Association of Mathematics Teacher Educators Eleventh Annual Conference

January 25 – 27, 2007

Irvine, California

Conference Program

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Acknowledgements

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- all speakers who contributed their time and expertise to make this conference a success;
- the AMTE Board of Directors, Conference Coordinator, Executive Director, Conference Committee, Local Arrangements Committee, and Headquarters staff for providing the time and effort necessary to pull this conference together;
- Lori Albers, Mike Klass, Lisa Woodend, and Katherine Lopez-Ramos, San Diego State University, and Angie Moore, Sam Houston State University, for their support with registration and conference materials,
- Ingrid Peterson, University of Kansas, for coordinating arrangements for the preconference sessions;
- the publishers who donated materials for the AMTE Browsing Room;
- the Department of Education at the University of California-Irvine and Key College Publishing for their support of Thursday's Welcome reception; and
- members of the California Association of Mathematics Teacher Educators (CAMTE) for their support and assistance with local arrangements.

The Association of Mathematics Teacher Educators is a member of the Conference Board of the Mathematical Sciences and is an Affiliated Group of the National Council of Teachers of Mathematics. AMTE is proud to acknowledge and welcome members of its 10 affiliated organizations to its Eleventh Annual Conference:

Illinois Mathematics Teacher Educators (IMTE)
Utah Association of Mathematics Teacher Educators (UAMTE)
Florida Association of Mathematics Teacher Educators (FAMTE)
California Association of Mathematics Teacher Educators (CAMTE)
Association of Mathematics Teacher Educators in Connecticut (AMTEC)
Appalachian Association of Mathematics Teacher Educators (AAMTE)
Georgia Association of Mathematics Teacher Educators (GAMTE)
Tennessee Association of Mathematics Teacher Educators (TAMTE)
Pennsylvania Association of Mathematics Teacher Educators (PAMTE)
Massachusetts Mathematics Association of Teacher Educators (MassMATE)

Conference Information

Registration Table

Please stop by the Registration Table, located near the hotel elevators, to obtain your conference materials, including the conference program and your nametag. Please submit your completed Conference Evaluation Form and Volunteer Form in the box on the Registration Table at the conclusion of the conference.

Registration Table Hours:

Thursday, January 24	12:00 noon – 10:00 pm
Friday, January 25	7:30 am – 5:00 pm
Saturday, January 26	7:30 am – 11:30 am

Wireless Internet Access

For conference attendees staying at the Hyatt Hotel: Participants who purchase internet access with your sleeping room for $10.95 per day (the 24-hour period begins when you first sign up) will also have access to wireless internet in the hotel's public function areas that include the lobby, bar, and restaurant. Wireless internet access in the meeting rooms is on a separate network and is unavailable to conference attendees.

For conference attendees not staying at the Hyatt Hotel: You may purchase wireless internet access online using a credit card for $10.95 per day (24-hour period). This will give you access to wireless internet in the hotel's public function areas that include the lobby, bar, and restaurant. Wireless internet access in the meeting rooms is on a separate network and is unavailable to conference attendees.

Hotel Parking Information

Discounted self-parking is available for conference attendees for $5.00 per car per day or $9.00 per car per day for overnight parking. Valet parking is available for $9.00 per car per day or $16.00 per car per day for overnight valet parking. In order to obtain these special discounted rates, just mention that you are with the AMTE conference either as you exit the parking lot (for day guests) or when checking into the hotel (for overnight guests), and staff will charge the appropriate parking rate.

Options for Thursday Dinner

Several restaurants are available in the hotel. In addition, Souplantation, an informal restaurant featuring soup, salad, and bakery items, is within walking distance of the hotel, just a few blocks away, on the corner of Jamboree and Main Street. For additional information, please contact the Hotel Concierge.

Information on Local Attractions

Some information on local attractions is available at the Registration Table, and in displays in the hotel. For additional information, please contact the Hotel Concierge.

Please note that other important information is available at the back of the program book, including the following:

- AMTE Events at the NCTM and NCSM Conferences in Atlanta, GA, in March, 2007
- Call for Proposals for the 2008 AMTE Conference, to be held in Tulsa, OK, from January 24 – 26, 2008 (deadline: May 21, 2007)
- Call for Manuscripts for the Fifth AMTE Monograph (deadline: June 1, 2007)
- Call for Nominees for the AMTE Award for Excellence in Scholarship in Mathematics Teacher Education (deadline: October 1, 2007)
- Call for Papers for the Contemporary Issues in Technology and Teacher Education (CITE) Journal

For your convenience, a map of the hotel is printed on the back of the program booklet.

For any other questions, please contact the volunteers at the Registration Table, or the hotel staff.

Eleventh Annual Conference
Irvine, California • January 2007
Pre-Conference Events

Thursday, January 25, 1:30 - 4:30 p.m.
PRE-CONFERENCE TECHNOLOGY WORKSHOP

Preparing Teachers to Teach Mathematics with Technology **Salon A**

Maggie Niess, *Oregon State University*
Marcia Weinhold, *Purdue University Calumet*
Óscar Chávez, *University of Missouri*
Christine Browning, *Western Michigan University*
Bob Ronau, *University of Louisville*
Suzanne Harper, *Miami University*
Shannon Driskell, *University of Dayton*
David Pugalee, *University of North Carolina – Charlotte*
Joe Garofalo, *University of Virginia*
W. Gary Martin, *Auburn University*

Prepare teachers to teach with technology – throughout teacher education courses – in the spirit of the AMTE's Technology Position Statement. What effective efforts are in progress? What more should be done? What research is needed to help mathematics educators better prepare future mathematics teachers for thoughtful integration of technology into their teaching? This workshop is designed to engage participants in reviewing ideas, developing ideas, contributing to a review of the literature, and proposing a research agenda toward identifying effective teacher education courses in preparing teachers to teach mathematics using appropriate technologies as learning tools. Participants are encouraged to bring their ideas for inclusion in this workshop. *NOTE: Pre-registration is required for this event.*

Other Pre-conference Sessions, which also required pre-registration, are being held on Thursday, January 25. A complete list of those sessions is available at the Registration Table.

Thursday, January 25, 7:00 - 8:30 p.m.
OPENING SESSION

Mathematics Teacher Education and Equity: Implications for Research and Practice **Salon D**

Marta Civil, *University of Arizona*
Megan Franke, *University of California-Los Angeles*
Rochelle Gutiérrez, *University of Illinois at Urbana-Champaign*
Richard Kitchen, *University of New Mexico*
Dorothy White, *University of Georgia*

The panelists will draw on several teacher education projects to present key findings and raise further questions in relation to equity and mathematics teacher education. The different projects represent a range of approaches to this panel's main topic including a discussion of preservice teachers' responses and concerns on issues related to the intersection of culture and mathematics teaching and learning; a partnership/activist model used in mathematics methods courses at the secondary level; a classroom observation protocol to help prospective mathematics teachers focus on equity/diversity considerations while observing their cooperating teacher; a focus on problem posing in an elementary mathematics methods course accompanied by reflecting on how this practice can operate as a way to either open opportunities for students' participation or close them; and a teacher study group centered on teachers learning about the resources and knowledge among their students and families and building on those for mathematics instruction.

Thursday, January 25, 8:30 - 9:30 p.m.
AMTE WELCOME RECEPTION PRE-FUNCTION AREA

The AMTE Welcome Reception is graciously co-sponsored by the Department of Education at the University of California-Irvine and by Key College Publishing.

Eleventh Annual Conference SCHEDULE

January 26 – 27, 2007
Irvine, California

Friday, January 26, 2007

7:00 – 8:00 a.m.	Continental Breakfast	PRE-FUNCTION AREA
8:00 – 9:30 a.m.	Symposiums or Working Groups	
9:30 – 9:45 a.m.	Break	
9:45 – 10:15 a.m.	Individual Sessions	
10:15 – 10:30 a.m.	Break	
10:30 – 11:00 a.m.	Individual Sessions	
11:00 – 11:15 a.m.	Break	
11:15 –12:15 p.m.	Thematic Presentations, Symposiums or Working Groups	
12:15 – 1:30 p.m.	Lunch	Salon A & C
1:30 – 2:30 p.m.	Thematic Presentations, Symposiums, or Working Groups	
2:30 – 2:45 p.m.	Break	
2:45 – 3:15 p.m.	Individual Sessions	
3:15 – 3:30 p.m.	Break	
3:30 – 4:30 p.m.	Thematic Presentations, Symposiums or Working Groups	
4:30 – 5:00 p.m.	Break	
5:00 – 6:30 p.m.	Judith E. Jacobs Lecture	Salon D & E
6:30 – 8:00 p.m.	Dinner	Salon A & C

Saturday, January 27, 2007

7:00 – 8:00 a.m.	Continental Breakfast	PRE-FUNCTION AREA
8:00 – 9:30 a.m.	Symposiums or Working Groups	
9:30 – 9:45 a.m.	Break	
9:45 – 10:15 a.m.	Individual Sessions	
10:15 – 10:30 a.m.	Break	
10:30 – 11:00 a.m.	Individual Sessions	
11:00 – 11:15 a.m.	Break	
11:15 – 12:15 p.m.	Thematic Presentations, Symposiums or Working Groups	
12:15 – 1:30 p.m.	Lunch	Salon A & C
1:30 – 2:30 p.m.	Thematic Presentations, Symposiums or Working Groups	
2:30 – 2:45 p.m.	Break	
2:45 – 3:15 p.m.	Individual Sessions	
3:15 – 3:30 p.m.	Break	
3:30 – 4:30 p.m.	Closing Session	Salon D
4:30 – 5:30 p.m.	Business Meeting	Salon D

Browsing Room

Throughout the conference, materials and software will be available for review in the AMTE Browsing Room, located in the Santiago Room. Selected materials will be distributed to participants at the conclusion of the AMTE Business Meeting on Saturday. The Browsing Room will be open at the following times:

Friday, January 26: 7:30 a.m. – 5:00 p.m.
Saturday, January 27: 7:30 a.m. – 1:30 p.m.

Overview of Friday Morning, January 26, 2007

	8:00 – 9:30	9:45 – 10:15	10:30 – 11:00	11:15 – 12:15
Saddleback	1. Using Video As a Context for Teachers' Noticing – Philipp, Jacobs, Sherin, van Es, Lamb, Nickerson	12. Addressing the Achievement Gap: Preservice Teachers' Knowledge of Culturally Responsive Teaching in the Context of Mathematics – Peterek, Adams, Laframenta	23. Helping Teachers Model Mathematics Meaningfully Using Virtual Manipulatives – Suh	34. Creating a Mathematics Learning Community for Prospective Elementary Teachers – Loats, Gilmore, Romagnano
Trabuco	2. Unpacking the Mathematical Content Preparation of Elementary Teachers – Bassarear, Lester	13. So When Do We Teach Mathematics?: A Study of the Impact of Mathematical Anxiety on Teacher Practice in an Urban High School – Benken, Brown	24. Reflecting on Conceptions of Angle and Technology Use – Browning, Garza-Kling	35. Vocabulary and Reading Development for Secondary Mathematics Teachers – Thompson, Kersaint
Pelican Hill	3. Adapting and Extending Elementary Tasks for Use with Prospective Teachers – Grant, Lo	14. Challenges in Implementing School-based Professional Development –McDuffie, Eve	25. Developing Mathematics Courses for Ph.D. Students in Mathematics Education –Sword	36. Calculators Are Not Just Calculators Anymore: Preservice Teachers Need Appropriate Preparation with Handheld Technology – Moskowitz, Browning, O'Neal
Shady Canyon	4. The Missing Link Connecting Conceptual and Procedural Knowledge – Phillips, Lappan	15. Capturing Growth in Teacher Mathematical Knowledge: A Inquiry into Elementary and Middle School Teachers' Understanding of Algebraic Reasoning – Hedges, Steinmeyer	26. Enacting Mathematics Curriculum in India and the U.S.: Focusing on Important (or Unimportant) Features of Mathematics Problems – Hillman	37. Orchestrating Productive Mathematical Discussions of Student Responses – Smith
Conference Theatre	5. Computation as a Site for Preservice Teachers' Reasoning and Justification – Flowers, Rathouz, Rubenstein	16. Teaching Mathematics for Social Justice: A Promising Pedagogy for Motivating Urban High School Students – Stemn	27. Student Response to Instructional Software: Implications for Improving Teaching Practices with Computer-based Mathematics Learning Environments – Spence	38. Finding Appropriate Mathematics for Middle School Teachers – Mikusa, Melillo
Oak Creek	6. Using Video and Written Cases to Prepare Future Mathematics Teacher Educators – Chval, Lannin, Sutter, Regis, Johnson, Pomerenke	17. Preservice Teachers' Conceptualizations of Equity in Mathematics Education – Johnson	28. Writing-enhanced Mathematics Courses for Preservice Elementary Teachers - Henning	39. Connecting Elementary Mathematics Methods to Department, University, and Community Contexts – Drake, Seymour
Woodbridge	7. Learning Mathematics in and for Practice: Using Records of Practice as (Con)Texts for Learning Mathematical Knowledge for Teaching – Suzuka, Ball, Bass, Boerst, Sleep, Lewis	18. Preservice Teachers Mentor Student Problem Solvers Online – Lambdin, Lahann, Essex	29. Using Metacognitive Strategies during Problem Solving Activities – Jakubowski, Corey	40. What Mathematics MUST Elementary Teachers Know? – Lester, Beckmann, Masingila
Salon B	8. Japanese-style Lesson Study in Higher Education – Ratliff, Miriti, Schack, Coen	19. Preparing Teacher Educators: What are Meaningful Learning Experiences? – Rhodes	30. Mathematical Knowledge for Teaching Algebra: Validating an Assessment of Teacher Knowledge – Floden, McCrory	41. Using Video Cases to Help Teachers Increase Access to Math for Diverse Learners – Moeller, Cohen
Salon E	9. Middle School Mathematics Methods Professional Learning Community – Stallings, Lynch-Davis, Martin, Nosegbe	20. Technological Tools: Integrating *Geometer's Sketchpad* in Algebra – Rider	31. Using Video to Develop a Reflective Stance in Preservice Teachers – Stockero	42. Changing Mathematics Teachers' Beliefs and Practices Through the Use of Student Data and Ongoing Professional Development – Gilbert, Martin, Karabenick
Salon D	10. Inquiry-based Learning in Mathematics Teacher Education – Chavez, Yoshinobu, Smith	21. National Conference on Doctoral Programs in Mathematics Education – Reys	32. Alternatives to Residency: ACCLAIM's Innovative Doctoral Program – Hopkins	43. Issues and Challenges in Mathematics Teacher Education – Fennell, President, National Council of Teachers of Mathematics
Quail Hill	11. Examining Teacher Learning from Videocases Across the Teacher Education Continuum– Seago, Mumme, Stockero	22. Preparing Teachers to Teach with Technology—Hardy	33. Enhancing Secondary Teachers' Understanding of Functions—Beckmann, Thompson	44. Preparing Preservice Teachers to Pursue Professional Development—Lancaster

NOTES

Friday January 26, 2007 8:00 – 9:30 a.m.

Session Number 1 **Saddleback**
Professional Development

Using Video As a Context for Teachers' Noticing

Randolph Philipp, *San Diego State University*
Vicki Jacobs, *San Diego State University*
Miriam Sherin, *Northwestern University*
Elizabeth van Es, *University of California, Irvine*
Lisa Lamb, *San Diego State University*
Susan Nickerson, *San Diego State University*

This working-group session will address the construct of noticing as applied in three research projects. Video clips will be used to ground our discussions and engage participants. We will also consider how we select and use video and how professional development supports shifts in that which teachers notice.

Session Number 2 **Trabuco**
K - 5 Teacher Preparation

Unpacking the Mathematical Content Preparation of Elementary Teachers

Tom Bassarear, *Keene State College*
Frank Lester, Jr., *Indiana University*

This session is the beginning of a "working group" to move forward our understanding of the issues related to developing the content knowledge of elementary teachers. We will present three broad categories of issues: content, pedagogy, and support for instructors. After discussing the issues, we will identify future directions.

Session Number 3 **Pelican Hill**
K - 5 Teacher Preparation

Adapting and Extending Elementary Tasks for Use with Prospective Teachers

Theresa J. Grant, *Western Michigan University*
Jane-Jane Lo, *Western Michigan University*

The session focuses on the issues and challenges involved in adapting NSF-funded curriculum materials for use with prospective elementary teachers. Participants will explore particular elementary tasks and sample responses by prospective teachers, before considering subsequent adaptations designed to bring specific mathematical issues to the fore.

Session Number 4 **Shady Canyon**
Grades 6 - 8 Focus

The Missing Links: Connecting Conceptual and Procedural Knowledge

Elizabeth Phillips, *Michigan State University*
Glenda Lappan, *Michigan State University*

This session will present examples from the Connected Mathematics curriculum that illustrate how the development of conceptual and procedural knowledge could be intertwined. The audience will have the opportunity to examine a sequence of problems that develop conceptual understanding and provide suggestions on how a teacher could help students make the transition from conceptual understanding to procedural fluency.

Session Number 5 **Conference Theatre**
K - 5 Teacher Preparation

Computation as a Site for Preservice Teachers' Reasoning and Justification

Judith Flowers, *University of Michigan-Dearborn*
Margaret Rathouz, *University of Michigan-Dearborn*
Rheta N. Rubenstein, *University of Michigan-Dearborn*

Calculation is central to elementary school curricula but often overlooked as a resource for the reasoning and justification at the heart of mathematics. This session will address questions such as: What types of tasks are productive for this work? What are reasonable expectations for preservice teachers in expressing their justifications?

Session Number 6 **Oak Creek**
University

Using Video and Written Cases to Prepare Future Mathematics Teacher Educators

Kathryn Chval, *University of Missouri-Columbia*
John Lannin, *University of Missouri-Columbia*
Angela D. Sutter, *University of Missouri-Columbia*
Troy P. Regis, *University of Missouri-Columbia*
Christa Jackson, *University of Missouri-Columbia*
Sarah Pomerenke, *University of Missouri-Columbia*

An important consideration for teacher educators involves considering how current teacher educators prepare future teacher educators. This session examines the use of written and video cases as tools for preparing these individuals to teach content and methods courses.

Session Number 7 **Woodbridge**
K - 8 Teacher Preparation

Learning Mathematics In and For Practice: Using Records of Practice as (Con)Texts for Learning Mathematical Knowledge for Teaching

Kara Suzuka, *University of Michigan*
Deborah Loewenberg Ball, *University of Michigan*
Hyman Bass, *University of Michigan*
Timothy Boerst, *South Redford School District*
Laurie Sleep, *University of Michigan*
Jennifer Lewis, *University of Michigan*

How can records of classroom practice be used to help teachers learn mathematical knowledge and skills needed for teaching? This interactive session will engage participants in mathematical study designed to support the development of usable content knowledge. Aspects of the design will be examined, and affordances and possible pitfalls discussed.

Session Number 8 **Salon B**
General; University

Japanese-style Lesson Study in Higher Education

Michael Ratliff, *Lindsey Wilson College*
Landrea Miriti, *Bluegrass Community & Technical College*
Edna Schack, *Morehead State University*
Patrick Coen, *Eastern Kentucky University*

Four faculty members from four higher education institutions began a lesson study for a college-level mathematics course with two major goals: (1) Become more knowledgeable about a Japanese-style lesson study by experiencing the process; and (2) Improve the instruction and learning in the preservice teachers' mathematics content courses. The purpose of this session is to inform others about this work and provide an opportunity to experience a lesson planning session.

Session Number 9 **Salon E**
6 - 8 Teacher Preparation

Middle School Mathematics Methods Professional Learning Community

Lynn Stallings, *Kennesaw State University*
Kathleen Lynch-Davis, *Appalachian State University*
Ellice Martin, *Valdosta State University*
Clara Nosegbe, *Georgia State University*

In this session, an informal professional learning community of middle school mathematics methods (MSM2) instructors will share what they've learned from their collaboration in planning their courses, debriefing, and sharing assessment results. Participants will be invited to discuss issues related to MSM2 course goals, assessments, and outcomes.

Session Number 10 **Salon D**
9 - 12 Teacher Preparation

Inquiry-based Learning in Mathematics Teacher Education

Óscar Chávez, *University of Missouri-Columbia*
Stan Yoshinobu, *California State University, Dominguez Hills*
Jennifer Smith, *University of Texas at Austin*

This session will address how Inquiry-based Learning (IBL), based on active participation of the students, can be used in the preparation of mathematics teachers. The tenets of the method, experiences of practitioners of it, and its implications for teacher education will be discussed.

Session Number 11 **Quail Hill**
6 - 12 Teacher Preparation

Examining Teacher Learning from Videocases Across the Teacher Education Continuum

Nanette Seago, *WestEd*
Judy Mumme, *WestEd*
Shari L. Stockero, *Michigan Technological University*

The ways in which preservice and inservice teachers engage with the same videocase professional development curriculum materials will be examined using dialogue and teacher work. Differences in the preservice and inservice teachers' interactions with the materials and implications for adapting existing materials to preservice settings will be discussed.

Session Number 12 **Saddleback**
K - 8 Teacher Preparation

Addressing the Achievement Gap: Preservice Teachers' Knowledge of Culturally Responsive Teaching in the Context of Mathematics

Emily Peterek, *University of Florida*
Thomasenia Lott Adams, *University of Florida*
Joanne Laframenta, *University of Florida*

We will discuss pilot data that has been gathered in a mathematics methods course for preservice elementary school teachers that relates to their awareness of the need for culturally responsive pedagogy. We will address several questions such as: What do these teachers know about culturally responsive teaching? What do they think they know? What can we do to encourage preservice teachers to consider issues of race, culture, and social status as they relate to the classroom and, specifically, to mathematics instruction?

Session Number 13 **Trabuco**
Professional Development

So When Do We Teach Mathematics?: A Study of the Impact of Mathematical Anxiety on Teacher Practice in an Urban High School

Babette Benken, *California State University-Long Beach*
Nancy Brown, *Oakland University in Michigan*

In this session we share our professional development effort within one high school. Throughout intervention teachers' emotional needs and practical problems impeded efforts to facilitate change in mathematical understandings and practices. Results revealed causes to be teachers' mathematical anxiety and fear of public recognition of a lack of content knowledge.

Session Number 14 **Pelican Hill**
K - 5 Professional Development

Challenges in Implementing School-based Professional Development

Amy Roth McDuffie, *Washington State University Tri-Cities*
Norma Eve, *Tapteal Elementary School, West Richland, Washington*

This session will present findings from a year-long study of a professional development project that adapted approaches from lesson study and involved all teachers and the principals from two elementary schools. We will discuss the projects' challenges and implications for strategies for effective implementation of school-based professional development programs.

Session Number 15 **Shady Canyon**
K - 8 Professional Development

Capturing Growth in Teacher Mathematical Knowledge: A Inquiry into Elementary and Middle School Teachers' Understanding of Algebraic Reasoning and Relationships

Melissa Hedges, *University of Wisconsin-Milwaukee*
Meghan Steinmeyer, *University of Wisconsin-Milwaukee*

The Milwaukee Mathematics Partnership engaged elementary and middle school teacher leaders in year-long professional development to strengthen their mathematics knowledge for teaching algebra. Along this journey teachers completed periodic performance assessments and pre-post assessments to capture and monitor growth in mathematical knowledge for teaching.

Session Number 16 **Conference Theatre**
9 - 12 Grade Level Focus

Teaching Mathematics for Social Justice: A Promising Pedagogy for Motivating Urban High School Students

Blidi S. Stemn, *Hofstra University*

The presenter designed a course on teaching mathematics for social justice. This session will present results of action research conducted with a mathematics teacher who was enrolled in the course to investigate if integration of historical, cultural, and social perspectives in a precalculus class would help enhance a group of urban students' motivation and interest in mathematics.

Session Number 17 **Oak Creek**
K - 5 Teacher Preparation

Preservice Teachers' Conceptualizations of Equity in Mathematics Education

Delayne Y. Johnson, *University of Delaware*

This session focuses on a study of preservice elementary school teachers' thinking about issues of equity in mathematics teaching and learning. Findings provide insight into preservice teachers' views of conceptualizations of equity such as social justice and equality, and their thinking about equity issues such as the mathematics achievement gap.

Session Number 18 **Woodbridge**
K - 5 Teacher Preparation

Preservice Teachers Mentor Student Problem Solvers Online

Diana V. Lambdin, *Indiana University*
Paula Elmer Lahann, *Indiana University*
N. Kathryn Essex, *Indiana University*

Preservice elementary teachers (PSTs) enrolled in a math methods course gain invaluable experience in responding to the work of school-age problem solvers through a structured program involving online mentoring of children's solutions to Problems of the Week from the Math Forum's website www.mathforum.org).

Session Number 19 **Salon B**
Professional Development

Preparing Teacher Educators: What are Meaningful Learning Experiences?

Ginger Rhodes, *University of Georgia*

Little is known about how graduate students become professionals who orchestrate learning experiences for teachers. We will describe a project that is structured to support graduate student learning and share results of a study which examined experiences that graduate students identified as meaningful learning experiences while operating as professional developers.

Session Number 20 **Salon E**
6 - 12 Teacher Preparation

Technological Tools: Integrating Geometer's Sketchpad in Algebra

Robin Rider, *East Carolina University*

In our courses, we implement appropriate uses of various technological tools to enhance prospective teachers' knowledge of mathematics and applications for technology. In this session we present examples of integrating *Geometer's Sketchpad* in algebra methods and content courses and initiate group discussion on its use in teaching algebra.

Session Number 21 **Salon D**
Mathematics Education Programs

National Conference on Doctoral Programs in Mathematics Education

Robert Reys, *University of Missouri-Columbia*

This session will share some of the agenda for the Second National Conference on Doctoral Programs in Mathematics Education that will be held in Fall 2007. Input will be sought about key issues in the preparation of doctorates in mathematics that should be addressed during the Conference and nominations of people well-positioned to address the issues.

Session Number 22 **Quail Hill**
6 - 12 Professional Development

Preparing Teachers to Teach with Technology

Michael Hardy, *Saint Xavier University*

This session will present the impact that the Technology in Mathematics Education (TIME) Project had on participating middle level and secondary mathematics teachers' preparedness to teach via technology. The TIME Project was developed to help middle and secondary mathematics teachers broaden their knowledge of technological resources and methods of teaching mathematics with them. To attain this goal, participants completed a course in which they used a variety of resources to explore a variety of topics and problems relevant to the levels at which they taught.

Session Number 23 **Saddleback**
K - 5 Professional Development

Helping Teachers Model Mathematics Meaningfully using Virtual Manipulatives

Jennifer Suh, *George Mason University*

During this session, I will share how preservice and inservice teachers engaged in activities with virtual manipulatives that deepened their conceptual and procedural understanding of mathematics concepts and enhanced their pedagogical knowledge. Teachers engaged in guided exploration with the virtual tools, wrote and delivered lessons using the virtual manipulatives, and reflected on the effectiveness of the applet.

Session Number 24 **Trabuco**
K - 8 Teacher Preparation

Reflecting on Conceptions of Angle and Technology Use

Christine Browning, *Western Michigan University*
Gina Garza-Kling, *Western Michigan University*

Findings from a study that focused on preservice elementary/middle school teachers' and middle school students' understanding of angle and angle measure will be shared. The study examined how curriculum materials exploiting the use of graphing calculator geometry applications and Logo impacted students' understanding.

Session Number 25 **Pelican Hill**
Mathematics Education Programs

Developing Mathematics Courses for Ph.D. Students in Mathematics Education

Sarah Sword, *Education Development Center, Inc.*
What kinds of mathematics courses will prepare doctoral students for the range of work they will do as mathematics educators? In this session, we discuss one example of a course designed to help students develop strategies for continued life-long learning of mathematics related to their professional work.

Session Number 26 **Shady Canyon**
K - 8 Teacher Development

Enacting Mathematics Curriculum in India and the U.S.: Focusing on Important (or Unimportant) Features of Mathematics Problems

Susan Hillman, *Saginaw Valley State University*

Challenges and commonalities/differences in mathematics curriculum as taught in elementary classrooms in India offer an alternative perspective through which to view teacher education for elementary school teachers in the U. S. This session will highlight the mathematical knowledge teachers need to determine what is important (or unimportant) when teaching mathematics.

Session Number 27 **Conference Theatre**
9 - 12 Grade Level Focus

Student Response to Instructional Software: Implications for Improving Teaching Practices with Computer-Based Mathematics Learning Environments

Dianna Spence, *North Georgia College & State University*

Teachers need to understand factors mediating the effectiveness of instructional technology. This session examines student attitudes, engagement, and achievement in mathematics classes using instructional software. Findings from two studies are integrated with teacher experiences and current literature to suggest effective teaching practices and practical expectations with computer-based instructional tools.

Session Number 28 **Oak Creek**
K - 8 Teacher Preparation

Writing-enhanced Mathematics Courses for Preservice Elementary Teachers

Cindy Henning, *Columbus State University*
This session will present mathematical and reflective tasks used in an advanced numbers and operations course designed to engage students and provide opportunities for instructors to assess problem solving strategies and understandings. Sample problems, student work, and rubrics will be distributed.

Session Number 29 **Woodbridge**
6 - 12 Teacher Preparation

Using Metacognitive Strategies during Problem Solving Activities

Elizabeth Jakubowski, *Florida State University*
Darryl Corey, *Valdosta State University*

The similarities and differences between high school students', prospective teachers', and practicing teachers' use of metacognitive strategies during problem solving activities in face-to-face and online learning environments are used to generate recommendations for teacher education programs.

Session Number 30 **Salon B**
6 - 12 Grade Level Focus

Mathematical Knowledge for Teaching Algebra: Validating an Assessment of Teacher Knowledge

Robert Floden, *Michigan State University*
Raven McCrory, *Michigan State University*

Report on progress in developing an assessment focused on teachers' mathematical knowledge for teaching algebra. The session describes the assessment framework and the design and results of a validation study. Audience discussion will focus on how preservice preparation would affect scores on each of the dimensions of teacher knowledge measured.

Session Number 31 **Salon E**
6 - 8 Teacher Preparation

Using Video to Develop a Reflective Stance in Preservice Teachers

Shari Stockero, *Michigan Technological University*

This study examines the effects of using a video-case curriculum in a middle school mathematics methods course. I consider changes in preservice teachers' reflective stance that occurred while reflecting via video and examine the extent to which this stance transferred to reflection on their own teaching in course field experiences.

Session Number 32 **Salon D**
Mathematics Education Programs

Alternatives to Residency: ACCLAIM's Innovative Doctoral Program

Theresa Hopkins, *University of Tennessee*
Randy Collins, *University of Tennessee*

This session will describe the innovative doctoral program of ACCLAIM, an NSF-CLT. Of primary focus will be the internship year, which allows students to complete residency requirements without giving up their teaching positions. An overview of the program as well as feedback from participants will be shared.

Session Number 33 **Quail Hill**
9 - 12 Teacher Preparation

Enhancing Secondary Teachers' Understanding of Functions

Charlene Beckmann, *Grand Valley State University*
Denisse R. Thompson, *University of South Florida*

Functions underlie much of the mathematics secondary students study. Teachers need to understand functions at a deep level and exhibit this understanding through various representations and contexts. Unfortunately, many prospective secondary teachers' understanding of functions is tentative. We share several ways to help teachers become more familiar with functions as well as their work on assignments.

Session Number 34 **Saddleback**
K - 5 Teacher Preparation

Creating a Mathematics Learning Community for Prospective Elementary Teachers

James T. Loats, *The Metropolitan State College of Denver*
Don Gilmore, *The Metropolitan State College of Denver*
Lew Romagnano, *The Metropolitan State College of Denver*

How can a preservice teacher preparation program support the development of prospective elementary teachers' knowledge of mathematics for teaching? In this session, we will share a set of design principles for such a program, along with some examples of how these principles might be enacted.

Session Number 35 **Trabuco**
6 - 12 Teacher Preparation

Vocabulary and Reading Development for Secondary Mathematics Teachers

Denisse Thompson, *University of South Florida*
Gladis Kersaint, *University of South Florida*

Many states currently require secondary mathematics teachers to receive training in content-specific reading strategies. Such strategies include vocabulary development. This session will discuss various reading and vocabulary development approaches used in a mathematics-specific content reading course.

Session Number 36 **Pelican Hill**
6 - 12 Teacher Preparation

Calculators Are Not Just Calculators Anymore: Preservice Teachers Need Appropriate Preparation with Handheld Technology

Stuart Moskowitz, *Humboldt State University*
Christine Browning, *Western Michigan University*
Judy O'Neal, *North Georgia College & State University*

Each year, calculators are introduced with more features. But, regardless if it's basic four function calculators or the fanciest models with computer algebra, preservice teachers need appropriate training. This presentation uses these fanciest new features as a prompt to discuss how handhelds enhance the training of preservice teachers.

Session Number 37 **Shady Canyon**
Professional Development

Orchestrating Productive Mathematical Discussions of Student Responses

Margaret Smith, *University of Pittsburgh*

This session will focus on a model that specifies five practices that teachers can learn in order to use student responses more effectively. A discussion will include examples of activities in which teachers can engage to learn these practices and evidence of how these activities influence teachers' thinking and practice.

Session Number 38 **Conference Theatre**
6 - 8 Teacher Preparation

Finding Appropriate Mathematics for Middle School Teachers

Michael Mikusa, *Kent State University*
Judie Melillo, *Kent State University*

Come and participate in a discussion about the co-teaching efforts of mathematicians and mathematics educators who are piloting content courses for middle school teachers.

Session Number 39 **Oak Creek**
K - 5 Teacher Preparation

Connecting Elementary Mathematics Methods to Department, University, and Community Contexts

Corey Drake, *Iowa State University*
Jennifer Seymour, *Iowa State University*

This session presents three collaborative projects connecting the elementary mathematics methods course at Iowa State University with resources within and outside the university, including science and literacy methods courses, mathematics content courses, and elementary families and communities. We will present the conceptual frameworks, key activities, and results for each project.

Session Number 40 **Woodbridge**
K - 8 Teacher Preparation

What Mathematics MUST Elementary Teachers Know?

Frank Lester, *Indiana University*
Sybilla Beckmann, *University of Georgia*
Joanna Masingila, *Syracuse University*

This session is part of an effort to establish a Working Group on the Mathematics Education of Elementary Teachers. The focus of the discussion will be on the mathematics content knowledge necessary to be an effective mathematics teacher at the elementary level.

Session Number 41 **Salon B**
K - 5 Teacher Preparation

Using Video Cases to Help Teachers Increase Access to Math for Diverse Learners

Babette Moeller, *EDC/Center for Children & Technology*
Marvin Cohen, *Bank Street College of Education*

In this session we will demonstrate video-case resources and learning experiences designed to better prepare teachers for serving students with and without disabilities within a standards-based mathematics curriculum. We will also present research findings that inform the use of these materials with preservice and inservice teachers.

Session Number 42 **Salon E**
Professional Development

Changing Mathematics Teachers' Beliefs and Practices Through the Use of Student Data and Ongoing Professional Development

Melissa C. Gilbert, *University of Michigan*
W. Gary Martin, *Auburn University*
Stuart Karabenick, *University of Michigan*

This session focuses on a series of workshops designed to change mathematics teachers' beliefs (e.g., nature of mathematics, diverse students' abilities to learn mathematics) and their practices (e.g., increasing students' opportunities to learn and implementing standards-based instruction) through incorporating classroom data into ongoing site- and university-based professional development.

Session Number 43 **Salon D**
Special Invited Presentation

Issues and Challenges in Mathematics Teacher Education

Francis (Skip) Fennell, *President, National Council of Teachers of Mathematics; McDaniel College*

Do you wonder about the seemingly endless criticisms of teacher education? What does this mean for mathematics teacher education? Issues to be discussed include accreditation and certification, the role of research, relationships between mathematics and education departments, and how NCTM fits into this complex equation.

Session Number 44 **Quail Hill**
Teacher Preparation

Preparing Preservice Teachers to Pursue Professional Development

Stephen Lancaster, *University of Oklahoma*

Can we take steps within preservice teacher programs to instill within preservice teachers a sense of the importance of continued professional development once the teacher has begun their full-time teaching career? The goal of this session is to provide suggestions for course activities and program approaches that teacher educators can utilize with the intent of improving professional development participation.

Lunch 12:15 – 1:30 p.m. Salons A & C

Overview of Friday Afternoon January 26, 2007

	1:30 - 2:30	2:45 - 3:15	3:30 - 4:30

Saddleback	45. The NCTM *Curriculum Focal Points*: A Quest for Coherence – Fennell, Beckmann, Zbiek	56. Inquiry and Collaboration in Support of Teacher Change: Stories of High School Mathematics Teachers – Slavit	65. My Ideal Mathematics Classroom: Preservice Teachers' Vision – Cwikla
Trabuco	46. Place-based and the Rural Context – Mitchell, Hopkins	57. Real-world Connections in Secondary Math Teaching – Gainsburg	66. Preservice and Inservice Teachers: What Do They Learn by Interacting Together in a Seminar Focused on Examining the Algebraic Thinking of Elementary-aged Students? – Bastable, Kinzer, Kribs-Zaleta
Pelican Hill	47. Listening to and Learning about Children's Mathematics – Kastberg, Klerlein	58. Examining the Role of the University Mathematics Educator – Arbaugh, Appova	67. Assessing Mathematical Understanding of Secondary Teachers: Building a Canon and a Core – Manouchehri
Shady Canyon	48. A Course in Designing Mathematical Tasks – Friel, Smith, Martin	59. Measuring Mathematical Power: Methods for Evaluating Teacher Change – Luebeck	68. Building Mathematics Teacher Leaders: The Oregon Mathematics Leadership Institute – Higgins, Knott, Rigelman, Van Cleave, Peterson
Conference Theatre	49. Evolution of a Mathematics Capstone Course for High School Teachers as Recommended in the MET Report – Kepner, Winson, Aboufadel, Burrill, Verhey, Dempsey	60. Teachers' Knowledge of Geometry for Teaching – Magner, McMillen	69. Japanese Lesson Study as a Strategy to Construct Pre- & Inservice Teachers' Confidence in Modern Methods for Teaching Mathematics – Rusch
Oak Creek	50. Professional Development that Supports and Follows Mathematics Teachers in Teaching with Spreadsheets – Niess	61. Preparing Teachers to Work with English Language Learning Students: Issues of Research and Practice – Analt, Civil, Horak, Khisty, Kitchen, Kondek	70. Continuous Growth and Improvement: Essential to Teacher Development – Gojak, President, National Council of Supervisors of Mathematics
Woodbridge	51. Content Courses for Rural Teachers: An Electronic Classroom Model – Evans, Loats, Gilmore Empowering Teachers: Establishing Collaborative Communities of Practice – Tarlow, Cameron	62. Developing Prospective Teacher Educators' Understanding of Teacher Education through the Creation of Multimedia Case Studies – Masingila, Ochanji	71. MathNerds and the Development of Mathematical Knowledge for Teaching – Cavey, Mahavier
Salon B	52. Sustaining Mathematics Teacher Education through Coaching – Bucci, Brosnan, Erchick	63. Guiding Rural Middle School Teachers Toward Highly Qualified Status in Mathematics – Karakok, Niess, Johnston	72. Issues and Challenges in Professional Development: Teachers' Mathematical Knowledge for Teaching a Coherent Curriculum – Burrill, Ferrini-Mundy
Salon E	53. Deepening Our Understanding of Lesson Study: Role of Outside Commentators – Watanabe, Yoshida		
Salon D	54. Excellence in Service in Mathematics Teacher Education Award Winner's Presentation		
Quail Hill	55. Assessing and Assisting At-risk Students' Achievement with the *First in Math* Online Program – Columba Creating Opportunities for Prospective Teachers to Reflect on the Role of Technology in Their Future Classrooms – Grundmeier	64. The Internet: Problem Solving Friend or Foe? – Wanko	73. Exploring Prospective Elementary Teachers' Mathematical Knowledge for Teaching – Lovin, Bolt Breaking Down Barriers to Providing Challenging Mathematics for All Students – Johnston

The Judith E. Jacobs Lecture Salon D & E, 5:00 – 6:30 p.m.

NOTES

Session Number 45 **Saddleback**
Special Invited Presentation

The NCTM Curriculum Focal Points: A Quest for Coherence

Francis (Skip) Fennell, *President, National Council of Teachers of Mathematics; McDaniel College*
Sybilla Beckmann, *University of Georgia*
Rose Zbiek, *Pennsylvania State University*

A presentation of the *NCTM Curriculum Focal Points for Prekindergarten through Grade Eight*. The presentation will present issues relative to the focal points, their development and use. As with all AMTE sessions, time will be provided for questions and dialogue.

Session Number 46 **Trabuco**
9 - 12 Grade Level Focus

Place-based and the Rural Context

Karen Mitchell, *Marshall University*
Terri Hopkins, *University of Tennessee at Knoxville*

This session will begin with a look at the rural context of the five NSF-supported, high-school level, reform textbook series. Participants will then have an opportunity to discuss issues related to place-based mathematics education and to examine some place-based lessons.

Session Number 47 **Pelican Hill**
K - 5 Teacher Preparation

Listening to and Learning about Children's Mathematics

Signe Kastberg, *Indiana University*
Jacob Klerlein, *Indiana University*

This working group is designed to explore the potential of a listening activity designed to support the development of future teachers' listening skills and understandings of children's mathematics. Participants will engage in a listening episode as experienced by students in the course and discuss cases of students' work.

Session Number 48 **Shady Canyon**
K - 8 Teacher Preparation

A Course in Designing Mathematical Tasks?

Susan N. Friel, *University of North Carolina-Chapel Hill*
Margaret Smith (responder), *University of Pittsburgh*
Gary Martin (responder), *Auburn University*

This session will present an overview of a graduate-level course developed to engage K - 8 mathematics teachers in the use of principles of design related to the development and use of high cognitive-demand mathematics tasks.

Session Number 49 **Conference Theatre**
9 - 12 Teacher Preparation

Evolution of a Mathematics Capstone Course for High School Teachers as Recommended in the MET Report

Henry S. Kepner, *University of Wisconsin-Milwaukee*
Matthew Winsor, *University of Texas at El Paso*
Edward Aboufadel, *Grand Valley State University*
Gail Burrill, *Michigan State University*
Roger Verhey, *University of Michigan-Dearborn*
David Dempsey, *Jacksonville State University*

Capstone course developers from several universities will share their curriculum development and instructional experiences, observations of student work, and preliminary impact on the high school teaching of their students.

Session Number 50 **Oak Creek**
Professional Development

Professional Development that Supports and Follows Mathematics Teachers in Teaching With Spreadsheets

Maggie Niess, *Oregon State University*

Spreadsheets have potential to support learning mathematics. But teachers have not learned mathematics with spreadsheets. This professional development program focused on improving the teachers' Technology Pedagogical Content Knowledge that supports them in teaching with spreadsheets. The programs and research results are provided concerning how the teachers redesign and teach mathematics with spreadsheets.

Session Number 51 **Woodbridge**
Professional Development

Content Courses for Rural Teachers: An Electronic Classroom Model

Brooke Evans, *Metropolitan State College of Denver*
Jim Loats, *Metropolitan State College of Denver*
Don Gilmore, *Metropolitan State College of Denver*

This session will outline and discuss a model for providing content course credit to rural teachers via an electronic classroom model. The courses, available for graduate credit for practicing teachers, serve as a model for high quality, content-centered professional development for K-12 mathematics teachers in rural schools.

Session Number 51 *(continued)* **Woodbridge**

Empowering Teachers: Establishing Collaborative Communities of Practice

Lynn Tarlow, *MitC, City College of New York*
Antonia Cameron, *MitC, City College of New York*

In our presentation and discussion, we examine a three-tiered professional-development model designed to create and sustain collaborative communities of practice. This model integrates workshops at Mathematics in the City, a research-based project in mathematics education; staff development in schools; and guided inter-visitations to mentor-site classrooms, a form of lesson study.

Session Number 52 **Salon B**
Professional Development

Sustaining Mathematics Teacher Education through Coaching

Terri Bucci, *The Ohio State University*
Patti Brosnan, *The Ohio State University*
Diana B. Erchick, *The Ohio State University*

This presentation will highlight the progress of a large-scale, state-funded coaching program which currently works exclusively with the schools with the lowest scores on state assessments. The program focus is on reaching all students' mathematical potential through the process of teaching not telling (TNT) through sustained, job-embedded professional development.

Session Number 53 **Salon E**
Professional Development

Deepening our Understanding of Lesson Study: Role of Outside Commentators

Tad Watanabe, *Kennesaw State University*
Makoto Yoshida, *Global Education Resources, LLC*

Although lesson study is teacher-led and teacher-centered professional development, non-classroom teachers do play some important roles to maximize teacher learning. In this session, we will share some principles for being knowledgeable that we have learned from experienced Japanese mathematics educators and from our own experiences.

Session Number 54 **Salon D**
AMTE Award Winner's Session

Excellence in Service in Mathematics Teacher Education Award Winner

The recipient for the award for excellence in service was nominated by AMTE members and selected by the AMTE Awards Committee because of the significant and lasting contributions she/he has made to mathematics teacher education, directly and indirectly. During the session, the recipient will share his/her philosophy of service. The name of the recipient will be announced during the Opening Session on Thursday evening.

Session Number 55 **Quail Hill**
Technology

Assessing and Assisting At-risk Students' Achievement with the First in Math Online Program

Lynn Columba, *Lehigh University*

This presentation will describe the preliminary mapping of the *First in Math*® online program (a program for mastering basic facts, which identifies students who are not progressing). Data will be shared from interviews with selected third graders from school districts using *First in Math*® in order to find out more information concerning how the students are constructing concepts or using a procedure or thinking strategy.

Creating Opportunities for Prospective Teachers to Reflect on the Role of Technology in Their Future Classrooms

Todd Grundmeier, *California State Polytechnic University*

This session will focus on the redesign of a technology course for future secondary school mathematics teachers. A summary of a research project that influenced the course changes and activities that have been developed to address weaknesses in the course that became evident from the research will be discussed.

Have You Discovered the Browsing Room?

In the Santiago Room, you will find the latest textbooks, professional development support materials, and other resources for mathematics teacher educators. Get an advanced look at many of the prizes that will be given away at the close of the AMTE Business Meeting on Saturday afternoon.

What: **Browsing Room**
Where: **Santiago Room**
When: **Friday, 7:30 a.m. to 5:00 p.m.**
AND
Saturday, 7:30 a.m. to 1:30 p.m.

STOP BY AND TAKE A LOOK!

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Session Number 56 **Saddleback**
9 - 12 Professional Development

Inquiry and Collaboration in Support of Teacher Change: Stories of High School Mathematics Teachers

David Slavit, *Washington State University Vancouver*

Partnership for Reform in Secondary Science and Mathematics (PRiSSM) supports teachers engaged in collaborative inquiry to improve instruction. The session will briefly overview the project, provide narrative and videotaped description of one teacher group case study, brief synthesis, and 10 minutes of audience interaction.

Session Number 57 **Trabuco**
6 - 12 Grade Level Focus

Real-World Connections in Secondary Math Teaching

Julie Gainsburg, *California State University, Northridge*

In this session, results from two studies of secondary mathematics teachers that investigated how, how often, and why they use (or do not use) real-world connections will be shared. Participants will consider the implications of these findings and share ideas for building math teachers' capacity to take advantage of real-world connections.

Session Number 58 **Pelican Hill**
9 - 12 Professional Development

Examining the Role of the University Mathematics Educator

Fran Arbaugh, *University of Missouri*
Aina Appova, *University of Missouri*

Due to the scarce availability of the literature, we focus on the role of facilitator in teacher study-group discussions. By coding the debriefings of high school teachers observing each other's classrooms, we developed a beginning framework to reflect on the role of facilitator in similar types of professional development.

Session Number 59 **Shady Canyon**
Professional Development

Measuring Mathematical Power: Methods for Evaluating Teacher Change

Jennifer Luebeck, *Montana State University-Bozeman*

In the context of an existing program serving K-12 mathematics teachers in Montana, this session examines the effectiveness of varied strategies to evaluate teacher change and addresses the challenges presented by providing professional development for isolated rural teachers.

Session Number 60 **Conference Theatre**
Professional Development

Teachers' Knowledge of Geometry for Teaching

Jodelle (Jody) Magner, *Buffalo State College*
Sue McMillen, *Buffalo State College*

MSP-grant-funded content courses with an emphasis on geometry for inservice teachers were designed. The 200 participating teachers are from a high-need urban district and are in their second year of implementation of a standards-based curriculum. Insights and findings from the second year of implementation will be shared.

Session Number 61 **Oak Creek**
Professional Development

Preparing Teachers to Work with English Language Learning Students: Issues of Research and Practice

Cynthia O. Anhalt, *The University of Arizona, CEMELA*
Marta Civil, *The University of Arizona*
Virginia Horak, *The University of Arizona*
Lena Licon Khisty, *University of Illinois at Chicago*
Richard Kitchen, *The University of New Mexico*
Laura Kondek, *The University of Arizona*

Researchers from CEMELA, Center for the Mathematics Education of Latinos/as, will address issues of research and practice in professional development for mathematics teachers of English Language Learning student populations in various geographical and educational contexts.

Session Number 62 **Woodbridge University**

Developing Prospective Teacher Educators' Understanding of Teacher Education through the Creation of Multimedia Case Studies

Joanna O. Masingila, *Syracuse University*
Moses Ochanji, *California State University-San Marcos*

In this session, we give a second report on our research investigating the knowledge development of prospective teacher educators as they created multimedia case studies of practice for use with preservice and inservice teachers. This session is intended to provide information as well as raise issues regarding the development of teacher educators.

Session Number 63 **Salon B**
6 - 8 Professional Development

Guiding Rural Middle School Teachers Toward Highly Qualified Status in Mathematics

Gulden Karakok, *Oregon State University*
Margaret Niess, *Oregon State University*
Tina Johnston, *Oregon State University*

In recognition of rural mathematics teachers' needs, a program was developed to increase teachers' mathematics knowledge supporting highly qualified status. Program organization, research design and teacher change are reported. Discussion concerns rural inservice instruction constraints and models that aid teachers' acquisition of highly qualified status.

Session Number 64 **Quail Hill**
9 - 12 Teacher Preparation

The Internet: Problem Solving Friend or Foe?

Jeffrey Wanko, *Miami University*

As students and preservice teachers become more savvy about Internet resources, the tasks of teaching about and doing problem solving have developed new and interesting complications. Participants will learn about these dilemmas and explore possible solutions for keeping problem solving a rich mathematical activity.

Session Number 65 **Saddleback**
K - 8 Teacher Preparation

"My Ideal Mathematics Classroom": Preservice Teachers' Vision

Julie Cwikla, *University of Southern Mississippi Gulf Coast*

Over 300 preservice teachers from five institutions of higher learning submitted a two-page written description of how they envision their future mathematics teaching practices. How these practices align with the NCTM standards and the overall mission of their teacher preparation programs will be presented.

Session Number 66 **Trabuco**
Professional Development

Preservice and Inservice Teachers: What Do They Learn by Interacting Together in a Seminar Focused on Examining Algebraic Thinking?

Virginia Bastable, *Mount Holyoke College*
Cathy Kinzer, *New Mexico State University*
Christopher Kribs-Zaleta, *University of Texas-Arlington*

This session will be based on research examining the learning of both preservice and inservice teachers who participated in a seminar named Reasoning Algebraically about Operations (RAO). The RAO seminar is focused on understanding how elementary-aged students learn how to make and support general claims in mathematics and what moves their teachers make in order to support such student thinking.

Session Number 67 **Pelican Hill**
9 - 12 Teacher Preparation

Assessing Mathematical Understanding of Secondary Teachers: Building a Canon and a Core

Azita Marouchehri, *Central Michigan University*

This session will provide an opportunity for those involved and/or interested in secondary mathematics teacher preparation to comment on/evaluate/revise the first draft of a test of conceptual understanding of mathematics designed for assessing prospective secondary teachers' knowledge of the subject-matter necessary for teaching upon completion of their undergraduate program of study.

Session Number 68 **Shady Canyon**
Professional Development

Building Mathematics Teacher Leaders: The Oregon Mathematics Leadership Institute

Karen Higgins, *Oregon State University*
Libby Knott, *University of Montana*
Nicole Miller Rigelman, *George Fox University (Oregon)*
Martha Van Cleave, *Linfield College (Oregon)*
Scott Peterson, *Oregon State University*

Lessons learned from the NSF/MSP teacher institute project OMLI (Oregon Mathematics Leadership Institute: enhancing mathematics content knowledge for all levels of teachers (K-12), building collegial leadership and professional learning communities, research on student mathematical discourse, and impact on college faculty).

Session Number 69 **Conference Theatre**
Teacher Preparation

Japanese Lesson Study as a Strategy to Construct Pre- & Inservice Teachers' Confidence in Modern Methods for Teaching Mathematics

Tracy Rusch, *Southern New Hampshire University*

One of the greatest struggles in instructional reform is sustained application of new ideas in real classrooms. Working Group Question: Could using the Japanese Lesson Study model in methods coursework for preservice and inservice teachers help bridge the gap between theory and sustained practical application?

Session Number 70 **Oak Creek**
Special Invited Session

Continuous Growth and Improvement: Essential to Teacher Development

Linda Gojak, *President, National Council for Supervisors of Mathematics; John Carroll University*

As teachers reflect on practice and work together to become more effective in helping all students achieve, creating a culture of continuous growth and improvement is essential. What tools and information should be offered to preservice and inservice teachers to prepare them to create such a culture in their classrooms and schools?

Session Number 71 **Woodbridge**
6 - 12 Grade Level Focus

MathNerds and the Development of Mathematical Knowledge for Teaching

Laura O. Cavey, *James Madison University*
W. Ted Mahavier, *Lamar University*

Come explore ways to facilitate the development of and understand the nature of mathematical knowledge for teaching. Participants will analyze questions from middle and high school students generated via online dialogues with prospective teachers to develop conjectures about the mathematical knowledge for teaching associated with each student's question.

Session Number 72 **Salon B**
Professional Development

Issues and Challenges in Professional Development: Teachers' Mathematical Knowledge for Teaching a Coherent Curriculum

Gail Burrill, *Michigan State University*
Joan Ferrini-Mundy, *Michigan State University*

The purpose of this session is to share one perspective on mathematical knowledge for teaching in the context of providing professional development for teachers in PROM/SE, an NSF Math Science Partnership project housed at Michigan State University, related to coherent and well-articulated mathematics curriculum trajectories and to involve participants in considering some of the issues.

Session Number 73 **Quail Hill**
Teacher Content Knowledge

Exploring Prospective Elementary Teachers' Mathematical Knowledge for Teaching

LouAnn Lovin, *James Madison University*
Les Bolt, *James Madison University*

This session will share data and preliminary conclusions from a long term study that assesses teachers' mathematical knowledge for teaching. We will share insights into questions such as how do incoming preservice teachers vary across different types of institutions in their content knowledge for teaching, and are there differences between mathematics majors and students taking content courses in preparation for teaching?

Breaking Down Barriers to Providing Challenging Mathematics for All Students

Tina L. Johnston, *Oregon State University*

Seeking issues that plague middle schools when grouping math classes, a study was conducted to examine differences between ability grouping and heterogeneous grouping. The problems voiced by involved parties (parents, teachers, administrators) and how they worked to resolve them will be presented. The discussion will examine how results can be used to aid in making challenging math available to all students.

Judith E. Jacobs Lecture
5:00 – 6:30 p.m.
Salon D & E

The Core and Contemporary Challenges of Mathematics Teacher Education

Deborah Loewenberg Ball, *University of Michigan*

This country has a large and pressing need for skillful teachers of mathematics. Addressing this need is a problem both of scale and detail, for learning to teach mathematics is not a natural extension of learning mathematics; it is in fact unnatural. What is involved in being able to teach mathematics and what does this imply for our work as teachers and teacher educators in the contemporary environment?

Dinner
6:30 – 8:00 p.m.
Salon A & C

Overview of Saturday Morning, January 27, 2007

	8:00 - 9:30	9:45 - 10:15	10:30 - 11:00	11:15 - 12:15
Saddleback	74. Sharpening Teaching Ability in Mathematics Classrooms – Wu, An	85. Mathematical Pedagogical Knowledge Acquired by Future Teachers: Lessons Learned by Teaching Mathematics in Elementary Grades with the Use of Tablet PC Technology – Kosheleva	96. Strengthening the Mathematical Knowledge for Teaching of Preservice and Inservice Teachers – Liebars	107. Specifying Adaptive Routines of Practice: Working to Advance Instructional Planning and Enactment for Elementary Mathematics Teachers – Kazemi, Hubbard, Kelley-Peterson, Hintz
Trabuco	75. Recording the Use of Records of Practice: Math Teacher Educators Learning from Each Other – Morris, Franke, Remillard, Marks, Boerst	86. What Preservice Teachers Really Know: Questions that Uncover – Upton	97. Addressing Mathematical Achievement through Teacher Knowledge: The Creation of a Professional Mathematics Community Continuum (MCC) – Brown, Benken	108. Complexities of Teaching about Mathematics Teaching: Pedagogical Content Knowledge for Teacher Educators – Chauvot, Mewborn, Sztajn
Pelican Hill	76. Studying Alternative Certification in Mathematics: A Tale of Two Research Projects – Lannin, Chval, Arbaugh, Appova, Nivens, Olson, Pomerenke	87. Developing Algebraic and Geometric Sense in the Mathematics Curricula in Bulgaria and Russia, Grades 4-8 – Dobrynina	98. Is Teaching Mathematics for Me? The Benefits of Early Field Experiences for Mathematics Teacher Education Candidates – Howard, Rogers, Pickreign	109. Using Reform-based Curricula to Deepen Prospective Elementary School Teachers' Content and Pedagogical Content Knowledge – Wells, Billings
Shady Canyon	77. Supporting Teacher Educators' Efforts to Develop Students' Ability to Reason – Kline, Grant	88. Lesson Study for Preservice Teachers: The Westwood Heights Initiative – Althoen, Wyneken	99. Increasing Middle School Teacher Content and Pedagogical Knowledge of Algebra – Brown	110. NCATE and Performance Assessment: Their Impact on Methods Courses – O'Neal, Schrock
Conference Theatre	78. Developing a Framework for Mathematical Knowledge for Teaching at the Secondary Level – Heid, Kilpatrick, Wilson, Zbiek, Blume, Fox, Godine	89. Teachers as Professional Developers: Predicting Effectiveness – Warfield	100. JUMPSTART: A Program to Encourage More High School Math – Speer	111. Instruction for Mathematical Knowledge for Teachers of Elementary/Middle Grades – McLeod, Kepner, Luck, Pruske, Hedges
Oak Creek	79. Alternative Certification in Urban School Districts: The Case of the NYC Teaching Fellows – Meagher, Smith, Gonzalez, Cooley, Donoghue, Angulo, Chu, Haydar	90. Early Undergraduate Experiences in Middle School Classrooms – White, McCabe, Warshauer, Warshauer, Sorto	101. Factors in the Development of Students' Invented Multiplication Strategies – Zaleta	112. Connecting with Affiliates of AMTE - Szabo, Winters, Dougherty, Fry Bohlin, Hector
Woodbridge	80. Using TIMSS Videos to Improve Learning of Mathematics: A Resource Guide – Wang-Iverson, Askey, Liebars	91. Creating Model Mathematics Classrooms in Urban Schools – Smith, Newman	102. Preparing to Teach Mathematics with Technology: Prospective Teachers' Interpretations of Students' Mathematical Thinking – Hollebrands, Lee, Wilson	113. Frameworks and Tools for Supporting Preservice Teachers' Performance Aligned with NCATE Standards – Bay-Williams
Salon B	81. Professional Development from the Perspective of a Community of Practice – Coffey, Billings, Golden		103. Grading Policies as Teachable Moments for Mathematics – Peterson	114. Mentoring High School Teachers in Their Initial Use of GSP: Issues of Implementation – Shafer
Salon E	82. New Directions in Mathematics Teacher Education: Online, Competency-Based Programs at Western Governors University – Weinstein, Izumi, Linden, Caswell	93. The Mathematical Education of Elementary Teachers: The Content and Context of Undergraduate Mathematics Classes for Teachers – McCrory, Cannata	104. Some Misconceptions in Data Analysis and the Influence of a Particular Curriculum in Overcoming Them – Jacobbe	115. Assessing Students' Understanding of Whole Number Concepts – Canty, Rivette
Salon D	83. The Pedagogical Preparation of Prospective Secondary Mathematics Teachers – Romagnano, Burrill, Kepner, Ronau, Taylor	94. An Analysis of Middle School Teachers' Knowledge of Mathematics – Brown, Ronau, Karp, Bush, Thompson, McGatha	105. Turkish Preservice Secondary Mathematics Teachers' Views on the Utilization of Handheld Technology in Mathematics and Algebra Instruction – Asli Ozgun-Koca	116. How Can Practice-based Professional Development Help Teachers Learn Mathematics? – Silver, Ghousseini, Charalambous, Clark
Quail Hill	84. Exploring the Use of Mathematical Language in Practice: What do Teachers Need to Know? – Ball, Sleep	95. Coherence in Teacher Education: The Case of Polynomials – Bartlo, Nivens	106. Specialized Understanding of Mathematics: A Study of Prospective Elementary Teachers – Moss	117. Importance of Conducting Kyozaikenkyu During Lesson Study: Toward Improving Teachers' Pedagogical and Mathematical Content Knowledge – Yoshida, Watanabe

Session Number 74 **Saddleback**
K - 8 Professional Development

Sharpening Teaching Ability in Mathematics Classrooms

Zhonghe Wu, *National University*
Shuhua An, *California State University, Long Beach*

This study investigates the measurable criteria of teaching ability from classroom observations and examines how different types of teaching abilities impact learning outcomes. Three video lessons will be used for demonstrating how to measure teaching ability.

Session Number 75 **Trabuco**
Teacher Educator Development

Recording the Use of Records of Practice: Mathematics Teacher Educators Learning from Each Other

Kathy Morris, *Sonoma State University*
Megan Loef Franke, *University of California-Los Angeles*
Janine Remillard, *University of Pennsylvania*
Rick Marks, *Sonoma State University*
Timothy Boerst, *South Redford Schools/University of Michigan*

This interactive symposium focuses on two questions: How do we use multimedia records of teaching practice in our math methods course? How do make our own teacher education practices public through the construction of multimedia records of MTE practice? We will provide multiple examples of both from our Carnegie QUEST projects.

Session Number 76 **Pelican Hill**
6 - 12 Teacher Certification

Studying Alternative Certification in Mathematics: A Tale of Two Research Projects

John Lannin, *University of Missouri*
Kathryn Chval, *University of Missouri*
Fran Arbaugh, *University of Missouri*
Aina Appova, *University of Missouri*
Ryan Nivens, *University of Missouri*
Travis Olson, *University of Missouri*
Sarah Pomerenke, *University of Missouri*

Two research projects in Missouri study alternative certification of mathematics teachers through different lenses: educational policy and teacher knowledge. In this session we discuss the theoretical frameworks used in the projects. In addition, participants will have the opportunity to examine data-collection tools used in each project.

Session Number 77 **Shady Canyon**
K - 5 Teacher Education

Supporting Teacher Educators' Efforts to Develop Students' Ability to Reason

Kate Kline, *Western Michigan University*
Theresa J. Grant, *Western Michigan University*

Participants will explore curriculum materials designed for an elementary mathematics content course. In particular, they will engage in an activity aimed at determining what counts as a justification for a claim, discuss ideas for the support that may be helpful in implementing this activity, and analyze sample teacher notes.

Session Number 78 **Conference Theatre**
9 - 12 Teacher Education

Developing a Framework for Mathematical Knowledge for Teaching at the Secondary Level

M. Kathleen Heid, *The Pennsylvania State University*
Jeremy Kilpatrick, *University of Georgia*
Patricia Wilson, *University of Georgia*
Rose Mary Zbiek, *The Pennsylvania State University*
Glen Blume, *The Pennsylvania State University*
Ryan Fox, *University of Georgia*
Heather Godine, *The Pennsylvania State University*

In seeking to understand the construct of mathematical knowledge for teaching (MKT) as it might be applied to secondary-school mathematics, we have developed a variety of sample situations and a framework. Participants in this work session will work with the situations and framework and discuss implications for teacher education.

Session Number 79 **Oak Creek**

Alternative Certification in Urban School Districts: The Case of the NYC Teaching Fellows

Michael Meagher, *Brooklyn College/CUNY*
Beverly Smith, *City College of New York/CUNY*
Lidia Gonzalez, *CUNY Graduate Center*
Laurel Cooley, *Brooklyn College/CUNY*
Eileen Donoghue, *College of Staten Island/CUNY*
Nieves Angulo, *Hostos Community College/CUNY*
Haiwen Chu, *CUNY Graduate Center*
Hanna Haydar, *Brooklyn College/CUNY*

In this session we will present a number of studies each of which examines, from a different perspective, the experience of alternatively certified teachers teaching mathematics in urban schools. More specifically, we will look at teachers training under the auspices of the New York City Teaching Fellows (NYCTF) program and their experiences working in New York City Public Schools.

Session Number 80 **Woodbridge**
6 - 12 Professional Development

Using TIMSS Videos to Improve Learning of Mathematics: A Resource Guide

Patsy Wang-Iverson, *Gabriella and Paul Rosenbaum Foundation*
Richard Askey, *University of Wisconsin-Madison*
Cathy Liebars, *The College of New Jersey*

At the 2005 AMTE conference, participants provided recommendations for the development of a resource guide to accompany the TIMSS mathematics videos. This working group session provides an update by presenting the resource guide that is now available online and a focus on geometry in the next phase of the project.

Session Number 81 **Salon B**
Professional Development

Professional Development from the Perspective of a Community of Practice

David Coffey, *Grand Valley State University*
Esther Billings, *Grand Valley State University*
John Golden, *Grand Valley State University*

Presenters introduce a framework representing connections between multiple learning layers (student, teacher, professional and developer) and various stages of community (place, learning, and practice) through professional development efforts implementing practice-based models. The framework allows participants to reflect on and extend their own professional development efforts to a community of practice.

Session Number 82 **Salon E**
Mathematics Education Programs

New Directions in Mathematics Teacher Education: Online, Competency-Based Programs at Western Governors University

Gideon Weinstein, *Western Governors University*
Alisa Izumi, *Western Governors University*
Kara Vander Linden, *Western Governors University*
Lisa Caswell, *Western Governors University*

With more than five hundred mathematics education students, our Teachers College offers initial- and post- licensure programs. This symposium presents new directions in improving quality and expanding access to credible programs through competency-based approaches. We will share "best practices" that other institutions can incorporate to improve teacher education.

Session Number 83 **Salon D**
6 - 12 Teacher Preparation

The Pedagogical Preparation of Prospective Secondary Mathematics Teachers

Lew Romagnano, *The Metropolitan State College of Denver*
Gail Burrill, *Michigan State University*
Henry Kepner, *University of Wisconsin-Milwaukee*
Robert Ronau, *University of Louisville*
P. Mark Taylor, *University of Tennessee*

The purpose of this symposium is to contribute to the field's understanding of what are commonly referred to as "methods" courses for prospective secondary mathematics teachers. What theories and principles guide the design and enactment of these courses? Presenters will offer several perspectives.

Session Number 84 **Quail Hill**
Teacher Preparation

Exploring the Use of Mathematical Language in Practice: What Do Teachers Need to Know?

Deborah Loewenberg Ball, *University of Michigan*
Laurie Sleep, *University of Michigan*

This session investigates teachers' use of mathematical language as one element of knowing mathematics for teaching. Using classroom video segments, we will first examine mathematical language issues that arise in teaching and consider the mathematical knowledge demands of using mathematical language in practice. We will then discuss tasks used in our content and methods courses to work on issues of mathematical language with prospective teachers.

Session Number 85 **Saddleback**
K - 8 Technology

Mathematical Pedagogical Knowledge Acquired by Future Teachers: Lessons Learned by Teaching Mathematics in Elementary Grades with the Use of Tablet PC Technology

Olga Koshelva, *University of Texas at El Paso*

Typically Tablet PCs are used as an effective tool for grading, and preparing and delivering presentations. We went a little bit further, using Tablet PCs and specialized software to design and teach innovative mathematical lessons in elementary classrooms. We will discuss interesting and unexpected mathematical educational outcomes of our study.

Session Number 86 **Trabuco**
6 - 12 Teacher Preparation

What Preservice Teachers Really Know - Questions that Uncover

Deborah Upton, *Stonehill College*

This session describes a set of questions used in a course for preservice middle school and high school teachers that proved constructive in discovering and addressing conceptual misunderstandings of key mathematical ideas. Students' solutions will be presented and discussed in terms of their implications for teacher education and professional development.

Session Number 87 **Pelican Hill**
4-8 Grade Level Focus

Developing Algebraic and Geometric Sense in the Mathematics Curricula in Bulgaria and Russia, Grades 4-8

Galina Dobrynina, *Wheelock College*

Bulgaria and Russia have long been known for excellent mathematics high school education. Mathematics is also interesting in upper elementary and middle school from curriculum and teaching perspectives. Presenters will demonstrate and discuss problems from Bulgarian and Russian textbooks that interweave algebra, geometry and measurement ideas.

Session Number 88 **Shady Canyon**
K - 5 Teacher Preparation

Lesson Study for Preservice Teachers: The Westwood Heights Initiative

Steve Althoen, *University of Michigan-Flint*
Matthew Wyneken, *Grand Valley State University*

This session will provide information about a required course developed in which university students engage in lesson study through the development/presentation/revision/representation of seven lessons in K – 5 classrooms.

Session Number 89 **Conference Theatre**
Professional Development

Teachers Becoming Staff Developers

Janet Warfield, *Illinois State University*

This presentation will provide information about a project designed to prepare selected teachers to lead professional development for others, thus increasing the number of available staff developers. We will present our findings focusing on two of the teachers – the one we assessed to be the most effective and the one we assessed to be the least effective. We will also discuss how we used our findings to select teachers to become staff developers.

Session Number 90 **Oak Creek**
6 - 8 Teacher Preparation

Early Undergraduate Experiences in Middle School Classrooms

Alex White, *Texas State University-San Marcos*
Terence McCabe, *Texas State University-San Marcos*
Max Warshauer, *Texas State University-San Marcos*
Hiroko Warshauer, *Texas State University-San Marcos*
Alejandra Sorto, *Texas State University-San Marcos*

This project provides an early teaching experience for undergraduates to work with students and teachers in middle school classrooms. We include video clips of undergraduate reflections that highlight lessons learned, benefits to the participants, and how it is being incorporated into our teacher preparation program.

Session Number 91 **Woodbridge**
6 - 12, University Focus

Creating Model Mathematics Classrooms in Urban Schools
Beverly Smith, *The City College of New York*
Eric Newman, *The City College of New York*

How can a school/college partnership support the development and use of "technology/resource rich model mathematics classrooms" in urban schools? Participants will learn how a model mathematics classroom project impacted the teaching and learning in partnership high schools and college classrooms. Participants will discuss future goals for model mathematics classrooms.

Session Number 93 **Salon E**
K - 8 Teacher Preparation

The Mathematical Education of Elementary Teachers: The Content and Context of Undergraduate Mathematics Classes for Teachers

Raven McCrory, *Michigan State University*
Marisa Cannata, *Michigan State University*

What mathematics classes are required for prospective elementary teachers? Who teaches them, what's their content, where are they in students' programs, what textbooks do they use, and how much variation is there across institutions? These and other questions will be discussed based on results from 75 institutions in three states.

Session Number 94 **Salon D**
6 - 8 Teacher Content Knowledge

An Analysis of Middle School Teachers' Knowledge of Mathematics

E. Todd Brown, *University of Louisville*
Robert Ronau, *University of Louisville*
Karen Karp, *University of Louisville*
William Bush, *University of Louisville*
Charles Thompson, *University of Louisville*
Maggie McGatha, *University of Louisville*

This session reports results from research on mathematics middle school teachers' performance on mathematics assessments developed by faculty and staff at the University of Louisville Center for Research on Mathematics and Science Teacher Development. Assessments from 1100 teachers who completed pre- and post-assessments were analyzed with respect to performance patterns and item characteristics.

Session Number 95 **Quail Hill**
6 - 12 Teacher Preparation

Coherence in Teacher Education: The Case of Polynomials

Joanna Bartlo, *Portland State University*
Ryan Nivens, *University of Missouri-Columbia*

Many teachers see activities such as content courses and vertical articulation as disconnected. Therefore, these activities are not likely to explicitly impact classroom practices as anticipated. In this session, we will discuss ways to help connect these activities for teachers. We will do so by using polynomials as an example.

Session Number 96 **Saddleback**
K - 8 Teacher Preparation

Strengthening the Mathematical Knowledge for Teaching of Preservice and Inservice Teachers

Cathy Liebars, *The College of New Jersey*

With grant funding, several undergraduate- and graduate-level courses were created at The College of New Jersey to enhance the mathematical preparation of preservice and inservice teachers. This session will provide information about the courses and promising early results from the grants.

Session Number 97 **Trabuco**
Teacher Development

Addressing Mathematical Achievement through Teacher Knowledge: The Creation of a Professional Mathematics Community Continuum (MCC)

Nancy Brown, *Oakland University in Michigan*
Babette Benken, *California State University-Long Beach*

This project examines professional learning based on efforts to create a university-school collaborative partnership. Within this community continuum we use mathematics as a content vehicle and an inner-city public school as a ripe context to study teaching, learning, and development that leads to students' improved mathematical achievement.

Session Number 98 **Pelican Hill**
Teacher Education

Is Teaching Mathematics for Me? The Benefits of Early Field Experiences for Mathematics Teacher Education Candidates

Keary Howard, *SUNY Fredonia*
Robert Rogers, *SUNY Fredonia*
Jamar Pickreign, *SUNY Fredonia*

Recent shifts in teacher education programs have called for including more field-based experiences for prospective teachers. Such experiences in introductory courses can contribute to helping them determine whether teaching is for them. We discuss insights, pitfalls and strategies for implementing early field experiences into introductory courses for mathematics teacher education.

Session Number 99 **Shady Canyon**
6 - 8 Teacher Development

Increasing Middle School Teacher Content and Pedagogical Knowledge of Algebra

Sue Brown, *University of Houston-Clear Lake*

The presentation will describe the 12-month program focusing on the impact of the program on inservice middle school teachers and their students. The presenter will provide examples of recruiting techniques, marketing brochures, course syllabi, manipulative and print resources, teacher assessments, examples of student work, and student assessment data.

Session Number 100 **Conference Theatre**
9 - 12 Grade Leve Focus

JUMPSTART: A Program to Encourage More High School Math

William Speer, *University of Nevada Las Vegas*

JUMPSTART is a variation on successful early placement testing programs established in Ohio and North Carolina to encourage high school juniors to take more and better math during the senior year. The session will discuss factors in Nevada's pilot project program - a collaborative between the Nevada System of Higher Education and the fifth largest school district in the country - Clark County SD (Las Vegas).

Session Number 101 **Oak Creek**
K - 5 Grade Level Focus

Factors in the Development of Students' Invented Multiplication Strategies

Christopher Kribs Zaleta, *University of Texas at Arlington*

Conceptual and physical models for operations have a profound influence on the sometimes unexpected symbolic computational strategies children develop. An important task of teachers is the analysis of such unusual approaches. This talk reviews models and approaches for multiplication and uses some interesting examples to abstract the particular factors that most shape invented strategies for it.

Session Number 102 **Woodbridge**
K - 5 Grade Level Focus

Preparing to Teach Mathematics with Technology: Prospective Teachers' Interpretations of Students' Mathematical Thinking

Karen Hollebrands, *North Carolina State University*
Hollylynne Stohl Lee, *North Carolina State University*
Holt Wilson, *North Carolina State University*

During this session we will share findings related to prospective teachers' use of a videocase to analyze students' mathematical thinking in a technological environment.

Session Number 103 **Salon B**
K - 8 Teacher Development

Grading Policies as Teachable Moments for Mathematics

Naomi Peterson, *Central Washington University*

This is a brief research report updating the psychometric investigation of a promising new instrument, the Mathematics Teaching Profile (MTP), intended to measure an orientation to the 'teaching for mathematics proficiency' model suggested by Kilpatrick, Swafford, and Findell (2001) in *Adding It Up*.

Session Number 104 **Salon E**
K - 5 Grade Level Focus

Some Misconceptions in Data Analysis and the Influence of a Particular Curriculum in Overcoming Them

Tim Jacobbe, Clemson University

The misconceptions teachers possess regarding data analysis topics at the third- and fourth-grade levels will be discussed. One particular example will be presented where a teacher possessed misconceptions regarding a specific data topic. This misconception was corrected through professional development as displayed in the teaching of a lesson two days after the training. However, after only a week had passed, the teacher was introducing her original misconception in the lesson to the students.

Session Number 105 **Salon D**
9 - 12 Teacher Preparation

Turkish Preservice Secondary Mathematics Teachers' Views on the Utilization of Handheld Technology in Mathematics and Algebra Instruction

S. Asli Ozgan-Koca, *Wayne State University*

In order to observe the effects of new kinds of technologies on students' learning of mathematics, teachers need to decide whether it is reasonable to do/learn/teach mathematics with a calculator, and moreover, if graphing calculators are worth using in their classrooms. With this aim in mind, this study involved Turkish preservice secondary mathematics teachers to investigate their views on the utilization of graphing calculators and CAS in mathematics instruction.

Session Number 106 **Quail Hill**
K - 5 Teacher Preparation

Specialized Understanding of Mathematics: A Study of Prospective Elementary Teachers

Meg Moss, *Pellissippi State Technical Community College*

This study of 244 prospective elementary teachers analyzes the mathematical understanding at the beginning and end of their methods course. Strengths and weaknesses in their understanding, relationships to content courses, growth during the methods course, and learning opportunities that may improve content understanding will be shared.

Session Number 107 **Saddleback**
K - 5 Teacher Preparation

Specifying Adaptive Routines of Practice: Working to Advance Instructional Planning and Enactment for Elementary Mathematics Teachers

Elham Kazemi, *University of Washington*
Amanda Hubbard, *University of Washington*
Megan Kelley-Petersen, *University of Washington*
Allison Hintz, *University of Washington*

This workgroup session will explore how mathematics teacher educators can begin to specify the core tasks of teaching by developing adaptive routines of practice. Participants will collectively brainstorm ideas for the development of adaptive routines for teaching mathematics.

Session Number 108 **Trabuco**
Mathematics Teacher Educators

Complexities of Teaching about Mathematics Teaching: Pedagogical Content Knowledge for Teacher Educators

Jennifer Chauvot, *University of Houston*
Denise S. Mewborn, *University of Georgia*
Paola Sztajn, *University of Georgia*

The purpose of this session is to elicit discussion regarding pedagogical content knowledge for mathematics teacher educators: what it may be, and what it may look like in our courses. We provide two perspectives followed by two respondents putting the perspectives in a larger context, and raising questions for discussion.

Session Number 109 **Pelican Hill**
K - 8 Teacher Preparation

Using Reform-based Curricula to Deepen Prospective Elementary School Teachers' Content and Pedagogical Content Knowledge

Pamela Wells, *Grand Valley State University*
Esther Billings, *Grand Valley State University*

Explore how using reform-based K - 8 curricula can deepen prospective elementary teachers' knowledge. Uses include: extending activities to deepen content knowledge and address common misconceptions and exploring pedagogical content issues by analyzing and modifying activities to ascertain mathematical goals, analyze sequencing of tasks, and create questions to deepen children's mathematical understanding.

Session Number 110 **Shady Canyon**
Teacher Education

NCATE and Performance Assessment: Their Impact on Methods Courses

Judy O'Neal, *North Georgia College & State University*
Connie Schrock, *Emporia State University*

Learn how institutions of two different sizes incorporate performance-based assessments that target NCTM-NCATE standards in methods courses for undergraduates and post-baccalaureate students. Be prepared to share ideas of how your department meets this challenge.

Session Number 111 **Conference Theatre**
K - 5 Teacher Preparation

Instruction for Mathematical Knowledge for Teachers of Elementary/Middle Grades

Kevin McLeod, *University of Wisconsin-Milwaukee*
Henry Kepner, *University of Wisconsin-Milwaukee*
Gary Luck, *University of Wisconsin-Milwaukee*
Lee Ann Pruske, *University of Wisconsin-Milwaukee*
Melissa Hedges,*University of Wisconsin-Milwaukee*

A design team of mathematics faculty, classroom teachers, and math educators construct, team-teach, and revise mathematics content and methods courses for prospective elementary/middle grades teachers. This session will include reflections from each perspective on focusing students toward mathematical aspects that drive instruction, demonstration of the interactions of design team members in course development, team-teaching pilots, interactions with students, and course-sequence revision, and a report of early data collection on these students.

Session Number 112 **Oak Creek**
Special Invited Session

Connecting with Affiliates of AMTE
Session Facilitators
Tamas Szabo, *Weber State University, UAMTE*
Jeremy Winters, *Middle Tennessee State University, TAMTE*
Barbara J. Dougherty, *University of Mississippi*

Small-group Leaders
Carol Fry Bohlin, *California State University Fresno, CAMTE* (President/Vice-President Group)
Judy Hector, *Walters State Community College*, TAMTE (Secretary Group)
Jeremy Winters, *Middle Tennessee State University*, TAMTE (Treasurer Group)

Are you interested in establishing an affiliate group in your state? Interested in improving collaboration between AMTE and its affiliates? Want to discuss issues about existing affiliates with other states? If so, this is a session where you can meet with officers and others from affiliates in small-group sessions.

Session Number 113 **Woodbridge**
K-12 Teacher Education

Frameworks and Tools for Supporting Preservice Teachers' Performance Aligned with NCATE Standards

Jennifer Bay-Williams, *University of Louisville*

This session will briefly introduce Charlotte Danielson's framework and a multitude of templates that can be used to assess preservice teachers across the NCATE Standards, including assessments related to technology, diversity, and classroom practices. Participants will have an opportunity to share performance tasks they have found to be successful.

Session Number 114 **Salon B**
9 - 12 Teacher Development

Mentoring High School Teachers in Their Initial Use of GSP: Issues of Implementation

Kathryn Shafer, *Bethel College*

This session will focus on roadblocks to the implementation of GSP in a typical geometry course. Issues include teachers' beliefs regarding the nature of mathematics (and the teacher's role), goals for instruction and level of content knowledge - including technological pedagogical content knowledge (TPCK). Suggestions for further research will be discussed.

Session Number 115 **Salon E**
K - 5 Grade Level Focus

Assessing Students' Understanding of Whole Number Concepts

Reality Canty, *University of Illinois at Chicago*
Kelly Rivette, *University of Illinois at Chicago*

A multi-dimensional approach assessing what K - 5 students in an NSF-supported mathematics curriculum, Math TrailBlazers, understand about whole number concepts will be presented. Rubrics were developed to assess four dimensions of student understanding (i.e., accuracy, reasoning, flexibility, and communication) which will be shared with participants. Descriptions and explanations of the rubrics will be supported by videotaped student interviews. Participants will have an opportunity to code the interviews using these rubrics.

Session Number 116 **Salon D**
Professional Development

How Can Practice-based Professional Development Help Teachers Learn Mathematics?

Edward Silver, *University of Michigan*
Hala Ghousseini, *University of Michigan*
Charalambos Charalambous, *University of Michigan*
Lawrence Clark, *University of Michigan*

Practice-based professional development promotes teacher learning through engagement with authentic tasks of teaching. Nevertheless, it is not immediately obvious how teachers can learn mathematics in this way. In this presentation we illustrate several ways that practice-based, professional learning tasks can make available opportunities for teachers to enhance their mathematical knowledge.

Session Number 117 **Quail Hill**
Professional Development

Importance of Conducting Kyozaikenkyu During Lesson Study: Toward Improving Teachers' Pedagogical and Mathematical Content Knowledge

Makoto Yoshida, *Global Education Resources*
Tad Watanabe, *Kennesaw State University*

How can we improve teachers' content knowledge, classroom teaching, and student learning through lesson study? Learning to conduct Kyozaikenkyu (instructional material investigation) effectively during lesson study is one answer. In this session participants will learn how to conduct Kyozaikenkyu through exploration of topics of area of plane figures.

Overview of Saturday Afternoon, January 27, 2007

	1:30 – 2:30	2:45 – 3:15
Saddleback	118. Applying Preservice Teachers' Learning to Real Classroom Teaching Using the MSA Approach - An, Wu	
Trabuco	119. The Issue of Professional Practice: How Do We Define It for Promotion and Tenure? - Mathews, Reed, Farrell, Mercer	129. Teachers' Participation in Professional Development Offerings: Barriers and Benefits – Pugalee
Pelican Hill	120. Collaborating to Develop a Mathematics Preparation Program for Prospective Elementary Teachers – Lynch-Davis, Goodson-Espy, Quickenton, Salinas, Schram, Wenta	130. Effective and Dynamic Content Institute Professional Development for Grade 6 - 8 Teachers – Tsankova, Dobrynina
Shady Canyon	121. The Rubric Cube – Haas, Bradley	131. Using Standards-based Mathematics Curricula in Teacher Education – Diaz
Conference Theatre	122. Using Unit Planning to Assist Teachers in the Instruction of Math to English Language Learners – Krinsky, Newton, Wilkins	132. Advanced Mathematics Portfolios as Tools for Addressing the NCATE/NCTM Standards for High School Teacher Candidates – Koirala, Johnson
Oak Creek	123. More Robust Mathematical Discussion – Mendez Results of a New Content Course for Preservice Teachers: Advanced Concepts of Middle School Mathematics – Gonske	133. Forming a Mathematical Learning Community Using Interactive TV (ITV) and Distance Learning – Sorto, McCabe, Warshauer, Warshauer
Woodbridge	124. Supporting Teacher Educator Learning through Lesson Study: A Cross-institution Model – Wilkerson, Eddy, Marble, Cooper	134. Interactive School Mathematics: Implications for Teaching and Learning Middle School Mathematics – Masalski
Salon B	125. The Transformation of Secondary Preservice Teachers' Mathematical Knowledge in a Capstone Course – Winsor The Tale of a Mathematics-Library Science Learning Community – Peterson	135. Teachers' Conceptions of Problem Solving while Participating in a Professional Development Program – Poetzl
Salon E	126. Teacher Education within the National Science Foundation – Sztajn	
Quail Hill	128. What Mathematics Kentucky Preservice Middle School Teachers Are Expected to Know – Bush, McGatha First- and Second- Order Knowledge as a Framework for Studying Mathematics Teacher Development – Silverman	136. Professional Development of Secondary Teachers - Three Case Studies – Klespis

Closing Session
Salon D
3:30 – 4:30 p.m.

Business Meeting
Salon D
4:30 – 5:30 p.m.

NOTES

Session Number 118 **Saddleback**
K - 8 Teacher Preparation

Applying Preservice Teachers' Learning to Real Classroom Teaching Using the MSA Approach

Shuhua An, *California State University, Long Beach*
Zhonghe Wu, *National University*

This presentation demonstrates how to integrate the MSA model in teaching mathematics methods courses and addresses how to bridge preservice teachers' knowledge to classroom teaching by designing and assessing children's learning using the MSA models.

Session Number 119 **Trabuco**
Teacher Educator Issues

The Issue of Professional Practice: How Do We Define It for Promotion and Tenure?

Susann Mathews, *Wright State University*
Michelle Reed, *Wright State University*
Ann Farrell, *Wright State University*
Richard Mercer, *Wright State University*

In this session we will facilitate defining and discussing "professional practice."

Session Number 120 **Pelican Hill**
K - 8 Teacher Preparation

Collaborating to Develop a Mathematics Preparation Program for Prospective Elementary Teachers

Kathleen Lynch-Davis, *Appalachian State University*
Tracy Goodson-Espy, *Appalachian State University*
Art Quickenton, *Appalachian State University*
Tracie Salinas, *Appalachian State University*
Pam Schram, *Appalachian State University*
Bob Wenta, *Appalachian State University*

This session focuses on the collaboration between a Mathematics and an Education department to develop a mathematics preparation program for our elementary education majors. The participants will engage in discussions about collaborations between mathematics and education departments and frameworks that guide the mathematical preparation of prospective elementary teachers.

Session Number 121 **Shady Canyon**
Teacher Preparation

The Rubric Cube

Sally M. Haas, *Angelina College*
Susan P. Bradley, *Angelina College*

As an alternate assessment tool, the Rubric Cube is designed to measure performance within each of the five NCTM process standards. Preservice teachers using the Rubric Cube integrate assessment into the learning process. Participants will construct cubes and apply 4-point rubrics to assess preservice teacher problem solving and understanding.

Session Number 122 **Conference Theatre**
Professional Development

Using Unit Planning to Assist Teachers in the Instruction of Math to English Language Learners

Eunice Krinksy, *California State University-Dominguez Hills*
Deandrea Newton, *CSU - Dominguez Hills*
John Wilkins, *CSU- Dominguez Hills*

Can we assist teachers in providing successful experiences for English Language Learners? Challenges of keeping mathematical and language cognitive levels high were met by a working partnership of mathematics and education faculty with school district personnel using unit planning in a Professional Development Institute. Process and preliminary results will be shared.

Session Number 123 **Oak Creek**

More Robust Mathematical Discussion

Edith Mendez, *Sonoma State University*

This session presents a tool for analyzing classroom discourse. By looking separately at aspects of mathematics and of discussion, teachers can focus on critical features. For professional development, this tool can help teachers think more deeply about the mathematics and student interactions in their classrooms.

Results of a New Content Course for Preservice Teachers: Advanced Concepts of Middle School Mathematics

Teresa Gonske, *Northwestern College (MN)*

Presentation of outcomes from a new course designed for preservice teachers to explore and deepen their understanding of mathematics concepts taught in the middle grades. We will discuss course structure, learning environment, examples of activities, samples from students' personal learning logs, affective transformations, and observed effect on success in higher-level math courses.

Session Number 124 **Woodbridge**
Mathematics Teacher Educators

Supporting Teacher Educator Learning through Lesson Study: A Cross-institution Model

Trena Wilkerson, *Baylor University*
Colleen Eddy, *University of North Texas*
Stephen Marble, *Southwestern University*
Sandi Cooper, *Texas Tech University*

Can lesson study be an effective professional development approach for mathematics teacher educators? A panel will discuss results of a cross-institution project addressing implementation, collaborative construct, and impact on mathematics content and pedagogy. Participants will engage in dialogue around these areas to examine potential impact on mathematics teacher education.

Session Number 125 **Salon B**
Teacher Preparation

The Transformation of Secondary Preservice Teachers' Mathematical Knowledge in a Capstone Course

Mathew Winsor, *The University of Texas at El Paso*

This session will present data that hints at how secondary preservice teachers' mathematical knowledge evolves into mathematical knowledge for teaching during participation in a capstone course as recommended by the Conference Board of Mathematical Sciences.

The Tale of a Mathematics-Library Science Learning Community

Winnie J. Peterson, *Kutztown University*

The organization, requirements, and benefits of a mathematics-library science learning community will be shared. Phototgraphs, student comments and samples of the "Book in a Bag" project will be included.

Session Number 126 **Salon E**
Special Invited Presentation

Teacher Education within the National Science Foundation

Paola Sztajn, *National Science Foundation*

This presentation discusses the new Discovery Research K-12 program from the National Science Foundation and provides an overview of funding opportunities for mathematics teacher education within the Foundation.

Session Number 128 **Quail Hill**
Teacher Content Knowledge

What Mathematics Kentucky Preservice Middle School Teachers Are Expected to Know

William Bush, *University of Louisville*
Maggie McGatha, *University of Louisville*

This session provides a summary of analyses of the assessments administered in mathematics courses required of middle school mathematics majors in six Kentucky universities. The analysis describes and compares the breadth and depth of mathematics knowledge assessed in these courses. Implications for teacher preparation and research will be provided.

First- and Second-order Knowledge as a Framework for Studying Mathematics Teacher Development

Jason Silverman, *Drexel University*

In this session we will discuss a framework for studying mathematics teacher development that is grounded in the notions of first-order knowledge, knowledge that individuals construct that is inaccessible to others, and second-order knowledge, explanatory models of individuals' knowledge. Two cases that highlight the importance of teachers' differentiating between first- and second- order knowledge as well as the difficulty and subtlety of this distinction will be discussed.

Session Number 129 **Trabuco**
Professional Development

Teachers' Participation in Professional Devleopment Offerings: Barriers and Benefits

David Pugalee, *UNC Charlotte*

Results of a study designed to increase participation in professional devleopment offerings will be reported. Barriers and benefits to participation will be discussed and session participants will engage in identifying potential solutions.

Session Number 130 **Pelican Hill**
6 - 8 Professional Development

Effective and Dynamic Content Institute Professional Development for Grade 6 - 8 Teachers

Jenny K. Tsankova, *Roger Williams University*
Galina Dobrynina, *Wheelock College*

Presenters will demonstrate how a content institute for inservice teachers (grades 6 - 8) promotes and assesses understanding of key mathematical ideas of inservice teachers and improves teaching practices. A sample of an approved proposal including rationale, scope and sequence, day-by-day syllabus, and an assessment tool will be provided and discussed.

Session Number 131 **Shady Canyon**
K - 8 Teacher Preparation

Using Standards-based Mathematics Curricula in Teacher Education

Donna Diaz, *Clemson University*

In this session learn about a number of innovative, NSF-funded projects in which standards-based school curricula are adapted for use in preparing preservice and developing inservice teachers.

Session Number 132 **Conference Theatre**
9 - 12 Teacher Preparation

Advanced Mathematics Portfolios as Tools for Addressing the NCATE/NCTM Standards for High School Teacher Candidates

Hari Koirala, *Eastern Connecticut State University*
Pete Johnson, *Eastern Connecticut State University*

This session will focus on how the NCATE/NCTM program standards for teacher candidates are addressed through mathematics portfolios in an advanced mathematics course. A detailed course syllabus, portfolio rubric, and some sample portfolio entries with scores rated by two professors (mathematics and mathematics education) will be shared and discussed.

Session Number 133 **Oak Creek**
6 - 8 Professional Development
Forming a Mathematical Learning Community Using Interactive TV (ITV) and Distance Learning

Alejandra Sorto, *Texas State University-San Marcos*
Terence McCabe, *Texas State University-San Marcos*
Hiroko Warshauer, *Texas State University-San Marcos*
Max Warshauer, *Texas State University-San Marcos*

We describe how faculty from Texas State University-San Marcos worked in collaboration with middle school teachers in McAllen, TX as part of a Math-Science Partnership grant through Park City Math Institute. ITV supported weekly meetings with teachers from two middle schools, in combination with site visits and summer programs.

Session Number 134 **Woodbridge**
6 - 8 Grade Level Focus
Interactive School Mathematics: Implications for Teaching and Learning Middle School Mathematics

Bill Masalski, *University of Massachusetts*

This presentation will address the implications of emerging technologies for future teaching and learning environments by having participants experience a conceptually new, completely computer-based and interactive-technology-driven approach to teaching and learning middle school mathematics that fuses mathematics and technology and empowers students to explore mathematics and challenge assumptions.

Session Number 135 **Salon B**
6 - 8 Professional Development
Teachers' Conceptions of Problem Solving while Participating in a Professional Development Program

Christine Poetzl, *University of Delaware*

This session will engage the audience in a discussion of ways teachers conceptualize problem solving and their students' abilities to problem solve, and effective ways teacher educators can support teachers in their problem solving instruction. The results of a study of teachers' conceptions of problem solving will be described.

Session Number 136 **Quail Hill**
9 - 12 Professional Development
Professional Development of Secondary Teachers - Three Case Studies

Mark Klespis, *Sam Houston State University*

An NSF-funded project consisted of 33 high school mathematics teachers who had been certified through various alternative certification programs. The presenter served as a university faculty mentor for 11 of these secondary teachers and will share three case studies of this work.

Closing Session — Salon D, 3:30 – 4:30 p.m.

The Intended Mathematics Curriculum as Represented in State-Level Curriculum Standards: Consensus or Confusion?

Barbara Reys, *University of Missouri-Columbia*
Glenda Lappan, *Michigan State University*

Forty-two states have developed grade-by-grade learning goals for K - 8 mathematics, many within the last few years. The organization, language and grade placement of these learning goals differs across states and it is our hunch that these differences will increase the likelihood of curriculum materials that lack focus and depth. This session will highlight the status of curriculum articulation in the U.S. and discuss implications for teacher preparation and professional development.

AMTE Business Meeting — Salon D, 4:30 – 5:30 p.m.

Come Learn About What AMTE Is Doing

and

How You Can Get Involved.

Presiding: Sid Rachlin, East Carolina University
President, AMTE

Note: Door prizes (Browsing Room materials) will be distributed at the end of the Business Meeting.

AMTE Annual Meeting 2007
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AMTE's Twelfth Annual Conference, January 2008

We invite you to plan to attend and speak at next year's Twelfth Annual AMTE Conference, to be held January 24 - 26, 2008, at the Renaissance Tulsa Hotel and Convention Center in Tulsa, Oklahoma.

The *Call for Proposals* will be available on the AMTE website (www.amte.net) by February 19, 2007, and in the next issue of *AMTE Connections*. Connie Schrock of Emporia State University will be the Program Chair, and Carol Lucas of the University of Central Oklahoma will be the Local Arrangements Chair. The deadline for submitting proposals is May 21, 2007.

We hope to see you there!

The 2009 Conference will be held somewhere in the eastern United States—stay tuned for more information!

AMTE Events at the 2007 NCTM and NCSM Annual Conferences in Atlanta, GA

AMTE Special Interest Session at the NCSM Conference
Wednesday, March 21, 2007
2:45 – 4:15 pm
GWCC Room 401

AMTE Reception at the NCTM Conference
Thursday, March 22, 2007
6:00 - 7:30 pm
Omni Hotel
International Ballroom D
All members and interested persons are invited to attend.

For information on membership and other AMTE activities,
please see ***www.amte.net***.

AMTE Committees for 2006 – 2007

STANDING COMMITTEES

Awards Committee

Tasks: Solicits nominations and selects AMTE members for awards recognizing outstanding teaching, research, and service in mathematics teacher education.

Tom Bassarear, Keene State College, Keene, NH; **Board Liaison;** tbassare@keene.edu

2006-2008

Barbara Reys, University of Missouri, MO; reysb@missouri.edu
Jeffrey Wanko, Miami University – Oxford, Ohio; **Chair**; wankojj@muohio.edu

2005-2007

Mary Garner, Kennesaw State University, GA; mgarner@kennesaw.edu
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Kate Riley, California Polytechnic State University, CA; kriley@calpoly.edu
Winnie Peterson, Kutztown State University, PA; wpeterso@kutztown.edu

Constitution and By-laws Committee

Tasks: Revisits the constitution and by-laws making suggestions and changes as needed.

Sid Rachlin, East Carolina University, NC; **Board Liaison;** rachlins@ecu.edu

2006-2008

Janet Caldwell, Rowan University, NJ; **Chair**; caldwell@rowan.edu
Ginny Keen, Wright State University-Lake Campus, OH; ginny.keen@wright.edu
Travis Olson, University of Missouri-Columbia, MO; taox9c@missouri.edu
Al Otto, Illinois State University, IL; otto@ilstu.edu
Ingrid Peterson, University of Kansas, KS; peterson@math.ku.edu

Membership Committee

Tasks: Works on issues associated with AMTE membership, including benefits of membership and increasing the number of members (e.g., attract members from our affiliate organizations).

Mark Klespis, Sam Houston State University, TX; **Board Liaison**; klespis@shsu.edu

2006-2008

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2005-2007

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Paola Sztajn, University of Georgia, GA; psztajn@uga.edu

Nominations and Elections Committee

Tasks: Solicits nominations and compiles a slate of nominees; prepares the content for the ballot.

Jennifer Bay-Williams, University of Louisville, KY; **Board Liaison;**
j.baywilliams@louisville.edu

2006-2007

Michaele Chappell, Middle Tennessee State University, TN; chappell@mtsu.edu
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Bill Speer, University of Nevada – Las Vegas, NV. **Chair**; speerw@nevada.edu
Tad Watanabe, Kennesaw State University, PA; twatanab@kennesaw.edu

Organization Connections Committee

Tasks: Formalizes and extends relationships with other professional societies and promotes support for and communication with AMTE Affiliated Groups.

Susann Mathews, Wright State University, Dayton, OH; **Board Liaison;**
susann.mathews@wright.edu

2006-2008

Jeremy Winters, Middle Tennessee State University, TN; jwinters@mtsu.edu

2005-2007

Kathryn Chval, University of Missouri – Columbia, MO; cvhalk@missouri.edu
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Robert Stein, California State University San Bernardino, CA; bstein@csusb.edu
Tamas Szabo, Weber State University, UT; tszabo@weber.edu

Technology Committee

Tasks: Recommends policy related to the AMTE website, NTLI, and technology issues.

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2006-2008

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2005-2007

Óscar Chávez, University of Missouri, MO; chavezo@missouri.edu
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Marcia Weinhold, Purdue University, IN; weinholdm@calumet.purdue.edu

TASK FORCES

Mentoring Task Force

Purpose: to seek ways to mentor new faculty and doctoral students in teaching, scholarship, and professional responsibilities while networking with other mathematics teacher educators.

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Chris Rasmussen, San Diego State University; chrisraz@sciences.sdsu.edu
Viji Sundar, California State University Stanislaus; VSundar@csustan.edu

Teaching Resources Task Force

Purpose: to identify essential readings in the field of mathematics teacher education and to communicate critical books, journals, and documents to the membership and other interested individuals.

Mary-Margaret Shoaf, Baylor University, Waco, TX; **Board Liaison;** MM_Shoaf@baylor.edu
Susan Friel, University of North Carolina – Chapel Hill, NC; **Co-Chair;** sfriel@email.unc.edu
Peg Smith, University of Pittsburgh, PA; **Co-Chair;** pegs@pitt.edu
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M. Lynn Breyfogle, Bucknell University, PA; mbreyfog@bucknell.edu
Amy Roth McDuffie, Washington State University – Tri Cities, WA; mcduffie@tricity.wsu.edu
Kathy Morris, Sonoma State University, CA; Kathy.morris@sonoma.edu

TE-MAT Task Force

Purpose: to establish procedures for identifying and reviewing mathematics professional development materials, with the understanding that the reviews will be considerably briefer than those currently in TE-MAT, and will be limited to describing rather than evaluating the materials.

Jennifer Bay-Williams, University of Louisville, KS; **Board Liaison;**
j.baywilliams@louisville.edu
David Pugalee, University of North Carolina—Charlotte, NC**; Chair;** dkpugale@email.unc.edu

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Madeleine Long, American Association for the Advancement of the Sciences
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ANNUAL CONFERENCE COMMITTEES

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2008 Annual Conference – Program Committee

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2007 Annual Conference – Program Committee

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PUBLICATIONS

AMTE Monograph Series

Denisse Thompson, University of South Florida, FL; **General Editor**; denisse@uchicago.edu

Third Monograph

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Fourth Monograph

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Fifth Monograph

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CITE Journal

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Virginia (Ginny) Keen, Wright State University, OH**; Co-editor;** ginny.keen@wright.edu

CALL FOR PROPOSALS

Association of Mathematics Teacher Educators (AMTE)

Twelfth Annual Conference

January 24 - 26, 2008
Renaissance Tulsa Hotel and Convention Center
Tulsa, Oklahoma

Recommended Formats for Presentations

The AMTE Board of Directors believes that the AMTE Annual Conference should provide participants with an opportunity to examine and discuss current issues in mathematics teacher education and professional development and share related ideas and information. Therefore, all sessions must provide opportunities for all participants to be actively engaged. The details on how you will involve participants in your session must be included in your proposal.

Thematic Presentation (60 minutes). Thematic presentations are designed to include either one substantive presentation or a panel discussion. With one main presentation, there should be two prepared critiques or responses. Panel discussions should formulate the salient points related to an issue of current concern to mathematics teacher educators with a moderator to foster interaction among the panelists. A total of at least 20 minutes must be allocated for participant interaction.

Symposium or Working Group (60 or 90 minutes). Symposia include several presentations focusing on the same issue from different perspectives or related aspects with a minimum of 30 minutes allocated for participant interaction. Working group sessions are designed to permit significant interaction among session organizers and participants on a particular topic of interest to AMTE members. Indicate the preferred time length for the session with a brief outline of how the time will be used. Note, however, that the program committee reserves the right to adjust session lengths to fit the confines of the program.

Individual Session (30 minutes). Individual sessions allow for project overviews and updates, local and state initiatives, and brief research reports that would be of interest to mathematics teacher educators.

Materials to Submit with a Proposal

Using the *Proposal Form*, that will be available online after February 19, 2007 at www.amte.net, submit the following for each proposed session

Presenter Information: Provide information for the session contact person and all presenters (name, affiliation and position, mailing address, phone numbers, fax number, and e-mail address.) Additionally, describe the role of each presenter (e.g., speaker, moderator, discussant, or a combination of these roles).

Session Information: Indicate type of proposed format, length of session, strand, level of teacher education addressed, and equipment needs.

Session Description: Provide a descriptive title and a 30-50 word description of the session to be listed in the program.

Abstract: Provide a one-page abstract of your proposed session. The abstract should describe background information on the proposed topic, provide evidence of its educational significance, describe how the session will be organized and how it will promote participant interaction (question-oriented, short presentations and discussion, position statements), and outline the desired outcomes of the session. Include a rationale for the type of format selected. Be sure to address the implications of the session for teacher education. Please do not include any names or information the might identify the authors.

Submissions: All submissions will be electronic. Please follow the submission guidelines and name your file submission with your last name, first initial, and middle initial.

Limits on Participation

Each individual may serve as lead speaker for no more than one session and can appear no more than twice on the program.

The lead speaker/contact must personally certify that all listed presenters have confirmed their willingness to participate in the session.

ALL PRESENTERS (including speakers, moderators, and discussants) MUST BE REGISTERED FOR THE CONFERENCE BY NOVEMBER 1, 2007 OR THEIR SESSION WILL BE CANCELLED.

Proposals Must be Submitted Electronically by Monday, May 21, 2007.

All proposals will be submitted online at www.amte.net.

Questions

If you have questions regarding proposal topic, format, or submission, contact:

Connie Schrock, Program Chair
Emporia State University
Mathematics, Computer Science, and Economics Box 4027
Emporia, Kansas 66801
Daytime Telephone: (620) 341-5631
Email: AMTE2008@emporia.edu

AMTE's Excellence in Mathematics Teacher Education Award

Description of Awards
The Board of Directors of the Association of Mathematics Teacher Educators has established an Award for Recognition of Excellence in Mathematics Teacher Education, to be awarded annually to a mathematics teacher educator of national recognition at the Annual Meeting of the AMTE. The purpose of this award is to recognize excellence in each area of mathematics teacher education (teaching, service, research). Areas of focus for the award will rotate each year. Awards will be rotated between Excellence in Teaching Mathematics Teacher Education (2005 winner: Randy Philipp; next award in 2008), Excellence in Service to Mathematics Teacher Education (the 2006 winner will be announced at the Opening Session of this conference; next award in 2009), Excellence in Scholarship in Mathematics Teacher Education (2007). The winner will be announced at the AMTE Annual Conference, where he or she will give a featured presentation.

Complete information on these awards is available on the AMTE website at www.amte.net.

Criteria
The nominee should be an active member of the mathematics teacher education community and have at least five years of commitment to mathematics teacher education. He or she should have made unique contributions to the field of mathematics teacher education. Unique contributions should be considered in the broadest sense possible.

Award for Excellence in Scholarship in Mathematics Teacher Education
The nominee for the award for excellence in scholarship in mathematics teacher education should have made a significant and lasting contribution to the field of mathematics teacher education. The nominee shall have demonstrated commitment to mathematics teacher education through one or more of the following areas:

a. The dissemination of research findings offering unique perspectives on the professional development of mathematics teachers.
b. The publication of materials useful in the preparation or continuing professional development of mathematics teachers.
c. Design of innovative pre-service or in-service programs.
d. The contribution of theoretical perspectives that have moved the field forward.

Documentation required for Excellence in Scholarship in Mathematics Teacher Education:
a. A current vita of the nominee.
b. A letter of nomination documenting the nominee's eligibility for the award.
c. Letters of support for the nomination from individuals knowledgeable of the nominee's contributions relative to one or more of the criteria stated above.
d. Provide evidence of at least three contributions of the nominee's scholarship in mathematics education in one or more areas as outlined above.

Nomination Process
AMTE members can nominate a mathematics teacher educator who meets the criteria above. Self-nominations will not be considered. Nomination materials should include those stated in each section above.

The committee will review applications in an electronic format. Therefore, applicants are encouraged to submit all application materials electronically.

Electronic submissions should be sent to Mike Klass at mklass@projects.sdsu.edu

If applicants wish to include large documents in hard copy form, we will be able to scan documents of up to 50 pages in length. Applicants may submit DVDs, CDs, or videotapes, but each clip submitted should be no more than 20 minutes long. Hard copy submissions should be sent to:

Nadine Bezuk
c/o Mike Klass
Attn: AMTE Award Nomination
6475 Alvarado Rd., Suite 206
San Diego, CA 92120

Please be sure that all items in the nomination materials are clearly labeled with the name of the nominee.

Deadline for Nomination

Nominations must be received by **October 1**.

Procedure for Review of Materials

The AMTE Awards Committee, a seven-member committee, will review the materials and select the Award winner yearly. Nominations will be reviewed by the committee, and the award recipient will be notified by late November, so that the person can have time to make arrangements to attend the AMTE conference in January. The award recipient will receive a plaque and give a presentation at the AMTE meeting in January of the year in which he or she receives the award.

AMTE Call for Manuscripts for Monograph V
(Working Title: Inquiry into Mathematics Teacher Education)

Background

The Association of Mathematics Teacher Educators (AMTE) is an organization designed to bring together individuals interested in mathematics teacher education in order to promote and improve the education of preservice and inservice teachers of mathematics. Two of its goals are to facilitate communication and to promote collaboration among mathematics teacher educators, including those in Colleges of Education, in Departments of Mathematics, and outside higher education settings. In an effort to support these goals, AMTE published its first monograph in 2004; the 2008 monograph will be the fifth volume in the series designed to be a forum for mathematics teacher educators to exchange ideas about their work with preservice and inservice teachers and about their collaborative efforts with others who play significant roles in mathematics teacher education (e.g., content faculty, clinical faculty responsible for mentoring student teachers).

Anticipated Audience

The anticipated audience for this monograph includes individuals responsible for the professional development of mathematics teachers, such as college or university faculty, community college faculty, or professional development specialists. Hence, the focus of the monograph is on issues related to the development of mathematics teachers, practices in post-secondary classrooms (content or pedagogy) for mathematics teachers, or practices that help individuals responsible for the preparation of mathematics teachers gain knowledge they need to be more effective in their work.

Possible Topics

The monograph aims to include a range of manuscripts addressing all aspects of the work of mathematics teacher educators, including manuscripts in the following broad categories:

- mathematics content and/or mathematics pedagogy courses for preservice teachers;
- professional development projects for inservice mathematics teachers (content and/or pedagogy focused);
- projects or courses designed to support preservice and inservice teachers simultaneously;
- professional development for teacher educators;
- professional development for mathematics teacher leaders;
- on-line mathematics and/or mathematics pedagogy courses for preservice/inservice teachers;
- alternative certification for mathematics teachers;
- educational policy with regard to mathematics teacher education.

Authors are encouraged to consider the following question when conceptualizing their manuscripts: What can other mathematics teacher educators learn from your manuscript that will inform their own practice with preservice and/or inservice teachers?

Preparation of Manuscripts

Any questions about possible topics for inclusion may be directed to one of the co-editors of the monograph:

Fran Arbaugh University of Missouri arbaughe@missouri.edu	P. Mark Taylor University of Tennessee pmark@tennessee.edu

Editorial decisions will be made by members of the Editorial Panel: Fran Arbaugh and P. Mark Taylor (co-editors), Denisse Thompson (AMTE board liaison and monograph series editor), and Cheryl Lubinski, Kathleen Lynch-Davis, Sue McMillan, and Sharon Young (editorial panel members).

Manuscripts should be completed in APA style, double-spaced in 12 point font using 1 inch margins, and should not exceed 15 pages in length, including references, tables, and figures.

Submission of manuscripts will be accepted electronically, as instructed below. Authors submit two electronic versions their manuscript; one copy should include a cover page with all appropriate author information (name, address, phone, fax, and email); the other copy should allow for blind review. Please name your WORD document files as follows:

Identifiable copy: LASTNAME.doc
Blind copy: LASTNAMEblind.doc

- Note: At least one of the authors of each submitted manuscript must be a member of AMTE.

Send both electronic files to: **Fran Arbaugh**
Email: arbaughe@missouri.edu

Submission Due Date: June 1, 2007

Anticipated Publication Date: 2008

Call for READERS!

Read an article and post your comments online.

Call for REVIEWERS!

Review manuscripts and help determine whether they should be published.

Call for MANUSCRIPTS!

Share scholarly information about technology in mathematics teacher education.

The *CITE-Math Journal* provides a forum for a dialog about best practices in preparation of mathematics teachers who use technology. This call for papers encourages AMTE members, researchers, and mathematics teacher educators to submit articles addressing this topic. **Articles may address any area of technology and teacher education. Articles dealing with both preservice and inservice issues are welcomed.**

A wide range of formats and approaches to scholarship are accepted, including qualitative research, quantitative research, conceptual and theoretical pieces, case studies, and professional practice papers. Articles will be published in electronic format as well as in corresponding versions (pdf) suitable for print. An electronic format allows articles to be published in a timely fashion and encourages inclusion of color graphics, photographs, and other media. Manuscripts may be submitted online through the journal web site. Inquiries about potential manuscript topics are welcomed.

Your help is needed. As a peer-reviewed journal, reviewers are an important part of the publication process. Please consider volunteering your time to serve as a reviewer for the journal. Reviewers will generally be sent no more than two to three articles each year, unless they indicate a willingness to review additional manuscripts. **All articles and reviews are submitted online.**

To become a reviewer, go to **http://www.aace.org/newpubs/index.cfm?fuseaction=Info.Entrance**. Go to Publications, enter your email address, and create an AACE login. Have a copy of your vita ready, and complete the reviewer information online. It only takes a few minutes to become involved in this important professional endeavor. Your involvement will help make the journal strong.

CALL FOR COMMENTARY
in response to published articles in CITE-Math

The CITE Journal has a unique Commentary feature which permits readers to author short responses to published articles. This feature takes advantage of an interactive medium, which is designed to encourage ongoing, peer-reviewed dialog. Readers are encouraged to provide scholarly responses to a published article using an on-line commentary strand linked to the article. Comments will be peer reviewed prior to publishing.

BONUS JOURNAL FEATURES

The journal's online medium also allows and encourages authors to demonstrate the technologies about which they are writing, including video and audio segments, animation, virtual reality, web links, and simulations.

FOR MORE INFORMATION

For further information, please feel free to contact one of the co-editors of *CITE-Math*:
Iris DeLoach Johnson (johnsoid@muohio.edu) or Virginia (Ginny) Keen (ginny.keen@wright.edu).

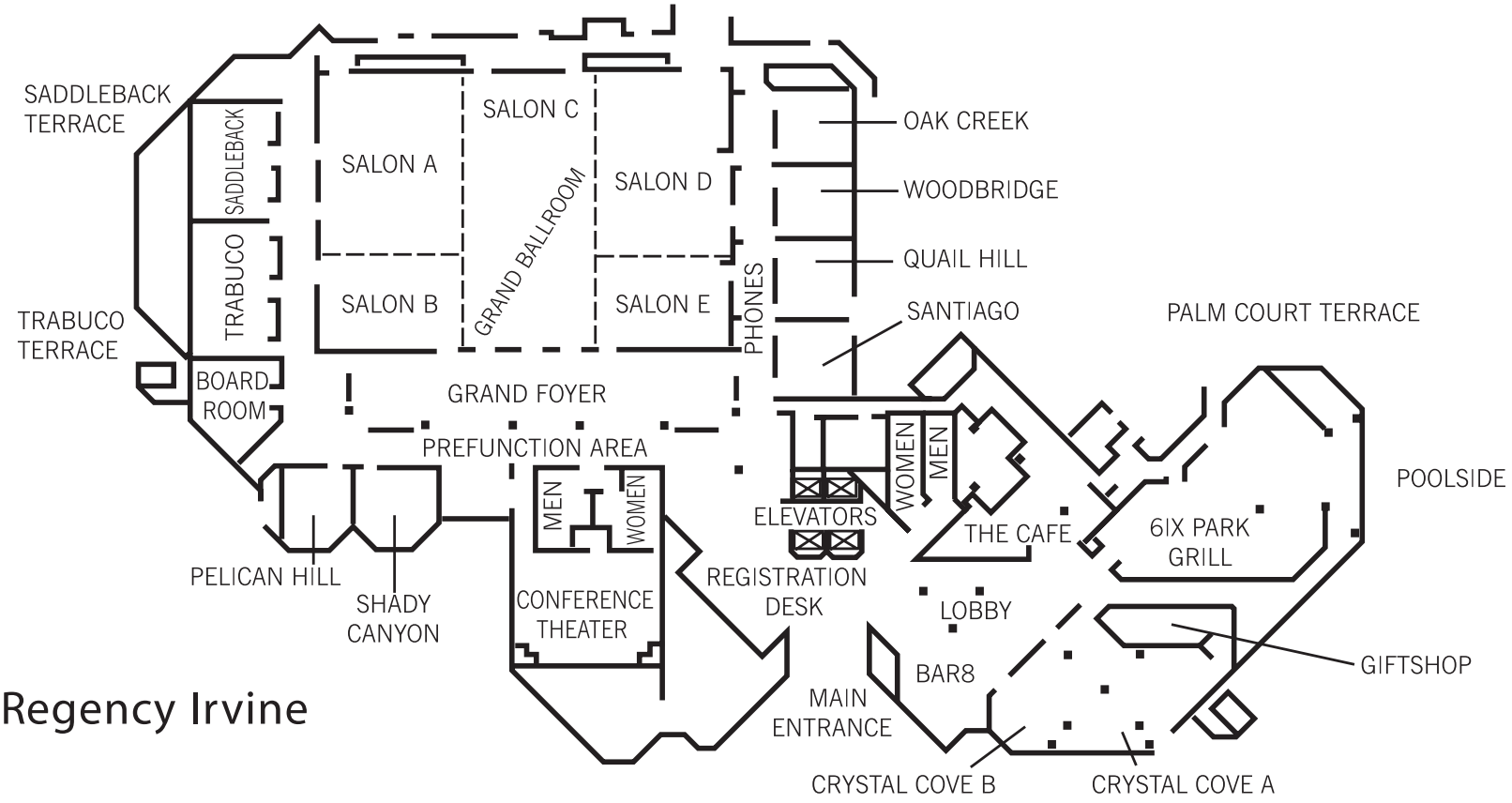
CITE Journal SPONSORS

The *CITE Journal* is an online, peer-reviewed journal, established and jointly sponsored by five professional associations:

- **AMTE** – Association of Mathematics Teacher Educators
- **AETS** – Association for Education of Teachers in Science
- **CEE** – Conference on English Education of the National Council of Teachers of English
- **NCSS-CUFA** – College and University Faculty Assembly of the National Council for the Social Studies
- **SITE** – Society for Information Technology and Teacher Education

NOTES

LOBBY LEVEL (FIRST FLOOR)



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