



OFFICIAL
NEWSLETTER
OF THE
HOOSIER
ASSOCIATION
OF
MATHEMATICS
TEACHER
EDUCATORS

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HAMTE Crossroads

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FALL 2014

Message from the HAMTE President



I hope you all had a productive and rewarding summer. As we are almost half way through the fall semester, it has been interesting to hear that our members are working on a number of exciting activities that include teaching, service, and research. However, the news about teacher education in Indiana suggests that there is a lot more work for us to do as an organization. Several developments during this past year require our attention. Indiana adopted new academic standards and abandoned the Common Core State Standards; this has caused some confusion among teachers throughout the State. Also in September, the Indiana State Board of Education approved the Rules for Educator Preparation and Accountability (REPA III). The rules provide for an adjunct "career specialist" permit that allows anyone with a bachelor's degree and a 3.0 grade point average to enter a classroom as a teacher, bypassing any professional preparation for teaching. We should reflect and act on these developments to help improve the professionalization of mathematics teaching in Indiana.

Every year there are some transitions for HAMTE officers. This year we are looking for a new treasurer and for a new President-Elect. As in the past, we have very strong candidates for these two offices and it is rewarding to see that HAMTE members are willing to serve our organization and keep it growing. We are very thankful for the services that Past-President Jill Newton and outgoing Treasurer Sue Mau have provided. They will be greatly missed by board members, but we know they will continue to serve our organization in different ways. Thanks also to Liz Brown, chair of the Nominations and Elections Committee, who is completing her two years of service on this committee.

The NCTM regional meeting will take place in Indianapolis Oct 29 – 31, 2014. We will have our annual HAMTE meeting concurrently on Wednesday Oct 29. The HAMTE business meeting will be from 3:30 p.m. to 5:00 p.m. in the Senate Room of the Westin Hotel and we plan to go out to dinner after the NCTM opening session. Please also join the different working groups that will be meeting in the Senate Room from 12:30 to 3:30 p.m. Further details are below. I look forward to seeing all of you then.

ANNUAL HAMTE MEETING @ NCTM REGIONAL

Wednesday, October 29, 2014 Calendar of HAMTE Events:

12:30-3:30 PM HAMTE Working Groups, Senate Room, Westin

Contact Jill Newton with availability if interested at jnewton@purdue.edu. (Groups include Research, Elementary Math Specialist, Indiana Issues, PME-NA Hosting Committee, and possible others TBD).

3:30-5:00 PM HAMTE Business Meeting, Senate Room, Westin
(includes elections for President and Treasurer)

5:30-7:00 PM NCTM Opening Session

7:30 PM HAMTE Dinner, Ram Brewery, 140 S. Illinois Street

RSVP to Craig Willey at cjwilley@iupui.edu.

Please plan to renew your HAMTE membership at the business meeting by bringing a check for \$20 and a completed form (see page six).

Registration info for NCTM regional is available at <http://www.nctm.org/Indianapolis/>

Best Practices for Online Teaching, Part III

— Kathryn G. Shafer, Ball State University

A live session in an online course must provide a high level of engagement to justify meeting together at the same time. What follows are suggestions for preparing class materials and class communication procedures. Establishing a routine with a tight time sequence is important; think of your session as a radio program.

Editor's Note:

This is the last of three installments in which Kathy Shafer shares her suggestions for teaching mathematics online.

Previous issues of HAMTE Crossroads are available on our website www.HAMTE.org.

If you have your own best classroom practices, consider sharing them in a future issue of HAMTE Crossroads.

E-mail them to tmiller@uindy.edu

Preparing Materials

- Organize your material in chunks that are six to twelve minutes in length.
- Follow an agenda with duration times posted for each item. I display the agenda on the screen so everyone knows how much time is allotted for each goal/task.
- Use a consistent agenda format each week to set a routine.
- Prepare information so it is easily accessible on your desktop or browser. Changing documents/applications/webpages should be quick and easy. Options include:
 - ◊ Open and then minimize files until you need them
 - ◊ Hot link files to an online document or website
- Use polls and quiz questions to engage students throughout the class session.
- Refrain from showing movies or straight-up lecturing during class. This information can be posted and viewed online anytime/anywhere.
- Have a back-up plan in place in case any problems occur with the technology during the live class.

During Class – Communication

- Assign students to assist in the online classroom - one to monitor the chat pod and interrupt you when necessary and one to control microphones or change presenters. Begin the semester with volunteers and then rotate each class session.
- Encourage social media type interaction where folks type questions or comments in real time. Do not ask “do you have any questions?” If you include wait-time (which is good in a face-to-face class), you will have dead air and that is deadly, especially if the session is recorded. Late questions can be revisited before the end of class.
- Inform students that chat pod interaction is short clips of text, not long paragraphs and typos are acceptable.
- Have a procedure in place to address questions you are not prepared to answer on the fly. Sometimes, I post an answer in Bb, or send out an email with information after class. Again, try not to slow the pace with a long mental pause.
- Allow students to send/receive private messages to/from you. I find this helpful because students will have information they do not want to make public to the whole class. I allow, but do not monitor, private conversations between students.

Continued on page three

Benjamin Banneker Association

The Benjamin Banneker Association (<http://bannekermath.org/>) presents a celebration honoring the life and accomplishments of Benjamin Banneker (1731-1806), an African-American scientist, surveyor, almanac author and farmer. If you are interested in making mathematics a significant part of children's lives, please coordinate a Benjamin Banneker Celebration event in your community during the week of November 9th – November 15th (you chose a day to celebrate). Please visit <http://benjaminbannekerday.weebly.com/> for more information.

Indiana Academic Standards (2014) Professional Development

The Indiana Department of Education will offer 10 regional professional development sessions titled *"Instructional Shifts in College and Career Readiness: Strategies that Empower Teaching and Learning"* to support educators across Indiana in the implementation of the Indiana Academic Standards for English/Language Arts and Mathematics. Participants will develop deeper understandings of the standards and related resources. Participants are recommended to attend the session in teams. Participants may register at <http://www.doe.in.gov/standards/regionaltraining>. Registration closes seven days prior to each session; space is limited. More information may be found on the registration flyer at <http://www.doe.in.gov/sites/default/files/standards/TrainingFlyerEd.pdf>.

Best Practices for Online Teaching *(continued from page two)*

- Give students control of the class through short presentations (screen sharing), discussions, and debates. You will appreciate the break from "running the show."
- Set a procedure to cut off a speaker who dominates. Long-winded students in f2f classes will behave the same online. Be prepared to use a timer.
- Have a sense of humor, but do not use sarcasm. You have probably heard this before, but as the instructor, just don't go there!
- Smile when talking to your computer. It might seem strange, but this will actually change the tone of your voice.
- Encourage students to leave the online meeting space when class is over. It is awkward for them to leave without a visual goodbye message or verbal cue. I say "stick around if you have a question, if not, you are free to go." Also, give students a time limit after class, like "I am free until 9 pm."

This third and final installment transcends the three types of classes that I teach – seminar, technology, and mathematics content. If you are new to online teaching, or are a veteran, I want to encourage you to record a class session and review it noting your strengths and weaknesses. Soliciting feedback from students and peers is also recommended. The reason I suggest this is because online teaching often times gets a bad reputation, but in reality, it can actually be more productive and personalized than face-to-face teaching.

Candidates for HAMTE Treasurer

Rachael Kenney, Associate Professor of Mathematics Education, Dept. of Curriculum & Instruction, Purdue University West Lafayette. I hold a joint appointment in the Department of Mathematics and the Department of Curriculum and Instruction. I earned a Ph.D. in Mathematics Education from North Carolina State University in 2008. My research focuses on symbol sense, use of technology for working with symbolic expressions in mathematics, and students' and teachers' anticipatory and reflective practices in learning and teaching mathematics. Currently, I am the Program Convener for secondary mathematics education and I also serve on the Undergraduate Curriculum Committee in mathematics.

I have experiences with managing budgets and finances in my work on nine grants at Purdue and through work in various fund-raising settings in the past. Organization, reliability, leadership, and responsibility are traits and skills that I value in myself and that I believe lend themselves to my ability to serve in the HAMTE treasurer position. I have been an active member of HAMTE since the organization's beginning, and I am interested in being a part of the leadership team to keep HAMTE's goals moving forward.

Yi-Yin (Winnie) Ko, Assistant Professor of Mathematics Education, Department of Mathematics and Computer Science, Indiana State University. At ISU I teach both mathematics and mathematics education courses at the undergraduate and graduate level. I received my Ph.D. in Mathematics Education from the University of Wisconsin-Madison and my master's degree in Mathematics from National Changhua University of Education in Taiwan. Prior to coming to the U.S. for graduate school, I had taught secondary school mathematics in Taiwan.

My primary research interests are the teaching and learning of fundamental mathematical practices in both K-12 schools and university settings, particularly as they relate to mathematical reasoning, representation, generalization, justification, and proof. I am also interested in using students' mathematical thinking to develop pre-service and in-service teachers' mathematical knowledge for teaching. A central goal of my research is to understand students' and teachers' mathematical thinking and reasoning in order to guide the design of courses and the development of instructional approaches aimed at enhancing students' learning and teachers' instruction of mathematics.

I have regularly attended and presented at HAMTE since being a faculty member at Indiana State University. As a member of the HAMTE algebra research group, I collaborate with other faculty to analyze and report data related to algebra remediation in Indiana. We are currently looking for funding to continue our efforts on this work. HAMTE has been important to me, as it has provided me with opportunities to interact and collaborate with mathematics educators beyond my home institution. I am very honored to be nominated for the treasurer position at HAMTE, and I look forward to this opportunity to serve HAMTE in this new capacity.

Candidates for HAMTE President

Sheryl Stump, Professor, Dept. of Mathematical Sciences, Ball State University. Originally from Iowa, I taught high school mathematics for six years in New Mexico and New York before earning an MS in Mathematics from the University of Iowa and a PhD in Mathematics Education from Illinois State University. I came to Ball State University in 1996, and here I have enjoyed designing curriculum and teaching undergraduate and graduate classes for prospective and practicing teachers. My research and scholarship has focused on the development of teachers' knowledge for teaching mathematics through problem solving and inquiry. Some of that work has focused on algebra, and I am devoted to fostering a more dynamic and meaningful understanding of concepts and symbols. I am also interested in mathematics teacher leadership, and I have worked with colleagues across Indiana to study and promote the issue of elementary mathematics specialists.

Since its inception in 2011, HAMTE has provided valuable opportunities for mathematics teacher educators in Indiana to connect with each other, form collaborations, tackle important issues, report on research, share experiences, and make new friends. I have appreciated the benefits of expanding my group of working colleagues to include the people I have met through HAMTE, and I would be honored to serve as President. I would strive to perpetuate the group energy that has been so admirably established and sustained by Jill and Enrique. I would do my best to lead the group toward its goals, to respect its constitution and bylaws, and to support the members in their individual and collective efforts to improve mathematics teacher education. I would attentively serve the group, representing HAMTE to our parent organization, AMTE, and to the citizens of Indiana.

Signe E. Kastberg, Associate Professor of Mathematics Education, Dept. of Curriculum & Instruction, Purdue University West Lafayette. Colleagues, HAMTE is a unique organization that serves the diverse needs of mathematics teacher educators in Indiana. Together we contribute to the development of the future of Indiana. Nothing excites me more than mathematics education and thinking about how people think about mathematics and its teaching. In my work as a mathematics teacher educator I am curious about many things, but recently I have worked to gain insight into the scholarly practices and inquiry (Lee & Mewborn, 2009) of mathematics teacher educators (D'Ambrosio & Kastberg, 2012; Kastberg, Sanchez, Edenfield, Tyminski, & Stump, 2012). I am honored to be considered as a candidate for HAMTE president and seek to join with you to create opportunities for dialogue, exploration, and the recognition of our work and our roles in mathematics education in the state and the nation.

My primary research expertise is in the area of the development of mathematical reasoning in the multiplicative conceptual field (Vergnaud, 1994), particularly place value, and prospective and practicing teachers' use of children's reasoning in instructional interactions. I have worked with K-9 classroom teachers to understand, support, and report the development of practices. I deeply value communicating with colleagues about teaching and have sought to maximize my opportunities to discuss new ideas in mathematics education by publishing in National Council of Teachers of Mathematics journals and books (Kastberg & Frye, 2013; Kastberg & Otoupal-Hylton, 2006; Kastberg, Otoupal-Hylton, & Farmer, 2008). I am also dedicated to understanding how teachers' explorations of children's mathematics can foster the development of teachers' mathematics (Kastberg & D'Ambrosio, 2011; Kastberg & Walker, 2008).

As you think of how we might support mathematics teacher education in the state of Indiana, I would be honored to work with you to create opportunities to explore our common goals and be vocal about the powerful force that is mathematics teacher education in Indiana.



Hoosier Association of Mathematics Teacher Educators

Membership Form

**Complete & bring
to the Oct. 29th
business meeting!**

☐ New Member ☐ Renewal

☐ Regular Member (\$20) ☐ Student (\$10) ☐ Emeritus (\$10)

Name: _____

Affiliation: _____

Mailing Address: _____

City: _____ State: _____ Zip: _____

Work Phone: _____ Work Fax: _____

Home Phone: _____ e-mail address: _____

What are your mathematics-related instructional/professional responsibilities?
(Check all that apply.)

- ☐ Teach elementary mathematics methods courses
- ☐ Teach secondary mathematics methods courses
- ☐ Teach mathematics content courses for prospective elementary teachers
- ☐ Teach mathematics content courses for mathematics majors
- ☐ Teach graduate courses for elementary school teachers
- ☐ Teach graduate courses for secondary-level mathematics teachers
- ☐ Provide professional development for elementary school teachers
- ☐ Provide professional development for secondary-level mathematics teachers
- ☐ Develop mathematics curricula
- ☐ Other: _____

Please mail this form and a check made payable to HAMTE to the following address or bring your form/check to the HAMTE/ICTM meeting:

Sue Mau
Indiana University Purdue University Fort Wayne
2101 E. Coliseum Blvd.
Fort Wayne, Indiana 46805

Ball State University

New Faculty. The Department of Mathematical Sciences welcomes **Patrick Eggleton**. Patrick served as President of ICTM, has previously taught at Huntington University for 8 years, and most recently taught at a school for the children of missionaries in Papua New Guinea. His most recently published article provides observations regarding classroom assessment practices. Patrick's brings valuable experience with instructing learners from elementary through college ages.

New Graduate Programs. A new 15-credit graduate certificate program and a 30-credit masters program in Post-Secondary Foundational Mathematics Teaching are designed for potential or practicing community college instructors. The programs are awaiting final approval, but students are already taking classes. A new course, Quantitative Reasoning for Teachers, focuses on interpreting and using quantitative information in authentic contexts, representing quantitative information with mathematical models, and using quantitative information to analyze and construct written arguments. It also includes explorations of pedagogical issues and design of teaching materials for the development of quantitative literacy.

IUPUI

African American Curriculum Design. **Dr. Crystal Morton** is currently designing a curriculum for teachers to implement that integrates social studies and mathematics and considers African American students' mathematical thinking and needs to succeed in mathematics, which teachers will use with African American students ages 9-18 during a summer camp on IUPUI's campus.

Urban Teacher Prep. **Dr. Craig Willey** continues work exploring the role of race and Whiteness in urban mathematics teaching and learning. He is actively engaged in designing and implementing a new model of urban teacher preparation, documenting how this model supports youth in partnership schools and maximizes the potential of pre-service teachers to serve students of color. Craig will present his research at the NCTM Regional conference in Indianapolis and at AACTE in Atlanta in March.

NSF Funded Research. A recently funded National Science Foundation grant, Generalizations Across Multiple Mathematical Areas (GAMMA), explores how students make mathematical generalizations. **Dr. Erik Tillema** serves as Co-PI. The grant is part of a larger partnership with Key Learning Community in the Indianapolis Public School system. Erik is working with middle and high school teachers to explore the support of urban students (White and of color) in making meaningful mathematical progress.

Purdue University— North Central

Textbook and Videos. **David Feikes** and his co-authors have completed a significant revision to *Connecting Mathematics for Elementary Teachers* (2008). Titled *Children's Mathematical Learning (CML)*, the text is designed for mathematics content, mathematics methods, and graduate mathematics education courses for elementary teachers. It focuses on how children learn mathematics, includes every Common Core Mathematics Standard for grades K-6 in the context of how children learn mathematics, and is linked to 61 free videos on how children learn math. The videos can be accessed at WWW.CMLProject.com using the password "cmlvideos." A free pdf copy of the text may be obtained via e-mail at dfiekes@pnc.edu.

Review Materials for Math CORE Exam. **David Feikes** has developed a math test and answer key for the Elementary Education Math CORE test based upon the Pearson App that can be purchased from Pearson. If interested, contact him at dfiekes@pnc.edu.

Campus updates are continued on page eight...

Purdue Speaker Series on Mathematics Education

A series of distinguished speakers will present at Purdue University—West Lafayette to talk about mathematics education. All speakers will present from 4:30-5:30 pm in Beering Hall, Room 212. If you have questions or would like to attend, contact Yan Ping (yxin@purdue.edu).

Dr. Barbara Dougherty	Oct 23	Developing Algebra Readiness in Middles Grades through Questioning Techniques that Support Generalizations.
Dr. John Woodward	Nov 13	Assessment Practices in Mathematics for Students with Disabilities

Purdue University— West Lafayette

2014 Graduates. **Dr. Melike Yigit** has moved home to Turkey to work as a math educator and got married. **Dr. Kevin Berkopes** now serves as the Executive Director of the Mathematics Assistance Center at IUPUI. **Dr. Soo Yeon Shin** has accepted a faculty position in the math department at Minnesota State University. Seven Master's degrees were also awarded in mathematics education.

New PhD Students. **Brooke Max**, an 11-year veteran of high school mathematics teaching, and **Lane Bloome**, a recently finished Master's degree student from Purdue's mathematics department, have begun the PhD program in mathematics education.

Scholarship Recipients. Purdue's Keedy Scholarship recognizes and provides support to students demonstrating promise in the field of mathematics education. 2014 recipients are **Andrew Hoffman**, **Hyunyi Jung**, **Elizabeth Suazo**, and **Melike Yigit**.

Woodrow Wilson Fellows. Purdue's seventh cohort of Woodrow Wilson Stem Goes Rural fellows includes **Andrew Cook**, **India Scott**, and **Drew Stonesifer**. To date, Purdue's SGR program has licensed 20 mathematics teachers.

Math Field Day. The Purdue Math Ed Club will host its annual Math Field Day on Tuesday, Nov.

11th. Approximately 80 students from Tecumseh Middle School will journey to Purdue for the day for a fun and engaging competition in math games and tasks that the club creates. The event helps the children explore the fun side of math while the Purdue students gain experience interacting with middle school students.

New Parents. **Laura Bofferding** and husband David Gleich are the proud parents of Isaac Christopher, born on Friday, September 26, 2014.

University of Indianapolis

Woodrow Wilson Program. The 2013-14 Woodrow Wilson cohort had 100% job placement for math and science fellows. Overall, all five cohorts have retained 80% of fellows within the teaching profession. UIndy has also developed a Woodrow Wilson program in Educational Leadership for preparation of principals. Questions should be directed to John Somers at jsomers@uindy.edu.

Faculty Recognition. **Travis Miller** was recognized with a university Faculty Achievement Award in recognition of his accomplishments in teaching, scholarship and service.

Virtual Community of Practice. John Somers, **Rachael Aming-Attai** and **Jean Lee** have developed a virtual community of practice among pre-service teachers (PSTs), mentor teachers, and UIndy faculty via their 100Kin10 Carnegie Foundation grant. Preliminary findings indicate an increase in PSTs' ability to facilitate rich mathematical experiences that foster conceptual understanding and to apply the Standards for Mathematical Practice (SMPs) and Process Standards for Mathematics (PSMs). Mentor teachers report a much better understanding of implementing the SMPs/PSMs. Findings will be presented at the AMTE, AACTE and TED conferences.

Editor's Note

Congratulations to **Jean Lee** (past HAMTE Secretary) and **Enrique Galindo** (current HAMTE President), who wed on September 13, 2014 in Indianapolis.

Connect with HAMTE!

Find HAMTE online at our website www.hamte.org

Find us on IDOE's Learning Connections: <https://learningconnection.doe.in.gov> (Hoosier Association of Mathematics Teacher Educators Community)

Submit an article to the newsletter, *HAMTE Crossroads*. E-mail your submission to Travis K. Miller, Newsletter Editor, at tmiller@uindy.edu. Join HAMTE! Dues are \$20 (\$10 for students and emeritus faculty) and membership runs October 15 through October 15. (see form on page six)

Attend our annual sessions in October (see page one for details).