

## Journals of Interest - Mathematics and Science Education

January 2017

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## **Educational Studies of Mathematics**

[Volume 94, Issue 2 Pages 117-239](#)

**Explicating *mathematical concept* and *mathematicalm conception* as theoretical constructs for mathematics education research**

Martin A. Simon

**Secondary-to-tertiary comparison through the lens of ways of doing mathematics in relation to functions: a study in collaboration with teachers**

Claudia Corriveau

**Professional competencies of (prospective) mathematics teachers—cognitive versus situated approaches**

Gabriele Kaiser, Sigrid Blömeke, Johannes König

**Erratum to: Professional competencies of (prospective) mathematics teachers - cognitive versus situated approaches**

Gabriele Kaiser, Sigrid Blömeke, Johannes König

**Students' individual schematization pathways - empirical reconstructions for the case of part-of-part determination for fractions**

Matthias Glade, Susanne Prediger

**Asymmetry in student achievement on multiple-choice and constructed-response items in reversible mathematics processes**

Christopher J. Sangwin, Ian Jones

**Students' understanding of the structure of deductive proof**

Mikio Miyazaki, Taro Fujita, Keith Jones

## Journal of Research in Science Teaching

[Volume 54, Issue 1](#)

**Issue Information TOC (page 1)**

Version of Record online: 9 DEC 2016 | DOI: 10.1002/tea.21349

**Emotional and motivational outcomes of lab work in the secondary intermediate track: The contribution of a science center outreach lab (pages 3–28)**

Heike Itzek-Greulich and Christian Vollmer

Version of Record online: 5 DEC 2016 | DOI: 10.1002/tea.21334

**Students from non-dominant linguistic backgrounds making sense of cosmology visualizations (pages 29–57)**

Zoë E. Buck Bracey

Version of Record online: 21 JUN 2016 | DOI: 10.1002/tea.21337

**Effective secondary science programs: A best-evidence synthesis (pages 58–81)**

Alan Cheung, Robert E. Slavin, Elizabeth Kim and Cynthia Lake

Version of Record online: 21 JUL 2016 | DOI: 10.1002/tea.21338

**A longitudinal analysis of the extent and manner of representations of nature of science in U.S. high school biology and physics textbooks (pages 82–120)**

Fouad Abd-El-Khalick, John Y. Myers, Ryan Summers, Jeanne Brunner, Noemi Waight, Nader Wahbeh, Ava A. Zeineddin and Jeremy Belarmino

Version of Record online: 16 JUN 2016 | DOI: 10.1002/tea.21339

**Informal science institutions and learning to teach: An examination of identity, agency, and affordances (pages 121–138)**

Jennifer D. Adams and Preeti Gupta

Version of Record online: 25 AUG 2015 | DOI: 10.1002/tea.21270

## **International Journal of Science Education**

[Volume 38. Issue 18](#)

### **Developing young adults' representational competence through infographic-based science news reporting**

Engida H. Gebre & Joseph L. Polman

Pages: 2667-2687

### **Development and validation of an instrument for evaluating inquiry-based tasks in science textbooks**

Wenyuan Yang & Enshan Liu

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### **The impact of a professional development model on middle school science teachers' efficacy and implementation of inquiry**

Christine Lotter, Whitney Smiley, Stephen Thompson & Tammiee

Dickenson

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### **Explaining variation in student efforts towards using math and science knowledge in engineering contexts**

Leema K. Berland & Rebecca Steingut

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### **Engineering design in the primary school: applying stem concepts to build an optical instrument**

Donna King & Lyn D. English

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## The Journal of Mathematical Behavior

[Volume 45 Pages 1-166](#)

**Preservice teachers' pictorial strategies for a multistep multiplicative fraction problem**

Jae M. Baek, Megan H. Wickstrom, Jennifer M. Tobias, Amanda L. Miller, Elif Safak, Nicole Wessman-Enzinger, J. Vince Kirwan

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**Looking back to the roots of partially correct constructs: The case of the area model in probability**

Gila Ron, Tommy Dreyfus, Rina Hershkowitz

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**Teacher attention to number choice in problem posing**

Tonia J. Land

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**Integer comparisons across the grades: Students' justifications and ways of reasoning**

Ian Whitacre, Beti Azuz, Lisa L.C. Lamb, Jessica Pierson Bishop, Bonnie P. Schappelle, Randolph A. Philipp

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**Playing the *believing game*: Enhancing productive discourse and mathematical understanding**

Shelly Sheats Harkness, Bethany Noblitt

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**How can emphasizing mathematical modeling principles benefit students in a traditionally taught differential equations course?**

Jennifer A. Czocher

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**An exploratory study on student understandings of derivatives in real-world, non-kinematics contexts**

Steven R. Jones

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**Inspecting the foundations of claims about cognitive demand and student learning: A citation analysis of Stein and Lane (1996)**

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**Dylan's units coordinating across contexts**

Steven Boyce, Anderson Norton  
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**Understanding and advancing graduate teaching assistants' mathematical knowledge for teaching**

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**Eliminating counterexamples: A Grade 8 student's learning trajectory for contrapositive proving**

David A. Yopp  
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# Journal of Stem Teacher (Online)

(Current issue fall of 2016)

## **Journal of Mathematics Teacher Education**

[Volume 20, Issue 1](#)

**Attending to mathematics teacher thinking**

Olive Chapman

**On mathematical understanding: perspectives of experienced Chinese mathematics teachers**

Jinfa Cai, Meixia Ding

**Introducing a symbolic interactionist approach on teaching mathematics: the case of revoicing as an interactional strategy in the teaching of probability**

Andreas Eckert, Per Nilsson

**Mathematics education as sociopolitical: prospective teachers' views of the What, Who, and How**

Mathew D. Felton-Koestler

**Pivotal teaching moments in technology-intensive secondary geometry classrooms**

Charity Cayton, Karen Hollebrands, Samet Okumuş