

Fall 2017



The Math-Science Connector

Report of the 2017 Fall Annual Convention





The School Science and Mathematics Association Convention this year was incredible. Every fall I look forward to great sessions, interesting keynote speakers, a new place to visit and explore, and wonderful conversation with old and new friends – this year's convention in Lexington did not disappoint!

Special thanks goes to this year's Program Chairs and Local Arrangement Chairs from the University of Kentucky Department of STEM Education. Thank you, Lisa Amick, Brett Criswell, Molly Fisher, Cindy

Jong, Rebecca Krall, Margaret Mohr-Schroeder, Jonathan Thomas, and Jennifer Wilhelm for a wonderfully organized and interesting convention. Attendees at this year's convention enjoyed 122 sessions which included 70 research sessions, 34 regular sessions, 9 workshops, 5 quick fire sessions, 2



innovative showcases, 1 syllabus share, and 1 special session. Amongst the attendees this year were numerous first-time attendees and nearly 70 graduate students. SSMA extends a warm welcome to you and we hope that we will see you next year in Arkansas.

The keynote speakers for this year's convention helped bring science and mathematics together in

interesting ways! Justin LeVaughn, Chief Science Officer for Ethereal Brewing Company presented a wonderful keynote address on Thursday evening sharing how his background in cellular biology and STEM education support his work as a brewer. Justin emphasized the idea that modern beer making practices rely on scientific concepts in chemistry, physics, and biology and left us all wondering and thinking about hunting wild yeast!

During Friday's luncheon our keynote speaker, Dr. Suzanne



Weaver Smith, had our

heads in the clouds. Her talk focused on the CLOUD-MAP – a multiuniversity collaboration to develop small unmanned aircraft systems technologies for enhanced meteorology and atmospheric physics. Beyond sharing information about the work of her group, Dr. Smith provided a wonderful picture of how global collaboration. Our final keynote address was provided by Dr. Sandra Batsel-Thomas during Saturday morning breakfast. Dr. Bastel-Thomas is Associate Professor

in Psychiatry and the Program Director for the Psychiatry Residency Training Program at the University of Kentucky. She shared her journey through science and what led her from the world of molecular biology to the field of psychiatry.

Again, it was wonderful to spend time with the SSMA family this fall, catching-up with old friends, enjoying incredible sessions, and meeting new friends and colleagues.

Stacy Reeder

SSMA President

School Science and Mathematics was published for the first time in 1901 and since then has become a premier journal for STEM education. Our organization has spent the last few years determining what to do to preserve past hard copy volumes of the journal. Several executive directors have cared for these journals and several past presidents helped to sort and catalogue them over the years. However, this past year, SSMA Director-at-Large Charles "Chuck" Emenaker, sorted, catalogued, and stored all the past volumes of SSM. Chuck's work with the journals allowed us to auction several volumes at this year's convention with the proceeds going to SSMA endowment fund.



Thank you, Chuck for all your hours of work helping to preserve an important piece of SSMA history -- your time and effort helping bring this project of many years to fruition is greatly appreciated.



Outgoing Board Members

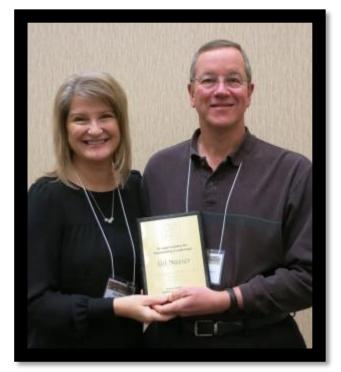


Chuck Emenaker



Elaine Tuft

Outgoing Past-President



Fall Leadership Meeting





President-Elect celebrates her birthday!



Lexington Conference



A Few Past Presidents!



Making lip balm was fun!

John Park Travel Awardees



Keith Kershen Baylor University Ryann Shelton Baylor University Wanjing Ma- New York University Beau Hartweg – Texas Christian University Morgan Stewart - Texas Christian University Cacey Wells - U. of Oklahoma Traci Kelley - U. of Oklahoma Melissa Gunter - U. of Oklahoma Wenmin Zhao - U. of Missouri











Top 10 SSM Articles Downloaded Through September 30

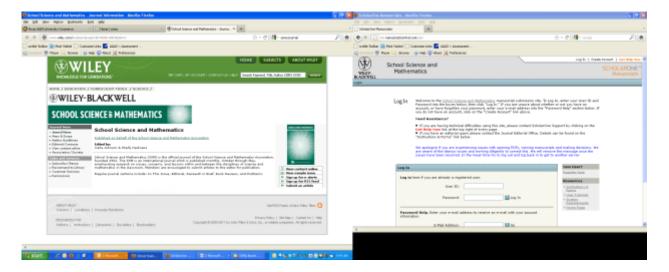
Volume	Issue	Article Title	Full Text Downloads 2017
112	1	What Is STEM? A Discussion About Conceptions of STEM in Education and Partnerships	1269
98	4	Geometric Knowledge of Middle School Students in a Reform-based Mathematics Curriculum	1078
117	1-2	Developing a Conceptual Model of STEAM Teaching Practices	871
116	6	A Study of Student Engagement in Project-Based Learning Across Multiple Approaches to STEM Education Programs	641
116	6	Characterizing STEM Teacher Education: Affordances and Constraints of Explicit STEM Preparation for Elementary Teachers	564
106	4	Mathematics Anxiety and Preservice Elementary Teachers' Confidence to Teach Mathematics and Science	444
112	1	Learning for STEM Literacy: STEM Literacy for Learning	423
112	1	Is Adding the E Enough? Investigating the Impact of K-12 Engineering Standards on the Implementation of STEM Integration	422
112	1	Implementation of STEM Education Policy: Challenges, Progress, and Lessons Learned	418
99	5	Research on Professional Development for Teachers of Mathematics and Science: The State of the Scene	402

School Science and Mathematics, the SSMA Journal

Dr. Carla Johnson, Editor	Dr. Shelly Harkness, Co-Editor
carlacjohnson@purdue.edu	harkneml@ucmail.uc.edu

Please see an issue of the Journal or visit http://www.wiley.com/bw/journal.asp?ref=0036-6803 for more information about article submission. The journal's focus is on data-based research manuscripts on PK-12 teaching or learning of science or mathematics, or their integration.

Manuscript submissions for *School Science and Mathematics* are now online through the ScholarOne website at http://mc.manuscriptcentral.com/ssm. Hard copy submissions are no longer accepted. See the current issue of the journal for information about calls for manuscripts.



If you would like to be a Reviewer, please contact the Editors (carlacjohnson@purdue.edu or



harkneml@ucmail.uc.edu). Reviewers prepare comments, reviews, and recommendations for 1-2 manuscripts a year in their area of specialization. Reviewers are needed in all areas of expertise

especially teacher professional



all areas of expertise, preparation and development.

Want to serve on the Board or nominate someone to serve?



Nominations for SSMA Board of Directors

To nominate a candidate to serve on the SSMA Board of Directors, a petition of twenty-five (25) signatures can be sent to Ken Miller, Chair of the Nomination and Election Committee. Selfnominations are accepted as well. Please contact:

Ken Miller Department of Educational Theory & Practice College of Education Montana State University-Billings Billings, MT 59101 Kmiller@msubillings.edu

Call for SSMA 2018 Awards

Deadline for submission of nominations: March 15, 2018

The SSMA Awards Committee invites the membership to submit nominees to be considered for the following awards:

GEORGE G. MALLINSON DISTINGUISHED SERVICE AWARD

The award is given to those who have been a member of SSMA for at least ten (10) years and who have shown substantial participation and leadership in SSMA activities such as paper presentations at meetings, committee work, membership work, reviewing for journal, and so forth. Nomination is limited to SSMA members who are nominated by a current member of SSMA.

AWARD FOR EXCELLENCE IN INTEGRATING SCIENCE AND MATHEMATICS

The award is given to a person or group who/which has fostered, promoted, and extended the integration of mathematics/science. The nominee should be a person or group who is active in science/mathematics education and in the development of curricula for the preparation of teachers, educational research, or other activities of significant educational value; thereby showing an impact on science/mathematics education. The competition is open to non-SSMA members but all applicants must be nominated by an SSMA member.

SSMA CONNECTIONS AWARD

The nominee should be a person working in K-12 who has been a leader of an exemplary teaching and learning project that is school-based and focused on connections between science and mathematics.

OUTSTANDING EARLY CAREER SCHOLAR AWARD

The nominee should be a person, within five years of receiving a doctoral degree, with an exemplary and productive program of research related to science and/or mathematics education. The nominee must be an SSMA member in good standing for at least 1 year prior to the submission of an application.

SSMA OUTSTANDING DISSERTATION AWARD

The Award is given for dissertations related to science education, mathematics education, or integrated science and mathematics education. Competition is open to non-members, but all applicants must be nominated by an SSMA member. The nominee's dissertation must have been completed within the last three years.

Criteria details for each award can be found online at <u>http://www.ssma.org/award-descriptions-and-requirements.</u> Any member of SSMA is free to nominate a person(s) satisfying the criteria noted above.

Materials (for each award) are to be sent electronically to Melanie L Shores (mshores@uab.edu) & the SSMA office (office@ssma.org) prior to March 15, 2018

SAVE the DATE October 30-November 4, 2018 Annual SSMA Convention DoubleTree 424 West Markham St Little Rock, Arkansas



Call for Proposals Available – January 8, 2018 Proposal Submission Deadline – March 16, 2018 Proposal Acceptance Decision – May 31, 2018

www.ssma.org

We will host Research Presentations, Regular Sessions, Symposium/Panel sessions, Interactive/Hands-On Workshops. Roundtables along with several new formats. If you have questions about the Conference, please contact: Conference Chair – Gil Naizer (gilbert.naizer@tamuc.edu)

2018 SSMA Proceedings Information

The 2018 convention will continue to feature a peer reviewed conference proceedings. Anyone accepted to present at the 2018 convention is invited to submit a paper! The papers – empirical or practitioner, not to exceed 8 pages including tables, figures, and references – are due AUGUST 1, 2018. Be sure that you follow the correct format – see SSMA Proceedings Guidelines and the templates at <u>http://www.ssma.org</u>. If you have any further questions, please contact us at <u>ssmaproceedings@gmail.com</u>

About Our Organization...

SCHOOL SCIENCE AND MATHEMATICS ASSOCIATION

School of Education

University of Alabama Birmingham

Birmingham, AL 35924

Phone (205) 934-5067

E-Mail

office@ssma.org We're on the Web! See us at:

http://www.ssma.org/

Membership in the School Science and Mathematics Association is open to any person who supports the objectives of the Association, who has paid membership dues, and completed an application.

Benefits of SSMA Membership include:

- Membership in an association encompassing both science and mathematics teaching and learning.
- 8 issues of the official journal *School Science and Mathematics*.
- 2 issues of the SSMA newsletter *The Math-Science Connector*.
- Opportunities to submit presentation proposals for the Annual Convention.
- Voting privileges for Association business and election of officers.
- Opportunities to serve on an SSMA Committee or Leadership Team.

Additional information about SSMA is available at our website (http://www.ssma.org) or by contacting *Melanie Shores and Tommy Utley* (office@ssma.org).

Contact information for all SSMA Board Members and Committee Members can be found online at http://www.ssma.org/

To contribute news items for the SSMA newsletter (*The Math-Science Connector*), please contact **Georgia Cobbs** (georgia.cobbs@umontana.edu).

