Fall 2007 Volume 17, Issue 1

Connections



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Association of
Mathematics Teacher
Educators
http://www.amte.net

President's Column

Collaboration and Connections Jennifer M. Bay-Williams, University of Louisville

In this third President's Column I share some recent and important AMTE collaborations and connections. As you may recall, in my first column, I highlighted events over the history of AMTE, describing AMTE's growing presence and initiatives. Most recently, I shared our current committee and task force projects. In just a glance at that column, one can see how many members are committed to helping AMTE be the go-to organization for Mathematics Teacher Education. In fact, as AMTE has gained visibility and membership, our opportunities to collaborate and connect with other important initiatives have also expanded. As you read and have other ideas of how AMTE can be involved, please share those ideas with your AMTE Board members.

Park City Mathematics Institute

This summer I was invited to attend the Institute for Advanced Study (IAS)/Park City Mathematics Institute (PCMI). I had heard a number of impressive things about this institute, but was still taken aback when I stepped into the van filled with undergraduate math majors and European graduate students, to take us from Salt Lake City to Park City. Their excited conversation centered on studying math for three weeks (and Harry Potter's new book). I was so energized by their enthusiasm; I couldn't help but think what a great opportunity this would be for future math teachers. The next few days were filled with sessions learning about mathematics, discussing math leadership, and attending mathematics research sessions. I saw groups of mathematicians sitting informally around tables talking about mathematics and discussing the teaching of mathematics. I heard high school math teachers sharing about how they approach the teaching of probability. This

setting, and the setup of the institute, fostered opportunities for thinking and developing one's own research and teaching.

As a result of that visit, AMTE members Johnny Lott, Gail Burrill, Jim King and I were able to brainstorm about how such a forum could benefit AMTE members and our teacher education candidates. The result of these conversations was the development of a proposal that could support such an opportunity. We would like to create an ongoing summer Mathematics Educators Program (MEP) that merges the strengths of PCMI with the expertise of the AMTE, providing a natural melding of interests and a place where ideas can incubate and hatch to address many needs in mathematics education.

Doctoral Conference

In September, I participated in the *Doctoral Programs in Mathematics Education: Progress in the Past Decade.* Hosted in Kansas City, this national conference focused on issues surrounding high quality doctoral programs and provided forums for discussions of ways to strengthen these programs. As AMTE president, I was asked to serve on a panel (moderated by AMTE member **Glenda Lappan**) which explored the issue of accreditation of doctoral programs in mathematics education. Many other AMTE members are participating in this conference.

Doctoral programs prepare the next generation of mathematics teacher educators; therefore it is appropriate that AMTE play an active role in the consideration and design of doctoral programs. As you may know, we have an AMTE/NCTM joint position statement posted on our web site and a longer report titled *Principles to Guide the Design and* (Continued on page 3)

The Association of Mathematics Teacher Educators

http://www.amte.net

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Twelfth Annual AMTE Conference

Tulsa, Oklahoma January 24 - 26, 2008

The Twelfth Annual Conference of the Association of Mathematics Teacher Educators (AMTE) will be held in Tulsa, Oklahoma, from Thursday, January 24, through Saturday, January 26, 2008. Conference sessions will begin after lunch on Thursday afternoon, January 24, 2008. The Opening General Session will begin at 7:00 pm on Thursday evening, followed by a light reception at 8:30 pm.

The conference will be held at the Renaissance Tulsa Hotel and Convention Center. We have a limited block of reduced-price rooms available at \$135/night (single or double occupancy). If you're interested in taking advantage of these rooms, we encourage you to reserve your room soon, either online or by calling the toll-free number below. Be sure to mention the "AMTE Conference" when you call.

Make your reservation by Friday, December 7, 2007 to get our special conference room rates. Please be aware that the conference block may be sold out by this date. It is best to reserve early. Once the room block is full, the hotel will accept reservations at the hotel's prevailing rate and only on a space-available basis.

Renaissance Tulsa Hotel and Convention Center 6808 South 107th East Avenue Tulsa, Oklahoma 74133 USA Phone: 1-918-307-2600 Fax: 1-918-307-2907 Reservations (toll-free): 1-800-264-0165 (mention AMTE)

Note: Conference sessions begin at 1:00 PM on Thursday.

AMTE OPENING GENERAL SESSION

<u>Title</u>: A National Conference on Doctoral Programs in Mathematics Education: Some Things that Happened and Possible Aftermath

Time: 7:00 - 8:30 PM

<u>Speakers</u>: Robert Reys, University of Missouri—Columbia; Diana Lambdin, Indiana University; Glenda Lappan, Michigan State University

<u>Description</u>: A National Conference on Doctoral Programs was held in September, 2007. This session will highlight some reports presented and issues discussed, including pros and cons of accreditation for doctoral programs in mathematics education. <u>To Register</u>: Pre-registration is encouraged in order to plan for attendance. Use the

AMTE Conference Registration Form on page 4, 5.

Connections is published three times a year: fall, spring, and summer. The Editorial Board will consider a wide variety of types of submissions. Regular features include essays addressing each issue's Theory and Practice question, reviews of resources for mathematics teacher educators, and news articles related to mathematics teacher education. Each submission is reviewed by the editorial board for relevance to the AMTE membership and for quality of work. Please direct all comments, questions, or submissions to the editor at lstalling@kennesaw.edu or 770-420-4477.

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President's Column (Continued from page 1)

Implementation of Doctoral Programs in Mathematics Education (available at http://www.amte.net /resources). Bob Reys chaired the task force that created this document and is chairing this conference planning committee.

NCTM Emerging Issues

I have been fortunate to be appointed to the NCTM Emerging Issues Committee, a fascinating committee where we discuss issues receiving attention around the country, political issues, and NCTM's priorities. These discussions suggest opportunities for collaboration between AMTE and NCTM and for AMTE to respond to the larger needs in mathematics education. As an example, it was evident from our summer meeting that there is a significant interest across the country, and in the U.S. Congress, about elementary math specialists or coaches (these terms are used by different people to mean different things). Certainly the preparation of such individuals is of interest to AMTE. In the same way that the Principles to Guide the Design and Implementation of Doctoral Programs in Mathematics Education continues to influence doctoral programs across the country, it may be time for AMTE to consider such a document to guide the preparation of elementary math specialists or coaches. What are your thoughts on this?

Conference Board of the Mathematical Sciences (CBMS)

While we have been a member of CBMS for more than five years, it is worth mentioning what an excellent collaboration this is and that AMTE is sitting at the table with sixteen national mathematicsrelated organizations, including MAA, AMS, ASA, AMATYC, NCTM, NCSM, and Banneker. We exchange reports and publications with each other. During the May meeting, most of the conversations were related to the mathematics preparation of K-16 students and their teachers. Other informal collaborations have emerged from the CBMS. For example, we have recently been exchanging ideas on organizational and budget structures with the American Mathematical Association of Two-Year Colleges (AMATYC) leadership. Two-year colleges are more and more involved in teacher preparation as more students opt for 2+2 models and/or take

some of their mathematics courses at community colleges. We need to be thinking about how we can partner with AMATYC to provide support for these growing programs.

Curriculum Conference

Earlier this year, I was invited to represent AMTE at the Center for the Study of Mathematics Curriculum (CSMC) Conference K-12 Mathematics: What Should Students Learn and When Should They Learn It? I learned many things, but two things in particular have informed my thinking about collaborations and the work of AMTE. First, the American Statistical Association (ASA) has developed an excellent curriculum guide, Guidelines for Assessment and Instruction in Statistics Education (GAISE) Report - A Pre-K-12 Curriculum Framework. The presentations by ASA members impressed me with the fact that we need to have more input and involvement from statisticians in AMTE, as they think differently than mathematicians and mathematics educators about statistics for students and for teachers. Second in a panel discussion, a district mathematics coordinator commented that teacher preparation should help candidates learn how to collaborate and support each other, rather than to design curriculum (e.g., a unit plan), which novices are not in a position to do. Interesting! It made me think about how important it is for AMTE to hear from district leaders and math teacher leaders, some of which is accomplished through our collaborations with NCSM.

Collaboration and Connections

To summarize, AMTE is increasingly being asked to be "at the table." The more we are able to contribute to the national work in mathematics education, the more invitations we will receive. Next, projects are emerging in which AMTE might be involved. If any of the ones mentioned here are of interest to you, I welcome your involvement. Finally, many of these opportunities come to AMTE because our own members are involved in many other projects. If you are involved in another organization, a funded project, or a publication related to teacher education, think how AMTE might be involved.

To summarize, AMTE is increasingly being asked to be "at the table." The more we are able to contribute to the national work in mathematics education, the more invitations we will receive.

AMTE Elections

November 1 Ballot for AMTE elections will be available on http://www.amte.net.

December 15 Deadline for vote submission.



ASSOCIATION OF MATHEMATICS TEACHER EDUCATORS

TWELFTH ANNUAL CONFERENCE

January 24 – 26, 2008 Tulsa, Oklahoma

REGISTRATION FORM

Please note that online registration and payment information is available on the AMTE website: $\frac{\text{http://}}{\text{www.amte.net.}}$

| Name | Position | | | | | |
|---|---|---|--|--|--|--|
| Department | | | | | | |
| Mailing Address | | | | | | |
| City | | | | | | |
| Work Phone () | | | | | | |
| Fax () | E-mail | | | | | |
| Check here if this is a new address Check here if you are a new AMTE m Check here if you would like the inform (accessible by AMTE members only) Check here if you are a speaker. (The Check here if you are attending your fi NOTE: THERE WILL BE NO ONSITE R limited, so please register early. Meals included in the registration fee: Thursday sessions begin at 1:00 Friday: continental breakfast, n Saturday: continental breakfast Special dietary needs: (must be received) If paying by check, please make it paya | mation above to NOT be income deadline for speaker registrated and the conference. REGISTRATION AVAILANT OPM: afternoon break, recent orning break, lunch, afternoning break, and lunch by Dec. 7, 2007) | ration is November 1, 2007.) BLE. Conference registration is eption (dinner is not included) | | | | |
| | | | | | | |
| If paying by credit card, please complete the following information: | | | | | | |
| Type of card (circle one): Vis | sa MasterCard | Discover | | | | |
| Name as it appears on the card: | | | | | | |

Expiration:

Amount to be charged:

Card number:

CONFERENCE FEES

Amounts are listed in US dollars.

| | Early Registration (Postmarked by Nov. 1) | Registration (Postmarked by Dec. 7) | Late Registration (RECEIVED by Jan. 14) | Indicate Amount Paid Below |
|--|--|---|--|----------------------------------|
| Registration and Membership Dues | \$330 | \$405 | \$480 | |
| Member Registration | \$270 | \$345 | \$420 | |
| Non-Member Registration | \$360 | \$435 | \$510 | |
| Full-time Graduate Student Registration and Membership Dues* | \$250 | \$325 | \$400 | |
| Full-time Graduate Student Member Registration* | \$220 | \$295 | \$370 | |
| Opening General Session Thursday, 1/24, 7:00 - 8:30 PM (Dinner is on your own.) | Free Preregistrati- on required | Free Preregistrati- on required | Free Preregistrati- on required | Check here to attend |
| Technology Workshop Thursday, 1/24, 1:30 to 4:30 PM. (Limited to first 40 registrants.) | Free Preregistrati- on required | Free Preregistrati- on required | Free Preregistrati- on required | Check here to attend |
| TOTAL AMOUNT SUBMI | TTED | | | |

*Graduate students need to complete two steps to qualify for reduced registration rates. First, they may register using either the online process or by downloading and printing the registration form from the AMTE website. In addition, a separate form found on the AMTE website must be printed and completed by both the student and the advisor to verify full-time student status. See the AMTE website for details and directions.

| Advisor's signature: | |
|----------------------|--|
| · | |

Note a change to the usual schedule: Conference sessions begin at 1:00 PM on Thursday.

If you prefer to complete this form in hard copy, please mail it to:

AMTE Conference Registration
Gary Martin, AMTE Treasurer, Department of Curriculum and Teaching
Auburn University, 5040 Haley Center, Auburn, AL 36849
334-844-6878
334-844-0124 (fax) martiwg@auburn.edu

AMTE to Continue TE-MAT Reviews of Mathematics Professional Development Materials

David K. Pugalee, University of North Carolina, Charlotte

AMTE has begun the process of reviewing mathematics professional development materials for TE-MAT.

Quality professional development is facilitated through the use of quality professional development materials. TE-MAT (Teacher Education Materials) provides a searchable database of reviews to assist professional development providers in their search for appropriate and effective resources. Iris Weiss, of Horizon Research, Inc., was the principal investigator for this National Science Foundation funded project. The project has developed an online resource supporting professional development for K-12 mathematics and science education. In December 2006, the National Science Teachers Association (NSTA) assumed responsibilities for hosting and managing the project. NSTA will continue to spearhead the review of professional development materials for science. AMTE, through the TE-MAT Committee, has begun the process of reviewing mathematics professional development materials. This resource will be accessible as a professional development complement to NSTA Recommends (http://www.nsta.org/recommends). For additional information, you can also visit http:/ /www.te-mat.org. Future issues of this newsletter will feature recently submitted reviews.

TE-MAT Philosophy. TE-MAT is based on the philosophy that effective professional development requires designers to understand the needs of the targeted audience; to understand what research and practice offer; to address multiple goals within specific contexts and with limited resources; to implement activities aligned to goals; and to monitor and fine tune the professional development program to address goals. The reviews respond to this philosophy by providing details about effective materials for professional development.

The reviews in the TE-MAT database are categorized in multiple ways. Purposes that relate to particular teacher learning needs provide one approach to categorizing the reviews. Such purposes include deepening teachers' content knowledge, understanding student thinking and how students learn; selecting appropriate instructional materials, using appropriate instruction in supporting the learning of all students; and assessing student performance. Other purposes of professional development addressed in the reviews include: understanding national standards; designing and

implementing pre- and in-service professional development that is effective; conducting and using research; exploring school change and systemic reform issues; and evaluating the quality and the outcomes of professional development programs.

TE-MAT Review Process. Reviews submitted through AMTE will follow criteria established through the original project. First, materials reviewed for TE-MAT support the planning and implementation of professional development for mathematics pre-service and in-service teachers. Second, reviewed materials will focus on content, instruction and/or professional development, and have relevance for work with pre-service or inservice teachers. Third, materials will be published and accessible to the general public. The AMTE Committee will receive materials and write reviews with an established format that includes publication and publisher information, a description of the materials, purpose and audience, content and quality, reviewer's ideas for using the material, and comments and cautions.

Topic Descriptors. Descriptors allow materials to be categorized in a way that allows the database to be searched for relevant materials. There are three primary categories for materials. One is Purposes for Professional Development of Mathematics Teachers, which includes: professional development models, national standards, content knowledge, science of learning, classroom methods, systemic reform, research, program assessment, student assessment, selecting instructional materials, and teacher work. A second major category is Issues and Topics for the Classroom; materials are related to administration, technology instructional tools, technology skills, facilities, multiculturalism, problem solving, teaching strategies, special education, curriculum materials, and assessment. The third category is Content Topic Areas, which include general mathematics, number and operation, measurement, pre-algebra and algebra, geometry and spatial sense, functions (including trigonometric and pre-calculus concepts), data analysis and statistics, probability, discrete mathematics, mathematical structures, calculus, and process skills (problem solving, reasoning and proof, communications, connections, and representation).

Sample TE-MAT Review

Bibliographic Data Series: Classroom assessment for school mathematics K-12

Title: Mathematics Assessment

Subtitle: Cases and Discussion Questions for Grades 6-12

Author: William S. Bush. editor.

Copyright Year: c2000 Grade Levels: 6-12 Format Type:

Descriptors: Professional Development: Designing/implementing professional development;

Developing/implementing student assessments

Order from: National Council of Teachers of Mathematics, Inc. (NCTM) 1906 Association Drive,

Reston, VA 20191

Toll free: (703) 620-9840 Fax number: (703) 476-2970 Web address: http://www.nctm.org

E-mail: orders@nctm.org ISBN: 0-87353-482-4 Price per copy: 21.95

Review

Mathematics Assessment: Cases and Discussion Questions for Grades 6-12

Reviewed Date: 5/1/2001

- **I. Description of Materials** This 135-page book presents 16 cases addressing aspects of assessment in mathematics education. These case stories are based in real classrooms representing grades 6-12.
- **II. Purpose and Audience** The purpose of this book is to share "examples, reflections, explanations, and tips [that] are intended to help [readers] explore the role of assessment in reshaping mathematics teaching and learning" (p. vii). The book is intended as "a professional development tool both for teachers who want to change their assessment practices and for teachers who have struggled with changes over the years" (p. 3).
- III. Content and Quality Mathematics Assessment shares sixteen different cases involving the use of non-traditional assessment techniques in middle schools and high schools, written by teachers who tried these methods in their own classrooms, with varying degrees of success. The book begins with an introduction that explains what cases are and their purpose, and continues with various cases that address using new assessment approaches, scoring assessments, and using the results of assessment. Each case concludes with some analysis of the results of the experience. Remarks by students and teachers are frequently included, and many times the teacher who conducted the trials raises questions about what was done, how it should be changed, and whether it was worthwhile. An additional chapter provides guidelines for facilitators using these cases with teachers. The book concludes with a bibliography of readings related to assessment and an index that allows readers to find page numbers where specific issues related to assessment are addressed. The chapter, "Facilitator Guidelines and Notes," provides advice for professional developers using the book and also contains specific information that can guide them through each of the cases detailed in the early chapters. Provocative, open-ended questions are provided, with the notes for each case to help professional developers steer teachers toward learning about appropriate assessment methods. This section gives explicit and thorough advice on how to prepare for case discussions, how to select cases for professional development activities, and how to lead the discussions. Problems that might arise have been anticipated and remedies recommended. The notes for each individual case include a synopsis, a pre-reading activity, the main assessment issues covered, discussion notes, and questions. The materials are clearly written and well organized. The cases reflect important mathematical ideas as well as assessment issues associated with understanding student thinking. Numerous examples of classroom practice including samples of student work give a practical orientation to the stories told by the teachers. The illustrations and graphics are easy to read and of high quality, and tables and bullets help organize key information and ideas. The writing style is informal and promotes reflection through the use of questions throughout

(Continued on p. 9)

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AMTE PRECONFERENCE EVENTS

Several Preconference Events will be held on Thursday, January 24, 2008, at the 2008 AMTE Annual Conference at the Renaissance Tulsa Hotel and Convention Center. Each session requires pre-registration; information is below. Please check http://www.amte.net or contact the organizers for more information. The regular conference sessions will begin at 1:00 PM on Thursday, January 24.

Developing a Research Framework for Mathematics Methods Courses

Organizers: Bob Ronau (bob@louisville.edu) and P. Mark Taylor (pmark@utk.edu)

Time: 8:30 AM-12:00 PM

To Register: E-mail Bob Ronau at bob@louisville.edu.

Session limit: 40 participants.

Working Group for the Mathematical Preparation of Elementary Teachers

Organizers: Frank Lester (lester@indiana.edu) and Tom Bassarear (tbassarre@keene.edu)

Time: 8:30 AM-12:00 PM

To Register: E-mail Frank Lester at lester@indiana.edu.

Session limit: 30 participants.

NCTM'S NCATE Program Reviewer Training Workshop

Organizer: Monique Lynch (mlynch@nctm.org). Sponsored by NCTM.

Time: 9:00 – 11:30 AM

To Register: E-mail nctmncate@nctm.org and indicate that you are interested in attending reviewer training on January 24. There is no charge to attend, but the completion of an application and preregistration for the workshop are required. For more information, see http://www.nctm.org/ncate.aspx.

Session limit: 30 participants.

Each session requires pre-

Using Elementary Math Software to Improve Teacher Effectiveness

Organizer: Terri Reden (treden@plato.com). Sponsored by PLATO Learning

Time: 9:00 AM - 12:00 PM Registration Fee: \$10/person

To Register: E-mail PLATO Learning at scmath@plato.com. The \$10 registration fee includes continental breakfast and subscription to the product. All attendees will receive a one-year subscription to Straight

Curve Mathematics (grades K-6) for use within a teacher education program.

Session limit: 30 participants.

Linking Dynamically Connected Representations and Computer Algebra Systems with the TI-Nspire CAS

Organizer and Presenter: Doug Lapp (lapp1da@cmich.edu). Sponsored by Texas Instruments.

Time: 9:00 AM - 12:00 PM

Registration Fee: None. Refreshments will be provided.

To Register: E-mail Paula Watson at pwatson@ti.com. Please include the phrase "AMTE TI Workshop"

in the subject line of your e-mail. The session includes a free continental breakfast.

Session limit: 40 participants.

Highlighted Session:

Preparing Teachers with a Mathematics Technological Pedagogical Content Knowledge (TPCK)

Organizer: AMTE Technology Committee; Maggie Niess, Chair (niessm@onid.oregonstate.edu)

Time: 1:30-4:30 PM

To Register: Indicate your interest on the AMTE Conference Registration Form (Registration is limited to

40 people.)

Session limit: 40 participants.

preconference registration. See information at right.

AMTE Connections Fall 2007

Affiliate News

Pennsylvania Association of Mathematics Teacher Educators

PAMTE has had a very productive initial year with a current membership of 55 mathematics educators from across the state. The organization held its first annual symposium "Assessing Preservice and Inservice Mathematics Teachers' Competencies" at Shippensburg University in April 2007. The symposium included keynote speakers, roundtable discussions and informal dining opportunities for participants to network and exchange information regarding research, courses, and programs for elementary and secondary mathematics preservice teachers. The day and a half event began with Dr. Ruth Heaton, University of Nebraska, who shared her research on middle school teachers' problem-solving habits of mind. Our Friday keynote speaker was Peg Smith from the University of Pittsburgh who spoke on High-Quality Mathematical Tasks. In all, 16 universities were represented along with five mathematics education doctoral students.

The next PAMTE event will be held in conjunction with the Pennsylvania Council of Teachers of Mathematics (PCTM) in Valley Forge in November 2007. Also, a PAMTE newsletter and monograph are in the works to exchange information, research, and dialogue on issues related to mathematics education.

We are excited at the enthusiasm for the organization and the overwhelming response from members to help plan and organize future PAMTE events. We look forward to future opportunities to meet and network throughout the upcoming year. If you have any questions about PAMTE, feel free to contact Jane Wilburne at jmw41@psu.edu.



New Jersey Establishes AMTE Affiliate!

The New Jersey Association of Mathematics Teacher Educators was established at the NCTM Regional Meeting in Atlantic City in October 2007, where a Constitution and By-laws were ratified.

NJAMTE held its first conference on May 16th at TCNJ. The conference focused on state initiatives and the preparation of middle school mathematics teachers. Approximately 15 members attended the meeting. Liz Uptegrove has set up a basic web page for us at http://faculty.felician.edu/uptegrovee/NJAMTE.html

We are planning an informal dinner and a panel presentation on recruiting mathematics teachers and teacher educators for the NJAMTE annual conference in October.

(Continued from p. 7)

the text. The book raises issues that are consistent with assessment reform as recommended in the NCTM Standards.

IV. Reviewers' Ideas for Using this Material This book was designed specifically as a professional development source for both beginning and experienced teachers to read and discuss various cases in groups with the guidance of a facilitator. Reviewers suggested that short workshops, specific to the grade level of the teachers involved, be devoted to one or more of the cases. Schoolwide study of the materials by all the mathematics teachers could lead to a coordinated and consistent approach to assessment throughout the grades. The specific, step-by-step advice offered in Chapter 4 could help facilitators lead productive discussions in which teachers could analyze the cases and advance their knowledge about assessment.

V. Comments and Cautions One reviewer noted that, because of the strong and varied opinions among educators regarding assessment, professional developers need to be skilled in facilitating productive, rather than argumentative, discussions about this topic. The book provides useful directions for this facilitation that should help professional developers provide appropriate guidance.

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Proposed Changes to AMTE Constitution and By-Laws

AMTE's Constitution Committee consists of Chair Janet Caldwell (Rowan University), Virginia Keen (Wright State University—Lake Campus), Travis Olson (University of Missouri-Columbia), Al Otto (Illinois State University, retired), Ingrid Peterson (University of Kansas), and Sid Rachlin (East Carolina University).

Proposed changes to the AMTE Constitution and By-Laws, along with a brief description of specific changes and rationale for the changes, are posted on the AMTE website. These changes will be voted on at AMTE's January business meeting and then ratified by e-mail ballot in February 2008. The Committee has met and conferred with the Board over the past two years to determine needed changes as described below.

The following items in the Constitution were revised for clarification and consistency with current practice:

- · Goals of AMTE are clarified.
- · Affiliates are now included.
- · Mail ballots may be conducted electronically.
- · Shorter grace period is allowed for paying dues since this is now done electronically.
- · Membership list is no longer maintained by Treasurer.
- The status of non-voting, ex-officio Board members is clarified.
- Term of office for NCTM Representative is designated.
- The Annual Board meeting is now required.

- The definition of a quorum of the Board applies only to voting members.
- Voting for President takes place in oddnumbered years, but term begins in evennumbered years.

The changes described below are proposed to the By-Laws:

- The grace period for membership renewal is deleted.
- The Executive Director position is described.
- Conference Coordinator position is added and described.
- The Advisory Board is deleted, since it has never existed.
- · A new section is added on ex-officio, nonvoting members of the Board.
- The nominations committee no longer validates results of the election under electronic voting.
- · Procedures for modifying Constitution and By-Laws were revised, making it easier to amend the By-Laws.

Please review the suggested changes prior to the January business meeting. Thanks!

Timeline for Constitutional Revision for AMTE

April 2007 Draft changes provided to Board for discussion (modifications and/or approval)
September 1, 2007 Final changes sent to Constitution Committee, including revised goals

October 2007 Board approves/modifies revisions

January 1, 2008 Revisions in final form

January 22-23, 2008 Board approves revisions (last chance)

January 26, 2008 Revisions submitted to membership for approval to be voted on

February 2008 E-mail ballot for approval of revisions

Update of AMTE Online Membership Database

We are in the process of updating our online member database and making it available online to our members. We encourage you to use your AMTE username and password to update this information online. If you would like any of your information made unavailable for viewing by other AMTE members in a password-protected area, please indicate this online or contact Mike Klass (mklass@projects.sdsu.edu) for assistance, including help with your username and password.

Please review the suggested changes to the AMTE Constitution prior to the January business meeting.

AMTE Connections Fall 2007

Project Spotlight:

mod4 Project: Developing Instructional Materials Focused on Mathematical Knowledge for Teaching

Kara Suzuka, Deborah Loewenberg Ball, Hyman Bass

The mod4 Project develops materials for preservice teacher education and inservice professional development that are designed to help teachers develop what we call "mathematical knowledge for teaching," which is the mathematical knowledge, skills, and dispositions needed for and used in the work of teaching. This type of mathematical proficiency goes well beyond the mathematics taught and learned in the school curriculum; it is also not subsumed in the content of advanced mathematics courses. Teaching requires knowing and using mathematics in ways that are specific to managing instruction. For example, teachers need to be able to evaluate alternative ideas and solution methods (whether or not these have been explicitly taught), give mathematically sound and comprehensible explanations, deploy a variety of mathematical representations, and be precise and explicit with mathematical language and practices. Opportunities teachers have to learn mathematics, however, are rarely aimed at connecting that mathematics to the work of teaching or at developing teachers' capacity to know and use mathematics in teaching.

Based on more than a decade of research focused on studying classroom practice to identify the mathematical work of teaching and to analyze the mathematical demands of that work (see, for example, Ball, Hill, & Bass, 2005; and Ball & Cohen, 1999), the mod4 Project is developing thematically coherent sets of instructional activities and problems that create opportunities for teachers to practice the kinds of mathematical thinking, reasoning, problem solving, and communicating used in teaching. The materials utilize classroom

videos, work samples from children and teachers, curriculum excerpts, and other classroom-based artifacts to ground the work in classroom practice. The materials focus on mathematically challenging problems that arise frequently in instruction.

The project is beginning its third year of development work and is actively seeking collaborators to pilot the materials and work on various facets of the research and development. These could be preservice teacher educators – including those who teach methods and content courses for novice teacher – or inservice professional developers who work with elementary teachers, run workshops for practicing teachers, or facilitate study groups and small seminars. More information about the project can be found at http://mod4.soe.umich.edu.

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Featured Mathematics Education Article:
Using Supported Video Exemplars for the
Professional Development
of Preservice Elementary School Teachers
Sylvia Bulgar, Rider University



Abstract: The use of videotaped episodes of elementary mathematics classrooms for professional development is not new. However, without appropriate support, preservice teachers may find it difficult to hone in on the underlying features of the targeted practices displayed in the swift-moving action of the classroom being observed. The focus in this study is to investigate the benefits of including scaffolding supports directly into the software that facilitates the viewing of the videotape episodes to enhance preservice teachers' understanding of the teaching of mathematics. The data indicate that the preservice teachers who used the software product, MathStore, were able to develop significant insight into specific aspects of the teaching and learning process.

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Fall 2007

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