Journals of Interest - Mathematics and Science Education

February 2018

TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Journal</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Researcher</td>
<td>2</td>
</tr>
<tr>
<td><strong>Volume 47, Issue 1</strong></td>
<td>2</td>
</tr>
<tr>
<td><strong>Volume 47, Issue 2</strong></td>
<td>2</td>
</tr>
<tr>
<td>Educational Studies in Mathematics</td>
<td>3</td>
</tr>
<tr>
<td><strong>Volume 97, Issue 2</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Volume 97, Issue 3</strong></td>
<td>3</td>
</tr>
<tr>
<td>Journal of Research in Science Teaching</td>
<td>4</td>
</tr>
<tr>
<td><strong>Volume 55, Issue 2</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Volume 55, Issue 3</strong></td>
<td>4</td>
</tr>
<tr>
<td><strong>Volume 55, Issue 4</strong></td>
<td>5</td>
</tr>
<tr>
<td>International Journal of Science Education</td>
<td>6</td>
</tr>
<tr>
<td><strong>Volume 40, Issue 3</strong></td>
<td>6</td>
</tr>
<tr>
<td><strong>Volume 40, Issue 4</strong></td>
<td>6</td>
</tr>
<tr>
<td>Science Education</td>
<td>8</td>
</tr>
<tr>
<td><strong>Volume 102, Issue 2</strong></td>
<td>8</td>
</tr>
<tr>
<td>Journal of College Science Teaching</td>
<td>9</td>
</tr>
<tr>
<td><strong>Volume 47, No. 4</strong></td>
<td>9</td>
</tr>
<tr>
<td>International Journal of Mathematical Education in Science and Technology</td>
<td>11</td>
</tr>
<tr>
<td><strong>Volume 49, Issue 3</strong></td>
<td>11</td>
</tr>
<tr>
<td>Journal of Mathematical Behavior</td>
<td>12</td>
</tr>
<tr>
<td><strong>Volume 49</strong></td>
<td>12</td>
</tr>
<tr>
<td>Journal for Research in Mathematics Education</td>
<td>14</td>
</tr>
<tr>
<td><strong>Volume 49, No. 2</strong></td>
<td>14</td>
</tr>
<tr>
<td>Journal of Mathematics Teacher Education</td>
<td>15</td>
</tr>
<tr>
<td><strong>Volume 21, Issue 1</strong></td>
<td>15</td>
</tr>
<tr>
<td><strong>Volume 21, Issue 2</strong></td>
<td>15</td>
</tr>
<tr>
<td>Mathematics Teacher Educator</td>
<td>16</td>
</tr>
<tr>
<td><strong>Volume 6, No. 2</strong></td>
<td>16</td>
</tr>
<tr>
<td>Educational Psychologist</td>
<td>17</td>
</tr>
<tr>
<td><strong>Volume 53, Issue 1</strong></td>
<td>17</td>
</tr>
<tr>
<td>Educational Psychology Review</td>
<td>18</td>
</tr>
<tr>
<td><strong>Volume 30, Issue 1</strong></td>
<td>18</td>
</tr>
</tbody>
</table>
Educational Researcher

Volume 47, Issue 1

Did States Use Implementation Discretion to Reduce the Stringency of NCLB? Evidence From a Database of State Regulations
Vivian C. Wong, Coady Wing, David Martin, Anandita Krishmamachari.

Converging on Choice: The Interstate Flow of Foundation Dollars to Charter School Organizations
Joseph J. Ferrare, R. Renee Setari.

American Educators’ Confrontation With Fascism
Thomas Fallace.

Thinking Critically in Space: Toward a Mixed-Methods Geospatial Approach to Education Policy Analysis
Ee-Seul Yoon, Christopher Lubienski.

Rethinking Teacher Turnover: Longitudinal Measures of Instability in Schools
Jennifer Jellison Holme, Huriya Jabbar, Emily Germain, John Dinning.

Sex Differences in Doctoral Student Publication Rates
Sarah Theule Lubienski, Emily K. Miller, Evthokia Stephanie Saclarides.

Volume 47, Issue 2

2016 AERA Presidential Address: Public Scholarship: Education Research for a Diverse Democracy
Jeannie Oakes.

Who Feels Included in School? Examining Feelings of Inclusion Among Students With Disabilities
Leanna Stiefel, Menbere Shiferaw, Amy Ellen Schwartz, Michael Gottfried.

Going Without: An Exploration of Food and Housing Insecurity Among Undergraduates
Katharine M. Broton, Sara Goldrick-Rab.

Spaces, Places, and Policies: Contextualizing Student Homelessness
Alexandra E. Pavlakis.

Experiences With “Acute” Food Insecurity Among College Students
Educational Studies in Mathematics

Volume 97, Issue 2

Developing mathematical fluency: comparing exercises and rich tasks
Colin Foster.

Order of operations: On convention and met-before acronyms
Rina Zazkis, Annette Rouleau.

The role of perceptual similarity, context, and situation when selecting attributes: considerations made by 5-6-year olds in data modeling environments
Aisling Leavy, Mairead Hourigan.

The influence of theoretical mathematical foundations on teaching and learning: a case study of whole numbers in elementary school
Christine Chambris.

Bharath Sriraman.

Volume 97, Issue 3

Prototype images in mathematical education: the case of graphical representation of the definite integral
Steven R. Jones.

Exploring intrinsic and extrinsic motivational aspects of middle school students’ aspirations for their mathematics learning
Karina J. Wilkie, Peter Sullivan.

Comparison of students’ understanding of functions in classes following English and Israeli national curricula
Anne Watson, Michal Ayalon, Stephen Lerman.

Professional development of mathematics teachers toward the facilitation of small-group collaboration
Michal Tabach, Baruch B. Schwarz.

A link between students’ discernment of variation in unidirectional change and their use of quantitative variational reasoning
Heather Lynn Johnson, Evan McClintock.
Gender, complexity, and science for all: Systemizing and its impact on motivation to learn science for different science subjects
Albert Zeyer.

Development and validation of an instrument to assess student attitudes toward science across grades 5 through 10
Ryan Summers, Fouad Abd-El-Khalick.

Counterspaces for women of color in STEM higher education: Marginal and central spaces for persistence and success
Maria Ong, Janet M. Smith, Lily T. Ko.

Forms of science capital mobilized in adolescents’ engineering projects
Amy Wilson-Lopez, Christina Sias, Allen Smithee, Indhira Maria Hasbún.

Supporting girls’ and boys’ engagement in math and science learning: A mixed methods study
Jennifer A. Fredricks, Tara Hofkens, Ming-Te Wang, Elizabeth Mortenson, Paul Scott.

Validity evidence for a learning progression of scientific explanation
Jian-Xin Yao, Yu-Ying Guo.

Young children’s near and far transfer of the basic theory of natural selection: An analogical storybook transformation
Natalie Emmons, Kristin Lees, Deborah Keleman.

“We do not know what is the real story anymore.” Curricular contextualization principles that support indigenous students in understanding natural selection
Ingrid Sánchez Tapia, Joseph Krajcik, Brian Reiser.

Assessing students’ disciplinary and interdisciplinary understanding of global carbon cycling
Uncovering young children’s motivational beliefs about learning science
Elisa Oppermann, Martin Brunner, Jacquelynne S. Eccles, Yvonne Anders.

The contribution of science-rich resources to public science interest
John H. Falk, Scott Pattison, David Meier, David Bibas, Kathleen Livingston.

The role of high school racial composition and opportunities to learn in students’ STEM college participation
Martha Cecilia Bottia, Roslyn Arlin Mickelson, Jason Giersch, Elizabeth Steams, Stephanie Moller.

Volume 55, Issue 4
Issue Information

Teachers’ learning to facilitate high-level student thinking: impact of a video-based professional development
Miray Tekkumru-Kisa, Mary Kay Stein, Ryan Coker.

Secondary school science teachers’ arguments for the particulate nature of matter
Robert Gunnarsson, Björn Hellquist, Helge Strömdahl, Dusan Zelic.

Adjusting claims as new evidence emerges: Do students incorporate new evidence into their scientific explanations
Ann M. Novak, David F. Treagust.

The influence of instruction, prior knowledge, and values on climate change risk perception among undergraduates
Osman Aksit, Karen S. McNeal, Anne U. Gold, Julie C. Libarkin, Sara Harris.

Positioning as not-understanding: The value of showing uncertainty for engaging in science
Jessica Watkins, David Hammer, Jennifer Radoff, Lama Z. Jaber, Anna M. Phillips.

Students’ environmental NOS views, compassion, intent, and action: impact of place-based socioscientific issues instruction
Benjamin C. Herman.
An industrial educational laboratory at Ducati Foundation: narrative approaches to mechanics based upon continuum physics
Federico Corni, Hans U. Fuchs, Giovanni Savino.

Comparative study of middle school students’ attitudes towards science: Rasch analysis of entire TIMSS 2011 attitudinal data for England, Singapore, and the U.S.A as well as psychometric properties of attitudes scale
Oon Pey Tee, R. Subramaniam.

Reading for meaning: The foundational knowledge of every teacher of science should have
Alexis Patterson, Diego Roman, Michelle Friend, Jonathan Osborne, Brain Donovan.

Scientific literacy for democratic decision-making
Hagop A. Yacoubian.

Engaging in vocabulary learning in science: the promise of multimodal instruction
Dianna Townsend, Cynthia Brock, Jennifer D. Morrrison.

Taking risks with a growth mindset: long-term influence of an elementary pre-service after school science practicum
T.J. Cartwright, B. Hallar.

Examining the progression and consistency of thermal concepts: a cross-age study
Emine Adadan, Merve Nur Yavuzkaya.

Adapting to a large-scale changes in Advanced Placement Biology, Chemistry, and Physics: the impact of online teacher communities

Effects of explicit instruction on the acquisition of students’ science inquiry skills in grades 5 and 6 of primary education
P.M. Kruit, R.J. Oostdam, E. van den Berg, J.A. Schuitema.
Integrative assessment of Evolutionary theory acceptance and knowledge levels of Biology undergraduate students from a Brazilian university
Gustavo Medina Tavares, Vera Lucia Bobrowski.

Withholding answers during hands-on scientific investigations? Comparing effects on developing students’ scientific knowledge, reasoning, and application
Lin Zhang.

Erratum

Corrigendum
Science Education
Volume 102, Issue 2
Issue Information (Pages 215-218)

The pursuit of a “better” explanation as an organizing framework for science teaching and learning
Nicos Papadouris, Stamatis Vokos, Constantinos P. Constantinou.

Improving STEM program quality in out-of-school time: Tool development and validation
Ashima Mathur Shah, Caroline Wylie, Drew Gitomer, Gil Noam.

What are critical features of science curriculum materials that impact student and teacher outcomes?
Natalie Pareja Roblin, Christian Schunn, Susan McKenney.

The conundrum of social class: Disparities in publishing among STEM students undergraduate research programs at a Hispanic majority institution
Sara Grineski, Heather Daniels, Timothy Collins, Danielle X. Morales, Angela Frederick, Marilyn Garcia.

Students as researchers: What and why seventh-grade students choose to write when investigating their own research question
Tuva Bjokvold, Marte Bilkstad-Balas.

Characterizing elementary teachers’ enactment of high-leverage practices through engineering design-based science instruction
Brenda M. Capobianco, Jacqueline DeLisi, Jeffrey Radloff.

Becoming science learners: A study of newcomers’ identity work in elementary school science
Rebeca Gamez, Carolyn A. Parker.

Children’s idea about fossils and foundational concepts related to fossils
Lisa A. Borgerding, Sara Raven.

Michael J. Ford.
Course-Based Support for Peer-Led Study Group Facilitators in a Large Instructional Team
Rachel A. Barnard, Allison Boone, Claire Sandler, Jordan R. Boothe, Joe Salvatore, Kelley Emerson, Brian P. Coppola.

Evolution in Student Perceptions of a Flipped Classroom in a Computer Programming Course
Casey E. Davenport.

Science and Community Engagement: Connecting Science Students With the Community
Rachael Lancor, Amy Schiebel.

The Role of Faculty in Fostering STEM Transfer Student Success
Laura Reiser Wetzel, Kelly R. Debure.

Breaking Down Barriers: A Bridge Program Helps First-Year Biology Students Connect With Faculty
Katelyn M. Cooper, Michael Ashley, Sara E. Brownell.

Student and Faculty Views on Process of Science Skills at a Large, Research-Intensive University
Elizabeth A. Addis, Jo Anne Powell-Coffman.

Students’Understanding and Perceptions of Assigned Team Roles in a Classroom Laboratory Environment
Laura E. Ott, Kerrie Kephart, Kathleen Stolle-McAllister, William R. LaCourse.

Exploring Power Distribution and Its Influence on the Process of Argumentation in a POGIL Biochemistry Classroom
Annabel N. Prince, Wesley B. Pitts, David W. Parkin.

Point of View: The Professional Science Master’s Degree at Twenty
Sheila Tobias, Linda Strausbaugh.

Two-Year Community: Modeling Tiktaalik: Using a Model-Based Inquiry Approach to Engage Community College Students in the Practices of Science During an Evolution Unit
Christina L. Baze, Ron Gray.
Case Study: Putting Words in Their Mouth: Writing Dialogue For Case Studies

Clyde Freeman Herreid.
Examining the design features of a communication-rich, problem-centered mathematics professional development
Zandra de Araujo, Chandra Hawley Orrill, Erik Jacobson.

The effect of attending tutoring on course grades in Calculus I
Brian Rickard, Melissa Mills.

A typological analysis: understanding pre-service teacher beliefs and how they are transformed
Mary Elizabeth Riley Lloyd.

Capturing student mathematical engagement through differently enacted classroom practices: applying a modification of Watson’s analytical tool
Sitti Maesuri Patahuddin, Indira Puteri, Tom Lowrie, Tracy Logan, Baiq Rika.

A multidimensional approach to training mathematics students at a university: improving the efficacy through the unity of social, psychological and pedagogical aspects
Elena Kuznetsova, Marina Matytcina.

Incentivizing advanced mathematics study at upper secondary level: the case of bonus points in Ireland
Páraic Thomas Treacy.

An interesting property of hexagons
Arsaian Wares.

Various solution methods, accompanied by dynamic investigation, for the same problem as a means for enriching the mathematical toolbox
Victor Oxman, Moshe Stupel.

Viète’s formula and an error bound without Taylor’s Theorem
Chris Boucher.

Wine and maths: mathematical solutions to wine-inspired problems
L. Cadeddu, A. Cauli.

Learning fraction comparison by using a dynamic mathematics software-GeoGebra
Kin Keung Poon.
Journal of Mathematical Behavior

Volume 49

Editorial Board

Are indirect proofs less convincing? A study of students’ comparative assessments
Stacy Ann Brown.

How mathematicians assign points to student proofs
David Miller, Nicole Infante, Keith Weber.

Eye color and the practice of statistics in Grade 6: Comparing two groups
Jane Watson, Lyn English.

Real analysis students’ understanding of pointwise convergence of function sequences in a DGS assisted learning environment
Günhan Caglayan.

Secondary mathematics teachers’ instrumental integration in technology-rich geometry classrooms
Karen Hollebrands, Samet Okumus.

An investigation of an undergraduate student’s reasoning with zero-divisors and the zero-product property
John Paul Cook.

Knowledge of nonlocal mathematics for teaching
Nicholas H. Wasserman.

From course design to presentations of proofs: How mathematics professors attend to student independent proof reading
Alon Pinto, Ronnie Karsenty.

Effects of constructing, critiquing, and revising arguments within university classrooms
Sean P. Yee, Justin D. Boyle, Yi-Yin (Winnie) Ko, Sarah K. Bleiler-Baxter.

Mathematics teachers’ attention to potential classroom situations of argumentation
Michal Ayalon, Rina Hershkowitz.
Students’ epistemological frames and their interpretation of lectures in advanced mathematics
Victoria Krupnik, Timothy Fukawa-Connelly, Keith Weber.

Undergraduates’ images of the root concept in R and C
Igor’ Kontorovich.
Journal for Research in Mathematics Education

Vol. 49, No. 2

Theorizing Collaborative Mathematics Teacher Learning in Communities of Practice
Nicole A. Bannister.

A Review of Cases for Mathematics Teacher Educators: Facilitating Conversations About Inequities in Mathematics Classrooms
232

Data in a Brave New World: Reducing Isolation to Amplify the Impact of Educational Research on Practice

Equity Analytics: A Methodological Approach for Quantifying Participation Patterns in Mathematics Classroom Discourse
Daniel L. Reinholz, Niral Shah.

Loving and Loathing: Portrayals of School Mathematics in Young Adult Fiction
Lisa Darragh.

Brief Report: A Progression of Fraction Schemes Common to Chinese and U.S. Students
Anderson Norton, Jesse L.M. Wilkins, Cong ze Xu.

Search for New JRME Editor

A Guide to Analyzing Mathematics Tasks and Their Implementation in Curriculum Resources
Janine T. Remillard, Michael Manganello, Amber Daniel.
Journal of Mathematics Teacher Education

Volume 21, Issue 1
Mathematics teacher’s knowledge, knowledge-based reasoning, and contexts
Salvador Llinares.

Audible conversational affordances and constraints of verbalizing professional noticing during prospective teacher lesson study
Julie M. Amador, Ingrid S. Carter.

More than meets the eye: patterns and shifts in middle school mathematics teachers’ descriptions of models
Michelle H. Wilkerson, Alfredo Bautista, Roger G. Tobin, Bábara M. Brizuela, Ying Cao.

Assessing key epistemic features of didactic-mathematical knowledge of prospective teachers: the case of the derivative
Luis R. Pino-Fan, Juan D. Godino, Vicenc Font.

Volume 21, Issue 2
Understanding elementary mathematics teacher education through the characteristics and activities of preservice teachers, elementary mathematics specialists, and mathematics teacher educators
Gwendolyn M. Lloyd.

ABC problem in elementary mathematics education: Arithmetic before comprehension
Stacy K. Boote, David N. Boote.

The preparation experiences of elementary mathematics specialists: examining influences on beliefs, content knowledge, and teaching practices
Susan L. Swars, Stephanie Z. Smith, Marvin E. Smith, Jody Carothers, Kayla Myers.

Examining change in K-3 teachers’ mathematical knowledge, attitudes, and beliefs: the case of Primarily Math

Mathematics teacher educators’ perspectives on their design of content courses for elementary preservice teachers
Wenjuan Li, Alison Castro Superfine.
Mathematics Teacher Educator

Volume 6, No. 2

What Makes Us Different Makes Us Stronger: A Statement by the MTE Editorial Board

What’s Your Evidence? Making Evidence-Based Claims and Why This Matters
Kristen Bleda, Sandra Crespo.

Tools for Rethinking Classroom Participation in Secondary Mathematics
Laurie H. Rubel, Anders J. Stachelek.

Using Online Collaboration to Improve Prospective Teachers’ Analysis of Teaching
Sandy Spitzer, Christine Phelps-Gregory.

An Online Professional Development Model to Support Teachers’ Abilities to Examine Student Work and Thinking
Tim Fukawa-Connelly, Valerie Klein, Jason Sliverman, Wesley Shumar.

En/countering Inclusive Mathematics Education: A Case of Professional Learning
Paulo Tan, Kathleen King Thorius.

When Mathematics Teacher Educators Come Under Attack
Rochelle Gutiérrez.
The Role of Metamoticational Monitoring in Motivation Regulation
David B. Miele, Abigail A. Scholer.

Women in Academic Science: Experimental Findings From Hiring Studies
Stephen J. Ceci.

Executive Function and Reading Comprehension: A Meta-Analytic Review
D. Jake Follmer.
Educational Psychology Review

Volume 30, Issue 1

What Schools Need to Know About Fostering School Belonging-a Meta-analysis
Kelly Allen, Margaret L. Kern, Dianne Vella-Brodrick, John Hattie, Lea Waters.

Systems View of School Climate: a Theoretical Framework for Research
Kathleen Mortiz Rudasill, Kate E. Snyder, Heather Levinson, Jill L. Adelson.

Associations Between Language and Problem Behavior: a Systematic Review and Correctional Meta-analysis
Jason C. Chow, Joseph G. Wehby.

Writing in the Secondary-Level Disciplines: a Systematic Review of Context, Cognition, and Content
Diane M. Miller, Chyllis E. Scott, Erin M. McTigue.

Does Text Complexity Matter in the Elementary Grades? A Research Synthesis of Text Difficulty and Elementary Students’ Reading Fluency and Comprehension
Steven J. Amendum, Kristin Conradi, Elfrieda Hiebert.

Promoting Argumentation Competence: Extending from First-to Second-Order Scaffolding Through Adaptive Fading
Omid Noroozi, Paul A. Kirschner, Harm J.A. Biemans, Martin Mulder.

Chinese Education Examined via the Lens of Self-Determination
Shi Yu, Beiwen Chen, Chantal Levesque-Bristol, Maarten Vansteenkiste.

Retrieval Practice Benefits Deductive Interference

Task Experience as a Boundary Condition for the Negative Effects of Irrelevant Information on Learning
Gertjan Rop, Margot Van Wermeskerken, Jacqueline A. de Nooijer, Peter P.J.L. Verkoeijen, Tamara van Gog.

Managing Element Interactivity in Equation Solving
Bing Hiong Ngu, Huy P. Phan, Alexander Seeshing Yeung, Siu Fung Chung.

Erratum to: Managing Element Interactivity in Equation Solving
Bing Hiong Ngu, Huy P. Phan, Alexander Seeshing Yeung, Siu Fung Chung.
Which Technique is most Effective for Learning Declarative Concepts-Provided Examples, Generated Examples, or Both?
Amanda Zamary Katherine A. Rawson.

Conversations with Four Highly Productive German Educational Psychologists: Frank Fischer, Hans Gruber, Heinz Mandl, and Alexander Renkl
Abraham E. Flanigan, Kenneth A. Kiewra, Linlin Luo.