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Reflections from the HAMTE President

It was great to see many of you at the HAMTE business meeting in October, and also see that many HAMTE members were presenting at the NCTM Regional conference. I hope to see many of you at the AMTE Affiliates Meeting, Saturday February 14 from 7 to 8 a.m., Look for the HAMTE table.

I would like to congratulate our new HAMTE officers. Sheryl Stump is our new President-Elect and Rachael Kenney our new Treasurer. I would like to thank Past-President Jill Newton, past Treasurer Sue Mau, and outgoing chair of the Nominations and Elections Committee Liz Brown, for the great service they have provided. I am also grateful to HAMTE members who were willing to run during the past election, I know they will continue to work for our organization in many ways.

At the business meeting we awarded the first HAMTE student travel grants. Mina Min was awarded a grant to attend the NCTM Regional Meeting and Mike Daiga was awarded a grant to attend the AMTE annual meeting. We should continue to think about other ways in which our organization can support the professional development of our members.

HAMTE President Enrique Galindo presents Mina Min with a travel grant to NCTM Regional.

Mike Daiga (far right) was the recipient of a HAMTE grant to attend the AMTE conference.



This year HAMTE will collaborate again with the mathematics education faculty at Indiana University Bloomington, Indiana University-Purdue University Indianapolis, Purdue University, and Indiana University-Purdue University Columbus to host the fourth Indiana Mathematics Education Research Symposium (IMERS) on Friday March 27. It would be wonderful to see HAMTE members have an increased presence at this symposium this year.

At the business meeting we agreed to start work on another project. We will be working on a proposal to host the 2017 annual meeting of the North American Chapter of the International Group for the Psychology of Mathematics Education. Several HAMTE members have started work on the proposal led by Jill Newton and Enrique Galindo. We think this is an exciting project for our organization and invite your involvement in any way you can help. Please contact Jill or Enrique if you are interested in serving on one of the committees and task forces we will be forming. You can help no matter how much or how little time you can contribute.

— Enrique Galindo

Attending AMTE 2015?

Wear your HAMTE shirt and join the conversation at the Saturday morning affiliate breakfast in Ballroom C/D. Many HAMTE members are presenting throughout the conference. Click [here](#) for the full program. See you in Orlando!

IMERS 2015

IMERS Call for Proposals

The mathematics education faculty at Indiana University Bloomington, Indiana University-Purdue University Indianapolis, Purdue University, and HAMTE will be hosting the fourth Indiana Mathematics Education Research Symposium on Friday, March 27, 2015 in the Campus Center on the IUPUI campus. The deadline for proposals is **Monday, February 23, 2015**.

We invite proposals that describe research studies at various stages as detailed below. If you have made progress on a project that you presented in last year's symposium, you are encouraged to submit your revised proposal.

Completed Studies (45 minutes: 25 minutes to present + 20 minutes discussion/feedback) *Multimedia equipment will be provided; you will be able to use PowerPoint slides if you wish.*

Proposals should be no more than 1000 words (excluding references) including a description of the purpose of the study, theoretical framework, research design, findings and relevance of the study to mathematics education.

Work-in-progress Studies (40 minutes: 10 minutes for each presenter + 20 minutes for discussion/feedback) *The presentation will occur to everyone in attendance, while the discussion and feedback session will occur in two small groups to maximize individualized feedback to each presenter. A facilitator will be assigned for each discussion and feedback session.*

Proposals should be no more than 500 words (excluding references) including descriptions of the purpose of the study, brief literature review, research questions, methodology (i.e. participants, data sources, methods of analysis) and preliminary findings (if applicable).

Work-under-design Studies (30 minutes: 10 minutes to present + 20 minutes discussion/feedback) *The presentation and discussion will take place in a roundtable format to best facilitate in-depth discussion. A facilitator will be assigned to each presentation to ensure that the discussion flows smoothly and the feedback is constructive. Given the format of these discussions, a projector will not be provided.*

Proposals should be no more than 300 words (excluding references) including rationale for the study, brief literature review, research questions, and proposed methods.

Panel Discussion (45 minutes)

Panel discussions are designed to provide insights from different perspectives on a single issue, idea, or activity in mathematics education. For example, a research group exploring children's conceptions of negative numbers could propose a collection of brief reports that illuminates various dimensions of the project or could describe how different frameworks might be used to explore children's conceptions. Proposals should be no more than 1000 words (excluding references) including a description of the purpose of the session, relevance to mathematics education, potential benefit to attendees, and a brief description of the 45-minute session. At least 15 minutes should be allotted for discussion and questions.

Before submitting your proposal, be sure that it adheres to the guidelines for the session type you have selected. ***All proposals should be written according to APA 6th Edition guidelines and have a complete reference list.***

Submit your proposal electronically (as a Word document) by **Monday, February 23, 2015** to skastber@purdue.edu. The email subject should be **IMERS Proposal**, followed by your last name (example: IMERS Proposal Kastberg)

Use the following format to name your file: **Lastname(lead author)_SessionType_2015** (e.g.:Kastberg_WorkInProgress_2015)

A confirmation email will be sent within 7 days of the proposal submission. Notification of proposal acceptance will be sent out by March 9, 2015

Ball State Undergraduate Mathematics Exchange

The *Ball State Undergraduate Mathematics Exchange* journal is free to all libraries both electronically and in print. This journal, started in 2003, contains articles of interest to all types of mathematics undergraduates (e.g., pure, applied, actuarial, and education). Often the articles are written by undergraduates individually, working in teams, or working with faculty. On occasion articles written solely by faculty are included as long as they are accessible to undergraduates.

The types of articles in a given issue often vary in many respects, but the common theme is that the activities, which are not necessarily original research, go beyond standard classroom material. Typical submissions include senior thesis abstracts, extracurricular projects, reflections on internship experiences, and seminar and colloquium papers. In particular, expository papers are welcome.

Please feel free to view the latest volume, as well as all past volumes, of the *Mathematics Exchange* at <http://www.bsu.edu/libraries/virtualpress/mathexchange/>. Please share this with your students and, when suitable, encourage your students to work on projects that might make nice submissions for this journal. Sometimes these are just extensions of projects done for a class. Although the journal was initially populated entirely by articles authored at Ball State, we are happy that participation from outside BSU has grown. For more information, contact rstankewitz@bsu.edu, Department of Mathematical Sciences, Ball State University.

Nominate a Teacher for a PAEMST

The **Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST)** is the highest honors bestowed by the United States government specifically for K-12 mathematics and science teaching.

Anyone--principals, teachers, parents, students, or members of the general public--may nominate exceptional mathematics or science (including computer science) teachers who are currently teaching grades 7-12 for the 2014-2015 award year. **If you work with outstanding teachers in the field, consider nominating them at www.paemst.org.**

The **Nomination Deadline is April 1, 2015**. This date gives the nominated teacher time to prepare an application prior to the application deadline. The **Application Deadline is May 1, 2015**, for secondary school teachers (grades 7-12). Elementary school teachers (grades K-6) are eligible to apply during the 2015-2016 program year.

Connect with HAMTE!

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

Visit our website: www.hamte.org

Submit an article to the newsletter, *HAMTE Crossroads*. E-mail your submission to Travis K. Miller, Newsletter Editor, at tmiller@uindy.edu. We publish in September, January and May.

Become a member! Send a completed membership form and \$20 (\$10 for students and emeritus faculty) to HAMTE Treasurer Sue Mau, 2101 E. Coliseum Blvd., Fort Wayne, IN 46805. The membership year runs October 15 through October 15 (to coincide with our annual fall meeting).

IDR²eAM Seeks Middle School Teachers

Indiana University-Bloomington. Amy Hackenberg and a team of graduate students are at work on the second year of project IDR²eAM, <http://www.indiana.edu/~idream/>.

IDR²eAM stands for **I**nvestigating **D**ifferentiated Instruction and **R**elationships between **R**ational Number Knowledge and **A**lgebraic Reasoning in **M**iddle School and is funded by the National Science Foundation.

The purposes of this 5-year project are to investigate how to differentiate mathematics instruction for middle school students at different levels of reasoning and to understand how students' rational number knowledge and algebraic reasoning are related. In the first two years of the project we have conducted a series of after school design experiments with cognitively diverse middle school students. In the third through fifth year of the project we seek to study how

to differentiate instruction with middle school teachers, working with them in their classrooms.

Starting this summer 2015, we will be forming a study group of middle school mathematics teachers in Indiana who are interested in learning more about differentiating instruction. **We are currently seeking middle school teachers who want to explore with us!** We are interested in teachers who are open to trying new ideas. We are not that concerned with amount of teaching experience, although being in the study group might be too much for most teachers in their first or second year of teaching. Being in the study group will require exploring student thinking in your classroom and being willing to experiment with new ideas and strategies.

The structure of the IDR²eAM Teacher Study Group is as follows:

- A 4-day professional development workshop in summer 2015.
- Monthly 3-hour meetings during the 2015-2016 school year; participation can be via Skype for those not close to Bloomington.
- Preparation for monthly meetings, which will include readings, examining your students' work, and exploring big ideas in your instruction.
- A commitment to try out some aspect of differentiating instruction in your classroom during the 2015-2016 school year, and to write about your exploration.

Stipends or course credit will be provided to all participating teachers. Interested? Please email Amy Hackenberg at ahackenb@indiana.edu.



HAMTE President Enrique Galindo recognizes the dedication of outgoing board members Jill Newton (left) and Sue Mau (right). Newton served as Past President and Mau served as Treasurer.

New Course for Prospective Elementary School Teachers at IPFW

IPFW is offering a new summer course for prospective elementary school teachers. This summer, students will investigate geometric ideas/concepts through architecture at the Frank Lloyd Wright Studio in Oak Park, Illinois. During the week-long experience, students will investigate Usonian design in housing culminating with their building their design, experience taxicab geometry in downtown Chicago (in the Loop), participate in a stained glass workshop from Wright's design perspective, visit the Robie House on the University of Chicago campus and Unity Temple in Oak Park, participate in a Froebel Block workshop, and take the Wendella Architecture Boat Tour on the Chicago River/Lake Michigan.

We will prepare for the work in Chicago with preliminary work on campus during the week of June 1 – 4 and will complete the work back on campus during June 16 – 26.

Questions? Additional information is available from Dr. Sue Mau at 260-48-6225 or e-mail at maus@ipfw.edu.



HAMTE ELECTION RESULTS

Two board members were elected at the HAMTE business meeting in October.

Rachael Kenney (*at left*), Purdue University—West Lafayette, was elected as the next HAMTE treasurer at the October business meeting.

Sheryl Stump (*at right*), Ball State University, was elected as HAMTE President-Elect.

Creating Algebra Teaching Communities for Hoosiers (CATCH)

*Doris Mohr (USI), Rick Hudson (USI), Jean Lee (UIndy),
Winnie Ko (ISU), Jodi Frost (ISU) & Jill Newton (Purdue)*

Creating Algebra Teaching Communities for Hoosiers (CATCH) is a collaborative Indiana Math and Science Partnership proposal developed by HAMTE members from four universities (i.e., Purdue University, Indiana State University, University of Southern Indiana, and University of Indianapolis) to work with four school districts in Indiana to enrich algebra teaching and learning. Middle school and Algebra I teachers from each district will participate in the professional development experience which will occur over a two-year period (three summers, two school years). University faculty and teacher participants will engage in a summer institute each of the three summers which will be collaborative in nature in an effort to develop richer algebra learning experiences and enhanced achievement in Algebra for students. The proposal is currently under review and the project team is excited to get news sometime soon.

Campus Updates across Indiana...

Indiana University—Bloomington

New doctoral students. IU welcomes four new doctoral students this year. Theodore Savich was a teacher at Ben Davis High School and Rebecca Borowski was an elementary school teacher at Ashley Elementary School in North Carolina. Musa Sadak comes on a scholarship from the Turkish government and Sukanya Suksuk is the recipient of the Royal Thai scholarship to work on her Ph.D. at IU.

Award Recipient. Congratulations to Dr. Dionne Cross for being awarded the K-12 Promotion of Education award for educators with a demonstrated commitment to enhancing STEM career opportunities for women and minorities through promotion of STEM education programs and exemplary teaching and outreach activities at the 2014 Women of Color STEM Conference.

Purdue University—West Lafayette

Sabbatical. Rachael Kenney is on a well-deserved sabbatical this semester.

Grant Awarded. Jill Newton and Hyunyi Jung and colleagues from MSU were awarded a Spencer Grant, *Exploring Opportunities to Learn about Algebraic Modeling, Connections, and Technology in Secondary Teacher Preparation Programs*.

Presentation. Andrew Hoffman presented "Teacher as Learner: Reflections from Pre-service Mathematics Teachers" at the Joint Meetings – it was well received and an opportunity to interact with mathematicians, fostering the kinds of collaboration described in *MET II*.

Researching Reflection. Under the direction of Signe Kastberg; Tuyin An, Elizabeth Suazo, Sue Ellen Richardson, and Melike Yigit are working with two eighth-grade math teachers to understand how they use reflection in their practice as part of a Purdue Synergy Project. These projects are designed and implemented collaboratively by Purdue research teams and P-12 personnel and are conducted in P-12 school districts.

Examining Curriculum Use. Six graduate students have been conducting a study to investigate how undergraduate students in Applied Calculus use their written curriculum. Students' survey responses indicated that, while not many students referenced the textbook, those that did mostly used textbooks for finding worked problems, finding formulas or definitions, and doing homework problems. A majority of students studied alone and did not use the extra resources built into the online homework platform, such as the help videos available for some questions.

New Publication. Hyunyi Jung has a new publication in the *International Journal of Engineering Education*, entitled "Characteristics of Feedback that Influence Student Confidence and Performance during Mathematical Modeling" with co-authors H. Diefes-Dux, A.K. Horvath, K. Rodgers and M.E. Cardella.

Online Masters Course. Jill Newton will be teaching an online Master's course, "Teaching and Learning Algebra and Functions" this summer. Those interested in more information about the course can contact her directly at janewton@purdue.edu.

University of Indianapolis

PBL Certification. Jean Lee has earned PBL certification by the Indiana Collaborative for PBL, which recognizes teachers and school leaders for the quality of their practice in Project Based Learning. The certification process mirrors the National Board Certification process. Jean will be formally recognized by the Indiana State Board of Education and receive a certificate validating the PBL Certification on June 22, 2015. If you are interested in becoming PBL certified, visit <http://www.rose-prism.org/moodle/prism/icpbl/?page=certification>.

Faculty Recognition. Travis Miller was recognized as a finalist for the UIndy Teacher of the Year Award and was also awarded a Faculty Achievement Award for his recent accomplishments in teaching, scholarship and service at the university.

Have news to share from your campus? Send an e-mail to tmiller@uindy.edu

Don't forget! This year is "the" Pi Day of our lives! Also called "ultimate pi day" or "super pi day," the last two digits of the year 2015 provide two more place values in the decimal expansion of pi. So plan an extra-special 3.14.15 celebration!