental Attitudes in Youth-created Computer Games about Climate Change
- Equity in the Future Tense: Redefining Relationships among Teachers, Students, and Science in Linguistic Minority Classrooms
• Everyday Matters in Science and Mathematics Studies of Complex Classroom Events
• Experimental Extinctions of Garlic Mustard (Alliaria petiolata) Populations: Implications for Weed Science and Conservation Biology
• Extant Text References for Narratives of the Double Bind
• Faith from the Fringes: Religious Minorities in School
• First Results from the Light and Spectroscopy Concept Inventory
• Fluid Grouping: Quantifying Group Engagement around Interactive Tabletop Exhibits in the Wild
• Focus on Education: Visiting the Radio Universe
• From Knowledge to Knowing: An Inquiry into Teacher Learning in Science
• Game Design to Learn about Climate Change: Middle School Girls' Experiences with Systems Thinking
• Ghosts in the Machine: Women’s Voices in Research with Technology
• Experimental and quasi-experimental designs in visitor studies

I-L

• Implementing the Massachusetts Adult Basic Education Math Standards: Our Research Stories
• Including All Students in Meaningful Mathematics: The Story of Darrell
• Inclusive Museums
• Increasing Access to Technical Science Vocabulary Through Use of Universally Designed Signing Dictionaries.
• Informal Inferential Reasoning About Large Scientific Data Sets
• Infusing Web-based Digital Resources into the Middle School Science Classroom: Strategies and Challenges
• Innovate to Mitigate: Science Learning in an Open-innovation Challenge for High School Students
• Inside the Double Bind: A Synthesis of Empirical Research on Undergraduate and Graduate Women of Color in Science, Technology, Engineering and Mathematics
• Integrating Arithmetic and Algebra
• Interactive Whiteboard Use in High-Tech Science Classrooms: Patterns of Integration
• It’s Not as Bad as Using the Toaster All the Time—Trade Offs in a Scratch Game About Energy Use
• It’s Elementary: What’s the Weather?
• Just Say Yes to Early Algebra!
• Karen in Motion: The Role of Physical Enactment in Developing an Understanding of Distance, Time and Speed.
• Learning About Statistical Inference
• Learning and Behavior Change in a Girl Scout Program Focused on Energy Conservation: Saving Energy to ‘Save The Planet’
• Learning as a Cultural Process: Achieving Equity Through Diversity
• Learning in a Team of High School Students Addressing a Climate Mitigation Challenge
• Learning Progressions as Tool for Curriculum Development: Lessons from the Inquiry Project
• Learning Science Online: A Descriptive Study of Online Science Courses for Teachers
• Learning Science Online: What Matters for Science Teachers?
• Lessons Learned and Implications for Practice from the English Learners and Science Tests Project: A Guide for Teachers
• Lesson Study for Accessible Science: Building Expertise to Improve Practice in Inclusive Science Classrooms
• Literacy In a Science Context
• Literacy Practices of Experienced Makers: Tools for Understanding Landscapes of Possibilities

M-P

• Making Computers Work for Students with Special Needs
• Making It Social: Considering the Purpose of Literacies to Support Participation in Making and Engineering
• Making Sense of Children’s Performance on Achievement Tests: The Case of the 5th Grade Science MCAS
• Many Futures: Mentoring Middle School Girls
• Math is Healthy
• Math Momentum in Science Centers
• Math that Matters
• Measure Lines
• Measurement in Adult Education: Starting with Students’ Understandings
• Measuring Adult Developmental Differences Using a Survey Instrument
• Measuring Implicit Science Learning Using Networks of Player-Game Interactions
• Methodological Note: On Using Personal Digital Assistants (PDAs) for Survey Administration
• Methodologies for Understanding Social Creativity During Collaborative Design Activities: A Proposal
• Models of Intervention: Reweaving the Tapestry
• MSPnet: Design Dimensions for Nested Learning Communities
• Muscles, Lungs, Blood and Guts
• My Kids Can: Making Math Accessible to All Learners, K-5
• Narratives of the Double Bind: Intersectionality in Life Stories of Women of Color in Physics, Astrophysics and Astronomy
• New Ways to Measure Adult Developmental Differences Among Teachers
• Numeracy Conceptual Framework for the International Adult Literacy and Lifeskills (ALL) Survey
• Online Professional Development: Science Inquiry in the Online Environment
• Opting in and Creating Demand: Why Young People Choose to Teach Mathematics to Each Other
• Plant Species Lost in an Isolated Conservation Area in Metropolitan Boston from 1894 to 1993
• Playing Math Science: Using Electronic Games to Foster Inquiry
• Practice-Based Inquiry in Science: A Professional Development Course in Science for K-5 Teachers in Urban Districts
• Predicting Influence in an Online Community of Creators
• Preparing Teachers to Teach for Deep Understanding; A Curriculum-Based Approach
• Professional Learning with Web-Based Videos: The Talk Science Experience
• Program Evaluation Report for Year 2 Of the BioTeach Program of the MassBioEd Foundation
• Project LITE Educational Materials and Their Effectiveness

Q-Z
"The Coat Traps All Your Body Heat": Heterogeneity as Fundamental to Learning
"This Question Is Just Too, Too Easy!!" Perspectives from the Classroom on Accountability in Science
Rater Background as a Source of Measurement Error in the Testing of English Language Learners
Reflections on Video: One Teacher's Story
Relearning to Teach Arithmetic (Teacher's Study Guide/Videotapes)
Reply to Angelo: Declines in species in Thorensen Conifer woods
Research Basis and Validation: EnViSci Network, Technology-Enhanced
Researching the Impact of Online Professional Development for Teachers
Rethinking Diversity in Learning Science: The Logic of Everyday Sense-Making
REVEALing Findings from the Field: Experiences Developing and Implementing a Staff Facilitation Model at Two Science Centers
Review of Three Elementary School Science Curricula and their Relationships to Two Focal Massachusetts State Standards
Revisiting Subtraction
Sampling and Retention of Underrepresented Groups
Scaffolding Inquiry for At-Risk Science Learners
Science Learning and Teaching: A Case of Online Professional Learning
Seeding Social Norms About Energy Conservation Among Girl Scouts
Seeking out Math in Making Experiences
Semiotic Structure and Meaning Making: The Performance of English Language Learners on Mathematics Tests
Serious Games Analytics to Measure Implicit Science Learning
Signing High School Science
Signing Math & Science Dictionary Apps for Inclusion of Deaf and Hard of Hearing Visitors in Science Museum Exhibit Activities
Signing Math and Science
Signing Science! Andy And Tonya Are Just Like Me! They Wear Hearing Aids And Know My Language!? 
Smart Moves: Making Sense of the Math in Environmental Data
Social Identities, Moral Narratives, Scientific Argumentation: Science Talk in a Bilingual Classroom
Sowing the Seed of Diversity
State Testing and Inquiry-Based Science: Are They Complementary or Competing Reforms
Statistics Education on the Sly
Strategies for Managing Statistical Complexity with New Software Tools
Structuring a Virtual Conference to Facilitate Collaboration and Reflective Dialogue
Success Rates for Reintroductions of Eight Perennial Species after Fifteen Years
Supporting Science Access for All Students: Using Content Enhancements to Create Pathways to the Big Ideas
Supporting Students with Learning Disabilities in High School Science
Tablet-Based Technology to Support Students’ Understanding of Division
Talking Mathematics: Supporting Children’s Voices
Teacher knowing: Reflections on a student-teacher dialogue and implications for professional development
Teacher Professional Development as Situated Sense-Making: A Case Study in Science Education
Teaching and Learning Proof Across the Grades: A K-16 Perspective
Teaching for Understanding in Earth Science: Comparing Impacts on Planning and Instruction
Teaching Mathematics Vocabulary with an Interactive Signing Math Dictionary
Teaching Other People’s Children: Literacy and Learning in a Bilingual Classroom
Teaching Science to English Language Learners: Building on Students’ Strengths
Teaching Strategies Affecting the Implementation of an Inquiry-Based Science Curriculum with ELLs
TEECH Lessons Learned: Strategies for Facilitating Communication in Teacher Enhancement
Tell-tale Signs of the Inquiry-Oriented Classroom
Testing the Courage of Their Convictions: Muslim Youth Respond to Stereotyping, Hostility, and Discrimination
The Answer is Still the Same...It Doesn't Matter How You Got It!
The Blue Mars Science Center
The Components of Numeracy
The Computer Clubhouse Village: An Intranet For Sharing and Connecting
The EMPower Project: Connecting Curriculum Development and Research
The Fun Thing About Studying Different Beliefs is That They are Different
The Generative Potential of Students’ Everyday Knowledge in Learning Science
The Impact of a Professional Development Model on ABE Teachers’ Instructional Practice: Teachers Investigating Adult Numeracy
The Inclusion of Numeracy in Adult Basic Education
The Mini-Symposium on Women of Color in Science, Technology, Engineering, and Mathematics (STEM)
The Need for a Light and Spectroscopy Inventory for Assessing Innovations
The Role of Representations in Shaping a Community of Scientific Inquiry Online
The Status of Women of Color in Computer Science
The Test of Time: Ubiquitous Computing Visions and Realities in 7 Pioneering Schools
The Universal eBook: Assistive Technology Meets 21st Century Book Publishing
The Use of Argumentation in Haitian Creole Science Classrooms
Transparency of Water: A workshop on math, water, and justice
Turning Teachers into Designers
Two Ways of Thinking about Division
Understanding Data Through New Software Representations
Understanding the Dearth of Women in Science
Using Diversity as a Strength in the Science Classroom: The Benefits of Science Talk
Using Students’ Representations and Explanations for Assessment within a Learning Progression
What, where, who? Learning in an Innovate to Mitigate pilot team
What Counts as Teacher Research? Continuing the Conversation
What Don't We Know? Message about Science
What Do The Ecologists Get From An Innovative Mentoring Program With High School Teachers?
What’s the Problem? One Key to More Productive Classroom Inquiry
Who Knows Whom in a Virtual Learning Network?: Applying Social Network Analysis to Communities of Learners at the Computer Clubhouse
Women of Color in Computer Science: A Summary of Empirical Literature Findings from Inside the Double Bind
Work-Based Curriculum to Broaden Learners’ Participation in Science: Insights for Designers