



Mathachusetts

Official Newsletter of MASSMATE

Massachusetts Mathematics Association of Teacher Educators

Affiliate of the Association of Mathematics Teacher Educators

Spring 2013

Volume 7, Issue 2

Message from the President : Paula Sennett CCSS—Thinking about the Transition

The days are getting longer and one might even dare to look forward to spring. Not only is there more light outside, but more light is being shed on the expectations for the implementation and assessment of the Common Core State Standards—The Massachusetts Mathematics Curriculum Framework.

On the positive side, the fact that these Standards are a national initiative means that there are resources available to us from all over the country. States are posting transition plans and sample formative and summative tasks on their websites. Sample tasks are also posted on the PARCC and Smarter Balanced Assessment websites. Organizations like the National Council of Teachers of Mathematics are offering workshops and webinars.

It is, however, time consuming to access these sites and search for what best supports us in our roles as supervisors, coaches, and college professors teaching future teachers of mathematics. Unfortunately, there is no easy solution. As I work in school districts throughout the Northeast I see teacher leaders and teachers struggling to realign their curriculum, knowing that there will be gaps to fill over the next few years and that complete alignment prior to the first round of tests is next to impossible. I work in classrooms with teachers who are trying to focus more on the Standards for Mathematics Practice and I see the challenges of trying to get kids to, for example, “Make Sense of Problems and Persevere in Solving Them.” These transitions are not going to be easy and will not happen overnight.

We should all continue to take comfort in knowing that what we are working toward is not a quick fix but a long term initiative and that, with the support of our colleagues and access to the resources that are emerging, we will continue to make positive progress toward the goal of full implementation of the content and practice standards.

One page 5 of this newsletter are some websites that may prove useful to you in your search for support.



College and university instructors of math courses for future elementary math teachers are encouraged to attend the upcoming “Food for Thought” seminar to learn more about the Common Core Mathematics Initiative. See page 4 for more information.

We look forward to seeing you at our annual Conference at Bridgewater State University on May 23, 2013.

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Check out our web-home!

www.MassMATE.net



Webmaster:

webmaster@MassMATE.net



***MassMATE and Bridgewater State University announce
our 2013 conference for Educators of Mathematics
Teachers and Mathematics Teacher Leaders.***

**Teacher Leaders Making it Happen: Bringing the Guiding
Principles and Standards for Mathematical Practice
into Mathematics Classrooms**

Keynote Speaker: Dr. Eric Milou

Rowan University, Glassboro, NJ

May 23, 2013 8:00 a.m.—3:30 p.m.

Conant Science and Mathematics Building and Campus Center

@ Bridgewater State University, Bridgewater MA

As teacher educators, professional development providers, district math specialists, and consultants, our members are regularly involved in supporting teachers as they work to bring the Common Core State Standards alive in their classrooms and with their students. Through this conference we will explore strategies and resources for supporting our teachers' work and recognizing excellence in the classrooms.

Please visit www.MassMATE.net for more information.

Registration:

Early Bird Deadline April 26th, 2013 \$50.00

Full Price Deadline May 17th, 2013 \$60.00

The last 3 conferences filled early and we had to close registration. Register early and don't miss it!

Registration Fee includes

- ✓ MassMATE Annual Membership
- ✓ Conference Registration
 - ✓ Breakfast
 - ✓ Lunch

For further information e-mail Conference Chair Polina Sabinin: Conference@MassMATE.net

A Brief (and Bitter) Taste of Day to Day Life for English Language Learners

Submitted by Marie Zhang

When I walked into my Teaching Math in Urban Schools class that fateful afternoon, soy vanilla latte in one hand, backpack in the other, I was ready to go. I was well caffeinated and had carefully read and annotated that week's assigned readings. Three more hours and I'd be done with classes for the day. When I caught Professor S' eye, she smiled. "¡Hola! ¿Cómo estás?" I cocked my head. Strange. I reflected her unconventional greeting with the only bit of Spanish I knew, "Hola! ¡Muy bien!"

When the clock hit 4:00 p.m. Professor S started class. "Hoy vamos a aprender division de fracciones. ¿Están emocionados?" Without warning, we found ourselves immersed in a Sheltered Spanish math lesson. We gave each other blank stares. What was going on? Amusement at the novelty of the experience quickly devolved into frustration as we tried to keep up. We made out that she was talking about the partitive and quotative interpretations of division. The slightly nuanced vocabulary differences, however, made little sense to me. No matter how attentively I listened and how slowly Professor S talked I could only make out twenty percent of what she said at best.

My classmates and I, all pre-service secondary math teachers, breathed a sigh of relief when the familiar sound of English once again streamed out of Professor S' mouth at the end of the lesson. Chatter broke out. "What just happened?" "I'm glad that's over." "I wanted to pull my hair out." My stomach sank as it slowly dawned on me that what I had just experienced for a brief forty minutes was what English Language Learners (ELLs) experience all day, every day. If we, mathematically inclined pre-service teachers who were at the very least proficient at math, had reached our breaking point after forty minutes, what must our ELLs be feeling?



Professor S then led us in a discussion about the importance of engaging ELLs in mathematical discourse and strategies to make that possible. Creating a classroom culture in which everyone participates in mathematical discourse provides opportunities for all students to learn math, clarify misunderstandings, and practice their English. Other strategies which we discussed included using multiple representations and simplifying the language used in class, including word problems, without reducing the cognitive demand. These are strategies that benefit all students, but are of particular importance for ELLs.

As we debriefed, my classmates and I discussed how learning a new language was an incredible challenge and that learning a new subject in a new language was simply overwhelming, even with helpful strategies in place. I couldn't help but marvel at the resilience of ELLs.

The most important lesson I learned through this experience was that ELL students *Can* learn and do meaningful math and that it is up to the teacher to provide opportunities for them to do so despite the language barrier.

Through this sheltered Spanish math lesson, I realized the importance of empathy when working with English Language Learners. As educators, we need to understand the unique challenges that ELL's face, to realize how demoralizing it often is to be in their shoes, to encourage them, and to have proper scaffolds in place to help them as they take steps towards mastering both English and math.

As the number of English Language Learners in our schools increases, the need to be cognizant of their unique struggles and to know how to properly scaffold their learning is becoming more and more prevalent. I believe that every educator should experience a sheltered language class in a language that they are unfamiliar with in order to be able to truly develop this empathy.

Marie Zhang is a pre-service mathematics teacher. She hopes to find a position in a middle school where she can make connections with immigrant students and help them succeed.

Math Challenges for Preservice Teachers!

Problem Solving:

- 1) Given n points drawn randomly on the circumference of a circle, what is the probability they will all be within any common semicircle?
- 2) A sugar cube and an ant are on opposite corners of a cube. The ant moves at random from one corner to another along the edges only. What is the expected number of turns before the ant reaches the sugar cube?
- 3) Use exactly four 4's to form every integer from 0 to 50, using only the operators $+$, $-$, \times , $/$, $()$ (brackets) x^2 (square), and $!$ (factorial).

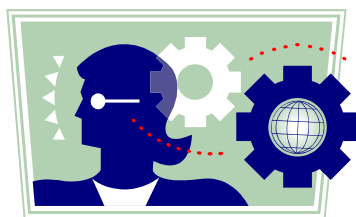
Submit your or your students' math challenges to Newsletter@MassMATE.net and have a chance of being published in the next edition of *Mathachusetts*!



"Food for Thought" MassMATE Dinner Workshop

MassMATE is hosting a session dedicated to familiarizing all **instructors of math courses for future elementary teachers** with the new Common Core State Standards for Mathematics and their impact on expectations for elementary school teachers.

This will be held on April 10, 2013 in Stoneham, MA



Presenting will be Paula Sennett, President of MassMATE, and Dr. Patricia Emmons, President Elect of MassMATE. Paula has extensive experience as a public school mathematics teacher and administrator and is now a mathematics education consultant. Patty currently teaches at Bridgewater State University. She teaches math courses for both pre service and in service teachers.

After a brief overview of the Standards, participants will engage in activities that model strategies addressing both content and practice. These activities will serve to demonstrate the kinds of strategies that elementary teachers will be expected to use in teaching mathematics to their students.

This event will begin with registration at 3:30 pm. The sessions will run from 4:00 pm to 6:00 pm and will be followed by dinner and time for socialization and collaboration. The fee to attend is \$25.

To register, please go to MassMATE.net and select "Events"

Contribute to Mathachusetts



We value our member's thoughts and contributions! Please consider writing an article for *Mathachusetts*.

Also, let us know of any noteworthy events, projects, or programs occurring in your district or school, so that we may consider including it in *Mathachusetts* or on our website!

Please contact Alejandra Salinas at newsletter@MassMATE.net with your submissions.

Support For Implementing CCSS Math

<http://www.doe.mass.edu/candi/commoncore/>

Massachusetts Curriculum & Instruction support for the CCSS Initiative. This URL will provide links to the following content:

- ◆ Common Core State Standards Implementation Workbook
- ◆ 2011 Frameworks: MCAS Assessment Transition Plan
- ◆ Resources to Support the Transition to the 2011 *Massachusetts Curriculum Framework for Mathematics*

<http://illustrativemathematics.org/>

Illustrative Mathematics provides guidance to states, assessment consortia, testing companies, and curriculum developers by illustrating the range and types of mathematical work that students experience in a faithful implementation of the Common Core State Standards, and by publishing other tools that support implementation of the standards.

<http://ime.math.arizona.edu/progressions/>

The progressions documents explain why standards are sequenced the way they are, point out cognitive difficulties and pedagogical solutions, and give more detail on particularly knotty areas of the mathematics. These draft documents elaborate on the learning expectations for students and provide instructional suggestions.

<http://www.ccsstoolbox.org/>

This site is a resource designed to support districts working to meet the challenge and the opportunity of the new standards. Here you will find tools and instructional materials that help you to better understand and to implement the CCSSM. (Including suggested pacing guides).

<http://www.parcconline.org/classroom>

This section is dedicated to the classroom teacher.

PARCC's goal is to provide guidance and support that will help teachers bring the Common Core State Standards to life in their classrooms. To support educators in their efforts to provide their students with a first class education, PARCC is developing a number of tools and resources aligned to the CCSS and the PARCC assessments. This URL will provide links to the following content:

- ◆ PARCC Model Content Frameworks
- ◆ Professional Learning Modules: Aligning Instructional Materials
- ◆ Item and Task Prototypes
- ◆ Diagnostic Assessments
- ◆ Educator Leader Cadres
- ◆ Professional Learning Modules: PARCC Assessments
- ◆ College-Ready Tools



Membership Report

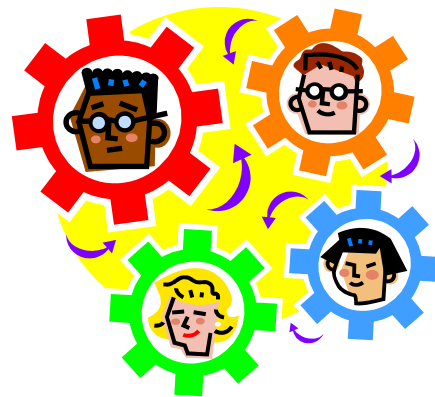
Submitted by Membership Chair, Stan Dick

While the economic climate remains difficult, we are very fortunate to continue to be a strong and growing organization. We owe it all to you! We grow through our members. Our membership is of course bolstered by our conferences, but few of us would come to these events if not for a friend or colleague who was attending as well. So we ask you to talk to those around you who you think would benefit from coming to one of our conferences. Due to a very dedicated board of directors, we got our earliest start ever in preparing for this year's conference, so it promises to be the best yet.

Do you know someone who works with math teachers at the university level? Perhaps someone you collaborate with? It is especially important that we grow this segment of our membership, and it has proven the most difficult group for us to reach. But most importantly we need you. Please save May 23, 2013 for the MassMATE 2013 Conference at Bridgewater State University. Once again, Early-Bird registration is only \$50 and includes annual MassMATE membership, breakfast and lunch.

To register, go to <http://www.massmate.net/events>

With your help, MassMATE will continue to grow and be an important force in teacher education in Massachusetts.



Advertising in Mathachusetts

Mathachusetts will be publishing advertisements related to Mathematics Education. For more information, formats, fee schedules, and to obtain an application, please contact us at sponsor@MassMATE.net

Please note that by publishing an advertisement, MassMATE does not imply endorsement of the advertised product or the company.

Upcoming Conferences

✓ ATMIM Spring Conference

Association of Teachers of Mathematics in Massachusetts
March 23, 2013
Assabet Valley Regional Technical High School
www.atmim.wildapricot.org

✓ NCSM Annual Meeting

National Council of Supervisors of Mathematics
April 15-17, 2013
Denver, CO
www.MathEdLeadership.org

✓ NCTM Annual Meeting and Exposition

National Council of Teachers of Mathematics
April 17-20, 2013
Denver, CO
www.nctm.org

✓ AERA Annual Meeting

American Education Research Association
April 27-May 1, 2013
San Francisco, CA
www.aera.net

✓ MCA 2013

Mathematical Congress of the Americas
August 5-9, 2013
Guanajuato, Mexico
www.MCA2013.org

✓ ATMNE Fall Conference

Association of Teachers of Mathematics in New England
October 24 and 25, 2013
Killington, VT
www.atmne.net

✓ PMENA Annual Meeting

Psychology of Mathematics Education—North America
November 14-17, 2013
Chicago, IL
www.pmena.org

✓ AMTE Annual Meeting

Association of Mathematics Teacher Educators
February 6-8, 2014
Irvine, CA
www.amte.net



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MASSMATE's Purposes and Goals


The Massachusetts Mathematics Association of Teacher Educators (MassMATE) is a nonprofit organization whose purpose is to provide a forum for mathematics teacher educators to communicate with each other and collaborate with other groups interested in the teaching of mathematics in the state of Massachusetts. Specifically, the goals of MassMATE are to:


- promote **leadership** among mathematics teacher educators;
- serve as a **forum** for ideas and resources in mathematics teacher education;
- encourage **research** related to mathematics teacher education;
- promote quality **undergraduate** and **graduate** programs in mathematics education;
- encourage and support professional development programs for **in-service** teachers;
- encourage and support professional development programs for postsecondary **faculty** involved in mathematics education;
- facilitate **communication and collaboration** among **professionals** involved in mathematics education and mathematics teacher education at all levels;
- facilitate **communication and collaboration** among members of educational **administrative** units, such as departments of mathematics and departments of education;
- coordinate activities and work collaboratively with **other associations** and organizations concerned with the preparation and professional development of mathematics teachers;
- work cooperatively with the **federal and state** agencies to enhance the mathematical, pedagogical, and clinical **preparation of teachers** of mathematics at all levels with respect to criteria for credentialing and licensing teachers in Massachusetts.




Share these with a colleague and have them join MassMATE today!


Useful Links:


 Massachusetts Mathematics Association of Teacher Educators (MassMATE)
www.MassMATE.net


 Association of Mathematics Teacher Educators (AMTE)
www.AMTE.net

 Association of Teachers of Mathematics in Massachusetts (ATMIM)
www.ATMIM.org


 National Council of Supervisors in Mathematics (NCSM)
www.mathedleadership.org


 National Council of Teachers of Mathematics (NCTM)
www.NCTM.org

 Massachusetts Department of Elementary and Secondary Education Professional Development
www.doe.mass.edu/pd

 National Council on Teacher Quality (NCTQ)
www.NCTQ.org

 MathForum
www.MathForum.org

 Association of Teachers of Mathematics of New England (ATMNE) www.ATMNE.org

 Triangle Coalition for Science and Technology Education
Triangle Coalition Electronic Bulletin (TCEB)
www.triangle-coalition.org