



Mathachusetts

Official Newsletter of MASSMATE

Massachusetts Mathematics Association of Teacher Educators

Affiliate of the Association of Mathematics Teacher Educators

Fall 2010

Volume 5, Issue 1

Message from the President : Polina Sabinin

Doing more with less!

Special points of interest:

President's message	1
MassMATE Reception.....	1
Things I've learned over the years	2
Upcoming Conferences	3
Current Calls for Proposals	3
Useful Links	3
Membership Report	4
Treasurer's Report	4
Professional Development	5
Contribute to <i>Mathachusetts</i>	5
Exhibiting & advertising	6
Board of Directors.....	6
MassMATE Purposes & Goals	6

As educators, we strive to do more: more for our students, more for our schools, more for our communities, more for our own growth as educators. Doing more is an integral part of the way we work and live!

We know that money is tight during these economically difficult times. But that does not stifle our resolve to do more. We fill the gaps resulting from lower funding for coaches and subject and resource teachers. With fewer professional development opportunities, classroom resources, educational technology, and instructional materials, we are the ones our teachers look to for support. What do we say? What do we do?

Creative and dedicated, our members have each found ways to cope during these times of shortages. So, let's do what we do best—let's share and teach each other about our experiences and triumphs!

Doing more with less! is MassMATE's overarching theme for the year: in newsletters, on the website, and for our fifth annual symposium. We hope to create a forum where our members can find and share ideas about how to do more with less. We invite all teacher educators to share their victories (big and small), untapped funding resources, low cost yet effective instructional materials, and educational technology!

If you have an experience you would like to share, consider writing a short article for *Mathachusetts* or submitting a proposal to speak at our 2011 symposium! If you know of a good resource, send us a link so that we can spread the word.

We look forward to hearing about your successes!

Remember, it's all about the kids!



Calling All Mathematics Teacher Educators

Are you attending the ATMNE Conference in Nashua, NH?

If so, please join us at the **MassMATE Reception**

co-sponsored by

The Algebra Game

(The Math Studio, Inc.)

Didax Educational Products



November 8th at 6:00 pm - Balsam Room - Radisson Hotel

Dessert, beverages, and give-aways!!!

Things I've Learned Over the Years: Free and Powerful!

Submitted by Dr. Carol R. Findell, Boston University

Here are three major things I have learned over my long career as a teacher-educator: We need to 1) help raise teacher-expectations, 2) provide more good problems, and 3) listen to our students.

Help raise teacher-expectations

Of all the things that hold back teachers from helping all students learn mathematics, I think the greatest is that we don't help teachers understand how much these students are capable of learning. Low expectations lead to low performance. If teachers really believe their students can learn, they can help these students achieve almost anything. We, as teacher educators, need to show teachers the results of high expectations on student learning. Teachers need to know how to ask questions that show how much the kids already know and then ask follow-up questions that push students to higher levels. This is not an easy task, and this brings us to the next big idea, that we need examples of good problems and questioning sequences.

Provide more good problems

The problems we need teach concepts by asking questions that start easy but keep increasing in difficulty. We can help teachers rewrite existing questions so that they start with simple computations that all give the same type of answer (such as odd plus odd gives even.) Then ask the kids if they notice anything about the answers. If

they do not notice anything, then you know they need to go back to learn about the concept (even and odd numbers). If they do notice something (all the sums are even), then you ask if this will always happen. Let students discuss this among themselves, and then report as groups on what they found. These discussions can help you find out what the students know, and what you need to do to take them further.

Listen to students

We listen to student as they work together and phrase and rephrase arguments to explain what they know. Mathematics vocabulary can be difficult, and we need to help teachers see that understanding often comes before students have the correct vocabulary to explain what they know. Good classroom discourse helps the whole class improve their understanding of mathematics terminology. As teachers, we must repeat what students say and help them rephrase so we all are using the terms in the same way. This is not an easy task, but can be learned, and we as teacher-educators need to make sure we are helping pre- and in-service teachers learn how to do this.

I believe that these three things should be a part of every professional development program for teachers. We need to be sure that we are modeling these behaviors as we train teachers and provide professional development programs.

KATHY RICHARDSON'S

ASSESSING MATH CONCEPTS

NOW AVAILABLE *for the WEB!*



for K-3

Assessing Math Concepts is a comprehensive formative assessment to enable teachers to truly target their instruction, ideal for RTI initiatives.

for a complete tour

of AMC Anywhere Web,
please visit
www.didax.com/kathyrichardson.



(800) 458-0024
www.didax.com

Mathachusetts

Upcoming Conferences:

- | | | |
|--|--|---|
| <p>✦ NCSM Fall Regional Seminars
Examining and Implementing the Common Core Standards
Oct 6, 2010 in Denver, CO,
Oct 13, 2010 in Baltimore, MD
Oct 27, 2010 in New Orleans, LA
www.MathEdLeadership.org</p> | <p>✦ AMTE 2011 Annual Conference
The Association of Mathematics Teacher Educators
January 27 - 29, 2011
Irvine, CA
www.AMTE.net</p> | <p>✦ AMS 2010 Spring Eastern Sectional Meeting
American Mathematical Society
April 9–10, 2011
Worcester, MA
www.AMS.org</p> |
| <p>✦ NCTM Regional Meetings
National Council of Teachers of Mathematics
Denver, CO: Oct. 6-8, 2010
Baltimore, MD: Oct. 13-15, 2010
New Orleans, LA: Oct. 27-29, 2010
www.NCTM.org/regionals.aspx</p> | <p>✦ ATE 2011 Annual Meeting
Association to Teacher Educators
Theme: Re-igniting the Passion and Purpose for Teaching
February 12-16, 2011
Orlando, Florida
www.AMTE.net</p> | <p>✦ NCSM Annual Meeting
National Council of Supervisors of Mathematics
Theme: On Track for Student Success: Mathematics Leaders Making a Difference
April 11-13, 2011
Indianapolis, IN
www.MathEdLeadership.org</p> |
| <p>✦ ATMNE 2010 Conference
Association of Teachers of Mathematics of New England
Theme: Quantitative Literacy
November 8-9, 2010
Nashua, NH
www.ATMNE.net</p> | <p>✦ T³ International Conference
Texas Instruments International Conference
February 25-27, 2011
San Antonio, TX
www.education.ti.com</p> | <p>✦ NCTM Annual Meeting & Exposition
National Council of Teachers of Mathematics
Theme: Geometry: Constructing and Transforming Perspectives
April 13-16, 2011
Indianapolis, IN
www.NCTM.org/meetings</p> |
| <p>✦ AMS & MAA Joint Mathematics Meeting
American Mathematical Society & Mathematical Association of America
January 6 - 9, 2011
New Orleans, LA
www.ams.org/meetings/national/national</p> | <p>✦ AERA Annual Meeting
American Educational Research Association
Theme: Inciting the Social Imagination: Education Research for the Public Good
April 8-12, 2011
New Orleans, LA
www.AERA.net</p> | <p>✦ MASSMATE Symposium
Theme: Doing more with less
TBA
www.MassMATE.net</p> |



Current Calls for Proposals:

- | | | |
|--|--|--|
| <p>✦ February 1—May 1, 2011
NCTM 2012 Annual Meeting
National Council of Teachers of Mathematics
www.NCTM.org/conferences</p> | <p>✦ Now — November 1, 2010
NCTM 2011 Regional Conferences
National Council of Teachers of Mathematics
www.NCTM.org/conferences</p> | <p>✦ Now — February 15, 2011
AMS 2011 Spring Eastern Sectional Meeting
American Mathematical Society
www.AMS.org</p> |
|--|--|--|

Useful Links:

- | | | |
|---|---|--|
| <p>🔗 Massachusetts Mathematics Association of Teacher Educators (MASSMATE)
www.MassMATE.net</p> | <p>🔗 National Council of Supervisors in Mathematics (NCSM)
www.mathedleadership.org</p> | <p>🔗 Triangle Coalition for Science and Technology Education
Triangle Coalition Electronic Bulletin (TCEB)
www.triangle-coalition.org</p> |
| <p>🔗 Association of Mathematics Teacher Educators (AMTE)
www.AMTE.net</p> | <p>🔗 National Council of Teachers of Mathematics (NCTM)
www.NCTM.org</p> | <p>🔗 Education Development Center (EDC)
www.edc.org</p> |
| <p>🔗 Association of Teachers of Mathematics of New England (ATMNE)
www.ATMNE.org</p> | <p>🔗 Massachusetts Department of Elementary and Secondary Education Professional Development
www.doe.mass.edu/pd</p> | <p>🔗 Salem State Collaborative Project for Mathematics, Science, and Interdisciplinary Education (CPMSIE)
www.rsimons.org/cpmsiemay2009/</p> |
| <p>🔗 Association of Teachers of Mathematics in Massachusetts (ATMIM)
www.ATMIM.org</p> | <p>🔗 National Council on Teacher Quality (NCTQ)
www.NCTQ.org</p> | <p>🔗 Mathematics and Computer Science (MACS) Collaborative at Bridgewater State College
www.bridgew.edu/MathCS/MACSCollaborative.cfm</p> |
| <p>🔗 MathForum
www.MathForum.org</p> | | |

The Algebra Game

"What was amazing to me was the ease with which you differentiated the instruction with each group. Tiered assignments and activities are difficult to design and yours (using the Algebra Game decks) were wonderful."

Deb Miffin, Gifted Resource Teacher, Norfolk, VA

"The Quadratic Equation cards are an awesome addition to my classroom! To see students enthusiastically pairing graphs with their roots or factors, or matching sets of point pairs to equations, is wonderful. You know true learning is taking place when students get their hands on quadratic equations and really work with them, manipulating and comparing them, securing their understanding of these equations."

Cindy Penner, Cheraw Schools, La Junta, CO

"Just a quick note to let you know that I used the Algebra cards yesterday for a student who couldn't understand the concept of slope and the $y_2 - y_1$ over $x_2 - x_1$ concept. Another student and the two of us played fish with the slope and graph cards and that format made the one student feel relaxed and 'get it'. He felt that he had a breakthrough and was able to pass a test after one session with the cards! Another teacher also played fish with the cards, and the kids in her class felt that they were more knowledgeable. Thank you!!!!"

Lisa Swazey, Sped, Sandborn High, NH

"I could see students who struggled with algebra make connections between linear equations and their graphs – finally!"

Kelley Hunter, Windsor Middle School, CA

"I was very impressed with seeing the use of these cards by college students in a developmental algebra class. The repetition of activities of classifying and verbalizing classifications, or concepts, impacted their ability to connect the components of various representations of linear equations."

Mary Anne Lee, Professor Mathematics and Statistics Department Minnesota State University, Mankato, MN

"I used the Algebra Game with an 8th grade class for review of linear functions. They were excited with the challenge and asked if they could play it again the following week! I have also used the Algebra Game in Professional Development sessions with teachers as a 'Warm-Up' activity. Combining Linear and Quadratic decks was an interesting way to start discussions among teachers of different grade levels. I distributed four of the cards from one deck, had teachers find their matches and then teachers found the matching graph."

Neelia Jackson, Math Coach, Boston, MA

The Math Studio, Inc.

www.mathstudio.com/product.html



Membership Report

Submitted by
Stan Dick, Membership Chair

Once again this year, we included a new annual membership or a year-long membership extension with each registration for the annual symposium. We were fortunate to have very strong participation in the conference this year, even in this persistently difficult economy. As a result our membership grew from under 100 members to about 170 members. Members also have an option of extending membership for a year for a fee of \$20.00 (\$10.00 for students or retired members), whether or not they attended a past conference.

We continue to draw members from all areas and levels of math teacher education, with the principals and leaders of math teacher education groups comprising our largest and fastest growing sector. Our ranks include Professors and Students in Graduate Colleges of Education and Mathematics Departments; Chairs of Math Departments; K-12 Principals, Program Directors, Center Directors, Coordinators, Teachers, Lead Teachers, Title I Teachers, Developmental Specialists, Coaches and Coach Coordinators; District and Department Mathematics Specialists; Curriculum Specialists and Directors; Professional Development Providers and Targeted Math Assistance Coordinators.

MassMATE membership provides opportunities for finding and connecting with other teacher educators, through our newsletters, website, and symposia. MassMATE will host its fifth annual symposium this summer. The theme of this year's symposium is "Doing more with less". Stay tuned for the date!

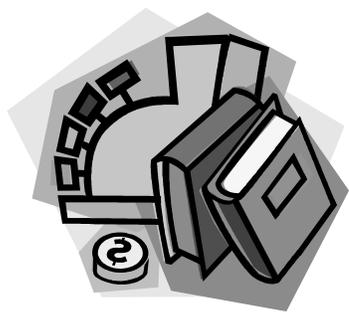
Treasurer's Report

Submitted by James Kearns, Treasurer

Thanks to your participation in the spring MassMATE conference and generous hosting by Roger Williams University, we were able to bolster our coffers to \$4,854.

We have big plans for how to use this money to improve our services to our members including hosting a reception at the ATMNE conference in

Nashua, NH and relocating our conference to a larger venue. We are also working on a listserv to facilitate more communication between mathematics teacher educators.



Mathematics and Computer Science Collaborative (MACS) at Bridgewater State College

The Mathematics and Computer Science (MACS) Collaborative at Bridgewater State College has a proud twenty-two year history of providing meaningful professional development for area mathematics educators. The Collaborative's goal is to provide opportunities for teachers to see the "big picture" of improved mathematics teaching and learning through experiences that broaden and deepen their own understanding of mathematics concepts and effective pedagogy. Each year, MACS develops a series of workshops based on a carefully selected and relevant theme. This year's theme is *All-Gebra - Preparing All Students for Algebra*.

Sessions at four grade spans (PreK-3, 4-6, 7-8, or 9-12) are being offered for each seminar. Educators at any grade level may prefer to select the four sequential sessions titled *The Use of Interactive Software with any White Surface*. In this four-part series of workshops educators

will learn how Interactive software may be used as an effective teaching and learning tool, even without access to hardware such as a Smart Board. Calculators may be used during the sessions; please bring your own grade appropriate calculator.

Participants will be engaged in activities that will enhance their own understanding of each session topic. The instruction will model pedagogy that can be used to develop students' proficiency with the mathematics.

Seminar Dates:

Seminar 1 - Thursday, November 4, 2010

Seminar 2 - Thursday, January 13, 2011

Seminar 3 - Thursday, March 10, 2011

Seminar 4 - Thursday, April 14, 2011



For additional program and registration information, please visit the MACS website at: <http://www.bridgew.edu/MathCS/MACSCollaborative.cfm>.

Math Masters

Are you passionate about teaching mathematics?

Do you want to earn a preliminary, initial or professional license in elementary, middle, or high school mathematics?

Are you considering becoming a Teacher Leader, Math Coach, Math Specialist, or Curriculum Director?

Teachers²¹ & Simmons College Present

Second Cohort of

Master's Program in Mathematics Education

This Program will Provide:

- Quality instructors with extensive classroom experience
- Knowledge of math content and mathematical pedagogy
 - Inquiry-based instruction
- Research-based strategies to use in classrooms today
 - Infusion of 21st century skills

Invest in a two-year program in a field that needs highly qualified teachers. Become a leader in Mathematics Education- Grades 1-6, 5-8, or 9-12

All classes will be held at the Foxborough Public Schools

Price per course is \$1,250
Does not include application fee of \$35

Contribute to Mathachusetts: Editor's Note

Submitted by
Cathy Draper, *Mathachusetts* Editor

The ever present request for teacher's to do more with less hasn't gone away in the four decades plus that I have been involved in education.

This year's issues of *Mathachusetts* will address how we can continue doing more with less with helpful suggestions that have stood the test of time. We are asking our members to send in their own time-tested ideas that cost little or nothing and yield grand results. Tell us your success stories. No double bind studies required, just your successes and how you know they worked.

Several articles are in this issue to start your thinking. We are ready to hear from all of you! Send in your stories in .doc format with your name, email address, and teaching institution to cdraiper@mathstudio.com or newsletter@MassMATE.net.



Board of Directors of MASSMATE:

President:

Polina Sabinin
president@MassMATE.net

President—Elect:

Paula Sennett
symposium@MassMATE.net

Secretary:

Patty Emmons
secretary@MassMATE.net

Treasurer:

James Kearns
treasurer@MassMATE.net

Membership:

Stan Dick
membership@MassMATE.net

Newsletter Chair:

Cathy Draper
newsletter@MassMATE.net

Symposium:

Jenny Tsankova
pastpresident@MassMATE.net

K-12 Liaison:

Ralph Paine
K12liaison@MassMATE.net

Nomination/Election:

Anne M. Collins
nominations@MassMATE.net

Members at Large:

Nancy Anderson
nanderson@MassMATE.net

Srdjan Divac
sdivac@MassMATE.net

Fred Souza
fsouza@MassMATE.net

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!

Advertising in Mathachusetts

Mathachusetts publishes 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.

Check out our web-home!

www.MASSMATE.net



Webmaster: Katie Thompson

webmaster@MassMATE.net