Association of Mathematics Teacher Educators
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Preconference Sessions at the 2012 AMTE Conference

Thursday Morning, February 9, 2012

The following Preconference Sessions will be held on Thursday morning, February 9, 2012, at the 2012 AMTE Annual Conference at the Worthington Renaissance Hotel in Fort Worth, Texas. Each session requires pre-registration. **No onsite registration will be available.**

Session descriptions are provided on the following pages. You may contact the organizers for more information.

Preconference Sessions

Session	Title
1	Connecting and Empowering AMTE Affiliates
2	Elementary Mathematics Specialists: Getting Started and Moving Forward
3	Framing and Analyzing (In)equity and Power in Mathematics Methods II
4	Increasing Professional Development Capacity: Common Challenges and Approaches to Preparing Math Leaders to Facilitate Professional Development Programs
5	NCTM NCATE Program Reviewer Training Workshop
6	Professional Development at a Distance: Designing and Facilitating Online Courses for Inservice Mathematics Teachers
7	Sense Making and Reasoning with Technology – An Interactive Panel
8	Teacher Discourse Moves in Context
9	Teaching Mathematics for Elementary Teachers Courses in Light of the Common Core Standards

Session Descriptions

1. Connecting and Empowering AMTE Affiliates

Sponsor: AMTE's Affiliate Connections Committee
Lead Presenter: Megan Burton, University of South Carolina, burton3@mailbox.sc.edu
Presenters: Brian Townsend, University of Northern Iowa; Tammy Hanebrink, Southeast Missouri State University; Carol Fry Bohlin, California State University – Fresno; Stephanie Smith, Georgia State University; Christine Walker, Utah Valley University

Time: 8:30 – 11:30 a.m.
Session limit: 100 participants

Description: Information on initiating and growing an AMTE affiliate will be discussed during this interactive session. The session will provide a forum for participants and AMTE Affiliate Connections Committee members to share useful information about successful initiatives and lessons learned. Time will be provided for affiliate leaders to discuss issues, as well as to share and generate ideas.

Session goals:
- Support the growth of affiliates and their membership;
- Identify the needs of affiliates;
- Provide a venue for sharing ideas among affiliate leaders; and
- Increase communication between the national organization and the affiliates.

To Register: Indicate your interest on the AMTE Conference Registration Form.

2. Elementary Mathematics Specialists: Getting Started and Moving Forward

This session will have two parts.
Part I: Elementary Mathematics Specialists (EMS) Certification Programs: Challenges & Solutions
Organizer: Maggie McGatha, University of Louisville, maggie.mcgatha@louisville.edu
Lead Presenter: Nicole Rigelman, Portland State University, rigelman@pdx.edu
Presenters: Skip Fennell, McDaniel College; Terry Goodman, University of Central Missouri

Time: 8:00 – 9:45 a.m.
Session limit: 50 participants

Description: This session will give participants an opportunity to explore programs of study for elementary mathematics specialists. Participants will hear from those who have EMS programs in place. The AMTE EMS Standards will be used as a resource informing course/program development and review. Continental breakfast will be served.

Session goal: The goal of this session is to engage participants in a discussion of appropriate courses/programs to prepare elementary mathematics specialists for the wide range of responsibilities they hold. Participants will have an opportunity to discuss challenges and solutions in developing courses/programs.

Part II: Considering Leadership: Case-Based Activities for Elementary Mathematics Specialists
Sponsor: Elementary Mathematics Specialists and Teacher Leaders Project (ems&tl)
Lead Presenter: Francis (Skip) Fennell, McDaniel College, ffennell@mcdaniel.edu
Presenters: Jon Wray, Howard County, MD Public Schools; Beth Kobett, Stevenson University (MD)

Time: 10:00 – 11:30 a.m.

Session limit: 50 participants

Description: This session will be based on elements of a leadership framework developed by the *Elementary Mathematics Specialists and Teacher Leaders Project.* Participants will discuss a variety of case-based opportunities for elementary mathematics specialists (or those preparing to be mathematics specialists). The case-based opportunities connect to the leadership framework and relate to decisions involving transitioning to the Common Core State Standards.

Session goals:

1. Present the *Elementary Mathematics Specialists and Teacher Leaders Project* (ems&tl) Leadership framework as an organizer for a variety of case-based activities which link aspects of leadership to decisions related to content, pedagogy, and assessment;
2. Examine the following aspects of leadership as defined by the ems&tl Project: adult learners, coaching, navigating relationships, and developing professional learning communities;
3. Provide opportunities for participants to work with the ems&tl leadership framework through the lens of case work, which may assist those preparing courses in leadership (or adapt existing courses) for teachers preparing to be mathematics specialists/instructional leaders;
4. Connect leadership issues and challenges to the work of the specialist, particularly as related to the transition to the Common Core State Standards (CCSS);
5. Review and discuss particular case-based types of activities. These include "blog like" *This Worked* vignettes, mini-cases, and written and on-line modular cases;
6. Discuss the role of leadership as it intersects with issues around mathematical and pedagogical knowledge for specialists and certification programs for specialists; and
7. Provide a forum for participants to discuss challenges they encounter in developing, maintaining, and enhancing courses and certification programs for elementary mathematics specialists/instructional leaders [it is hoped that this forum time could be an 'open-mike' opportunity for open discussion with the possibility of framing opportunities for the ems&tl Project to provide assistance].

To Register: Indicate your interest on the AMTE Conference Registration Form.

3. Framing and Analyzing (In)equity and Power in Mathematics Methods II

Lead Presenters: Rochelle Gutiérrez, University of Illinois at Urbana-Champaign, rg1@illinois.edu & Julia Aguirre, University of Washington-Tacoma, jaguirre@u.washington.edu
Presenter: Tonya Bartell, University of Delaware

Time: 8:00 a.m. – 12:00 p.m.
Session limit: 40 participants

Description: Faculty experienced at explicitly addressing equity offer their perspectives on how they frame their work with pre-service teachers, and how their contexts and personal identities influence what they do in their courses. Participants will analyze sample syllabi (those of presenters) as well as their own for what potential benefits/limitations/challenges exist. Participation in this session last year is not a pre-requisite.

Session goal: To offer mathematics methods instructors a variety of "stances" and specific approaches used in addressing (in)equities and power with pre-service teachers and to allow participants to reflect on how these relate to one's own course design, practice, and students.

To Register: Indicate your interest on the AMTE Conference Registration Form.

4. Increasing Professional Development Capacity: Common Challenges and Approaches to Preparing Math Leaders to Facilitate Professional Development

Programs

Sponsor: Supporting Staff Developer's Project funded by the National Science Foundation
Lead Presenter: Babette Moeller, Education Development Center, bmoeller@edc.org
Presenters: Amy Brodesky, Education Development Center; Lynn Goldsmith, Education Development Center; Barbara Dubitksy, Bank Street College of Education; Marvin Cohen, Bank Street College of Education; Harold Melnick, Bank Street College of Education; Linda Metnetsky, Bank Street College of Education

Time: 8:30 – 11:30 a.m.
Session limit: 40 participants

Description: Participants will explore learning experiences designed to prepare and support math leaders to facilitate two professional development programs. They will view video cases, discuss the knowledge and skills required for facilitating these programs, compare models for training institutes, and see examples of online support approaches. They will leave with greater understanding of the challenges teacher leaders may encounter and ideas to apply in their own work.

Session goals: Over the past decade, an increasing number of curriculum-based professional development (PD) programs have been developed for mathematics teacher educators (e.g., *Developing Mathematical Ideas*, Schifter, Bastable, & Russell, 1999 and beyond; *Learning to Teach Linear Functions,* Seago, Mumme, & Branca, 2004; *Fostering Children's Mathematical Development*, Herrsch, Cameron, Dolk, & Fosnot, 2004). Research on the implementation of PD curricula suggests that facilitators play a key role for the success of a curriculum-based PD program (Seago, 2007; Elliot, Kazami, Lesseig, Mumme, Carroll, & Kelley-Peternson, 2009). As such PD programs become widely available and district-based personnel take on the job of facilitating the programs for their colleagues, there is a need to better understand what additional supports district-based facilitators may need to insure that the programs are being implemented with integrity to their intended goals. The goals for this workshop session are:

1. To share professional development learning experiences that we have developed to support the implementation of two professional development programs (Addressing Accessibility in Mathematics and Math for All).
2. To stimulate discussion among session participants about facilitation challenges and approaches to supporting math teacher leaders in their work.
3. To engage participants in a discussion of what knowledge and skills math teacher leaders need to have to implement professional development programs with fidelity.
4. To provide ideas that participants can apply in their own professional development work.

To Register: Indicate your interest on the AMTE Conference Registration Form.

5. NCTM NCATE Program Reviewer Training Workshop

Sponsor: National Council of Teachers of Mathematics
Lead Presenter: Judy O'Neal, NCTM SPA Coordinator, joneal@northgeorgia.edu
Presenter: Monique Lynch, NCATE Vice President for Program Reviews, mlynch@ncate.org

Time: 8:30 – 11:30 a.m.
Session limit: 30 participants

Description: This session is designed to prepare potential mathematics education program report reviewers for the current NCATE system. This session is also useful to existing reviewers who want to learn the latest information and updates. *A reviewer application is required in order to participate.*

Session goals:
- To prepare potential reviewers for NCATE program reports; and
- To provide an update to current NCTM NCATE reviewers.

To Register: Indicate your interest on the AMTE Conference Registration Form. In addition, you must complete an application form.

6. Professional Development at a Distance: Designing and Facilitating Online Courses for Inservice Mathematics Teachers

Sponsor: Mathematics Teacher Leadership Center funded by the National Science Foundation
Lead Presenter: Robert A. Powers, University of Northern Colorado, robert.powers@unco.edu
Presenter: David M. Glassmeyer, University of Northern Colorado

Time: 8:30 – 11:30 a.m.
Session limit: 30 participants

Description: Participants will experience successful strategies for using synchronous technology to connect learners in distance-delivered mathematics and mathematics education courses. Being supported in close proximity, participants will engage in an online learning session, will learn about online mathematical instructional practices informed by research and experience, and will reflect on the experience of online learning. Computers with internet access required.

Session goals:
- Participants will experience learning in an online environment; and
- Participants will learn best practices for facilitating online learning of mathematics and mathematics education courses.

To Register: Indicate your interest on the AMTE Conference Registration Form.

7. Sense Making and Reasoning with Technology – An Interactive Panel

Sponsor: AMTE's Technology Committee
Lead Presenters: Thomas Dick, Oregon State University, tpdick@math.oregonstate.edu & Karen Hollebrands, North Carolina State University, Karen_hollebrands@ncsu.edu
Presenters: Gail Burrill, Michigan State University; Jessica Cohen, Western Washington University; Kathy Heid, Pennsylvania State University; Hollylynne Lee, North Carolina State University; Rose Zbiek, Pennsylvania State University

Time: 8:30 – 11:30 a.m.
Session limit: 100 participants

Description: This session features several of the authors of chapters in the new volume on technology in NCTM's *Focus on Reasoning and Sense Making* series. Interactive panel presentations will engage the audience in examples that highlight general principles for using technology with secondary mathematics students and prospective teachers.

Session goal: Participants will come away from the session having engaged with tasks that leverage technology for new opportunities for sense making and reasoning. Tasks will be drawn from several content strands: Numbers and Measurement, Algebra, Geometry, Functions, Probability, Data Analysis and Statistics. The notion of "sharing technologies" and how these can be used to facilitate productive discourse will be discussed. The participants will also discuss how the examples can support the CCSS mathematical practice standards.

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8. Teacher Discourse Moves in Context

Sponsor: Mathematics Discourse in Secondary Classrooms (MDISC) funded by the National Science Foundation.

Organizer: Beth Herbel-Eisenmann, Michigan State University, bhe@msu.edu
Lead Presenter: Kate Johnson, Michigan State University, john2896@msu.edu
Presenters: Samuel Otten, Michigan State University; Michelle Cirillo, University of Delaware; Michael Steele, Michigan State University

Time: 8:30 – 11:30 a.m.
Session limit: 40 participants

Description: Participants will engage with activities designed for working with secondary mathematics teachers. The activities include two high-level tasks, video, and transcripts that allow participants to reflect on the ways in which two teachers use "teacher discourse moves" in various contexts (i.e., launching, monitoring small groups, and whole-class discussion). Participants will also provide critical feedback on the activities.

Session goal: Participants will explore "context" in relationship to the use of particular teacher discourse moves and engage in critical conversation about work with secondary mathematics teachers in relationship to becoming purposeful about mathematics classroom discourse.

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9. Teaching Mathematics for Elementary Teachers Courses in Light of the Common Core Standards

Lead Presenter: Susan Nickerson, San Diego State University, snickers@sciences.sdsu.edu
Presenters: Tad Watanabe, Kennesaw State University; Eva Thanheiser, Portland State University

Time: 9:30 – 11:30 a.m.
Session limit: 40 participants

Description: How should the courses for prospective elementary mathematics teachers change as a result of the adoption of the Common Core State Standards (CCSS)? A panel will summarize the Standards with respect to K-5 topics and start the conversation. Small working groups will formulate questions for MTEs to consider in planning their classes.

Session goals: As MTEs, we need to think carefully about the relationship between the K-12 standards and the content of our courses for prospective teachers. Because the CCSS articulate some particular expectations for K-12 students' understanding, as MTEs, we need to promote these understandings in prospective teachers. Because the nation is moving toward more consistent national standards, we have an opportunity at AMTE to think together about what is different in the CCSS from current standards and how to address them in our classes.

We propose a focus on K-5 because this is a grade band in CCSS and we wish to retain a focus sufficient to accomplish something in the short time we will have. The panel (of at least 3) will consist of people who each have already thought in depth about the implications for at least one area. Those present will break into small groups. We will provide reference materials to each of the groups. We imagine the groups identify something specific about a topic, ask what that understanding looks like and how we promote it (e.g., identify some measureable attributes as "additive").

As outcomes, collectively we will have identified some areas and shared at least preliminary answers to the former questions. Furthermore, MTEs will have a model for how to continue the conversation on their own.

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