

Association of Mathematics = Teacher Educators

FIFTEENTH ANNUAL CONFERENCE

JANUARY 27-29, 2011

Hyatt Regency Irvine, CAlifornia



SCHEDULE

Fifteenth Annual Conference

January 27 – 29, 2011 Irvine, California

Thursday, January 27, 2011

7:30a - 5:00p
Morning (varies)
12:00p – 5:00p
1:00p – 1:45p
2:00p – 3:00p
3:00p – 3:15p
3:15p – 4:15p
5:00p – 6:30p

Friday, January 28, 2011

- 8:00a - 4:30p - 9:15a - 4:30p
– 10:30a – 11:45a
– 1:00p
– 1:45p – 3:00p
– 3:15p
– 4:00p – 6:00p
– 7:15p

Saturday, January 29, 2011

7:00 – 8:00a	Continental Breakfast
	Affiliate Meetings – Salon C/D
7:30 – 10:30a	AMTE Registration Desk Open
8:00 – 8:45a	Concurrent Sessions
9:00 – 10:15a	Concurrent Sessions
10:30 – 11:30a	Closing Session - Salon A/B
11:45 – 1:30p	Lunch and Business Meeting - Salon C/D

Break

AMTE Registration Desk Open

Exhibits Open Concurrent Sessions Concurrent Sessions

Concurrent Sessions General Session - Salon C

Continental Breakfast

Concurrent Sessions Exhibits Open Concurrent Sessions Concurrent Sessions

Concurrent Sessions Concurrent Sessions

Concurrent Sessions

Dinner - Salon C/D

AMTE Registration Desk Open

Committee Meetings - Salon C/D

Judith E. Jacobs Lecture - Salon A/B

Break

Preconference Sessions (preregistration required)

Lunch - Salon C/D and Conference Theater Terrace

AMTE BOARD OF DIRECTORS 2010

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Anniversary Trivia

When were the first elections held and who were the newly elected officers?

1994, Henry Kepner (Pres), Judith Jacobs (Pres-elect), Michaele Chappell (Secr), Nadine Bezuk (Treas), Bonnie Litwiller, James Babb, and Susan Bezi

AMTE FIFTEENTH ANNUAL CONFERENCE COMMITTEE

AMTE Conference Director: Susan Gay, University of Kansas

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Chair: Michelle Chamberlin, University of Wyoming Assistant Chair: Keith Leatham, Brigham Young University Damon Bahr, Brigham Young University Jennifer Chauvot, University of Houston Margaret Ford, Duquesne University Julie Gainsburg, CSU Northridge Tracey Goodson-Espy, Appalachian State University Suzanne Harper, Miami University Gina Post, Wittenberg University Sylvia Taube, Sam Houston State University Jennifer Tobias, Illinois State University Crystal Walcott, Indiana Univ. Purdue University Susan Gay, University of Kansas (AMTE Board)

Local Arrangements Committee

Co-Chairs: Sandi Alaux, CSU Fullerton, and Mark W. Ellis, CSU Fullerton **Tech Support**: Tony Nguyen, AMTE Webmaster Carol Brouhle, CSU Fullerton and Orange County Math Council Carol Webster, CSU Fullerton and Orange County Math Council Tor Ormseth, CSU Fullerton and El Rancho USD Walt Hamera CSU Fullerton Huy Chung, University of California, Irvine Rahila Munshi, University of California, Irvine Cathery Yeh, University of California, Irvine Scott McDonald, University of Nevada, Las Vegas Diane Kinch, Pomona USD Stacey and Sean Williams, Bellflower USD Lisa Staats, Los Angeles USD and California Math Council-Southern Section Shelton Ford, Fayetteville State University

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.



CONFERENCE INFORMATION

Conference Registration Desk

Please stop by the AMTE Registration Desk, located in the hotel's lobby near the elevators, to obtain your conference materials, including the conference program and your nametag.

AMTE Registration Desk Hours:

Thursday, January 27	7:30a – 5:00p
Friday, January 28	7:30a – 4:30p
Saturday, January 29	7:30a – 10:30a

Wireless Internet Access

Complimentary wireless internet access in the conference area of the hotel is available Thursday through Saturday. Instructions and the code to use to access this service are available at the AMTE registration desk near the guest elevators beginning Thursday morning.

For conference attendees staying at the Hyatt Regency Irvine Hotel, the hotel has established a special rate of \$5.00 per 24 hours for internet access in individual guestrooms. Directions on how to access wireless and wired internet service can be found in your guestroom. With your guestroom internet access, you also have internet access in the hotel lobby.

Please note that the hotel is not responsible for the safekeeping of equipment such as laptop computers or personal LCD projectors, supplies, written materials, or any other items that are unattended or left in meeting rooms by conference attendees.

Hotel Parking Information

Discounted self-parking is available for conference attendees for \$6.00 per car per day or \$10.00 per car per day for overnight 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. Valet parking is also available at the hotel's prevailing rates for \$13.00 per car per day or \$20.00 per car per day for overnight valet parking.

Options for Thursday Dinner

Check at the AMTE Registration Desk for a map of the area and list of nearby restaurants.

Conference Photographs

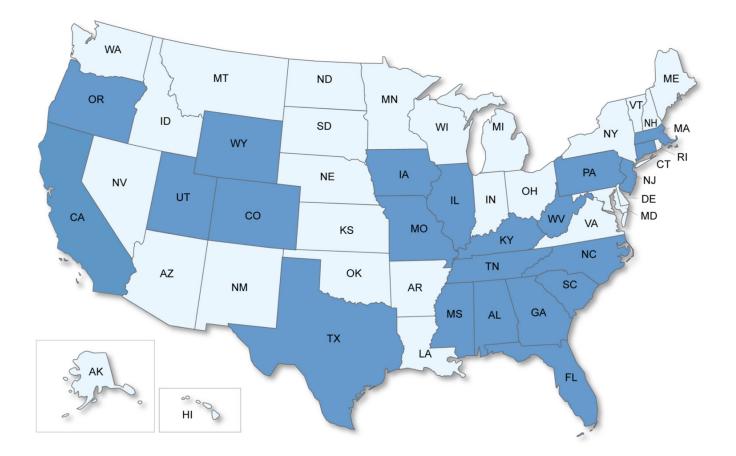
Photographs are being taken during the conference for use on the AMTE website, newsletters, and brochures. These photographs will not be sold or distributed in any way beyond the promotion of AMTE and its conference. If you do not wish your likeness to be used in these ways, please contact AMTE Executive Director Nadine Bezuk at the conference or via email at nbezuk@mail.sdsu.edu. Thanks to John Wilkins, CSU Dominguez Hills, for serving as our conference photographer.

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

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

AMTE is proud to acknowledge and welcome members of its 19 affiliated organizations, highlighted in the map below, to our Fifteenth Annual Conference.

Affiliate	Acronym	Region
Illinois Mathematics Teacher Educators	IMTE	Illinois
Utah Association of Mathematics Teacher Educators	UAMTE	Utah
Florida Association of Mathematics Teacher Educators	FAMTE	Florida
California Association of Mathematics Teacher Educators	CAMTE	California
Association of Mathematics Teacher Educators of Connecticut	AMTEC	Connecticut
Appalachian Association of Mathematics Teacher Educators	AAMTE	Appalachian Region
Georgia Association of Mathematics Teacher Educators	GAMTE	Georgia
Tennessee Association of Mathematics Teacher Educators	TAMTE	Tennessee
Association of Mathematics Teacher EducatorsTexas	AMTE-TX	Texas
Pennsylvania Association of Mathematics Teacher Educators	PAMTE	Pennsylvania
Massachusetts Mathematics Association of Teacher Educators	MassMATE	Massachusetts
Missouri Mathematics Association for Advancement of Teacher Training	(MAT)^2	Missouri
South Carolina Association of Mathematics Teacher Educators	SCAMTE	South Carolina
New Jersey Association of Mathematics Teacher Educators	NJAMTE	New Jersey
Rocky Mountain Association of Mathematics Teacher Educators	RMAMTE	Rocky Mountain Area
Teachers of Teachers of Mathematics, Oregon	ТОТОМ	Oregon
Mississippi Association of Mathematics Teacher Educators	MAMTE	Mississippi
Association of Mathematics Teacher Educators of Alabama	AMTEA	Alabama
Iowa Association of Mathematics Teacher Educators	IAMTE	lowa



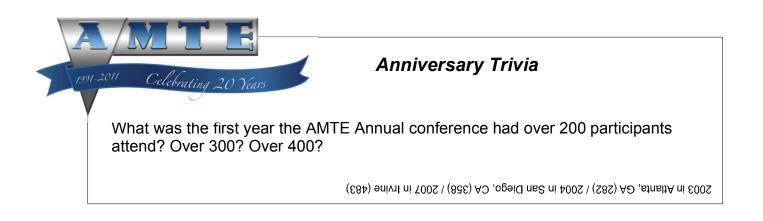
Please note that other important information is available at the back of the program book, including the following:

- AMTE Events at the NCTM and NCSM Conferences in Indianapolis, IN, in April, 2011;
- Information about speaking at the 2012 AMTE Conference (deadline: May 13, 2011);
- Listing of the Judith E. Jacobs Lecturers since the creation of this award;
- Speaker index, including contact information;
- AMTE Leadership;
- Minutes from the 2010 AMTE Business Meeting in Irvine, CA;
- Call for Nominees for the AMTE Award for Excellence in Teaching in Mathematics Teacher Education (deadline: September 30, 2011) and AMTE's Early Career Award (deadline: October 15, 2011); and
- Call for Papers for the Contemporary Issues in Technology and Teacher Education (CITE) Journal.

ACKNOWLEDGEMENTS

The Fifteenth Annual AMTE Conference would not be possible without the contributions and support of many individuals. AMTE wishes to express its sincere appreciation to:

- all speakers who contributed their time and expertise to make this conference a success;
- the AMTE Board of Directors, Conference Director and Assistant Conference Director, Executive Director, Program Committee, Local Arrangements Committee, and Headquarters staff for providing the time and effort necessary to pull this conference together;
- Tony Nguyen and Cathy Boyle, San Diego State University, and Liz Dolezal, Kennesaw State University, for their support with registration and conference materials; and
- CAMTE for assisting with technology and local arrangements for the conference.







Thursday Morning, January 27, 2011

The following Preconference Sessions will be held on Thursday morning, January 27, 2011. Each session required pre-registration.

Time	Title	Organizer/Sponsor	Location
8:30a – 11:30a	Affiliate Connections	AMTE Affiliate Connections Committee	Woodbridge
8:00a – 12:00p	Framing and Analyzing (In)equity and Power in Mathematics Methods	AMTE Equity Task Force	Shady Canyon
8:30a – 11:30a	Using the TPACK Framework to Think About Issues in Technology-based Professional Development for Mathematics Teachers	AMTE Technology in Mathematics Teacher Education Committee	Saddleback
8:30a – 11:30a	Designing Professional Development to Build Specialized Mathematical Knowledge for Teaching	Researching Mathematics Leader Learning NSF Grant (Elham Kazemi)	Salon B
Session Cancelled	Facilitating Teachers' Discussions of Practice using Animated and Video Representations of Teaching (ThEMaT)	ThEMaT NSF Grant	Session Cancelled
8:30a – 11:30a	NCTM NCATE Program Reviewer Training Workshop	NCTM	Quail Hill
8:30a – 11:30a	Pathways to Middle School Mathematics Teaching in California: Concerns and Opportunities	Carol Fry Bohlin	Conference Theater
8:30a – 11:30a	Preparing to Teach Mathematics with Technology [PTMT]: Engaging Practices and Materials for Technology-Using Mathematics Teacher Educators	PTMT NSF Grant (Hollylynne Lee)	Trabuco
8:30a – 11:30a	STaR Fellows Follow-up	STaR Fellows Program NSF Grant (Bob Reys)	Salon E
8:30a – 11:30a	Understanding Students' Conceptions of Integers and Implications for Teacher Educators	Mapping Developmental Trajectories of Students' Conceptions of Integers NSF Grant (Lisa Lamb)	Pelican Hill

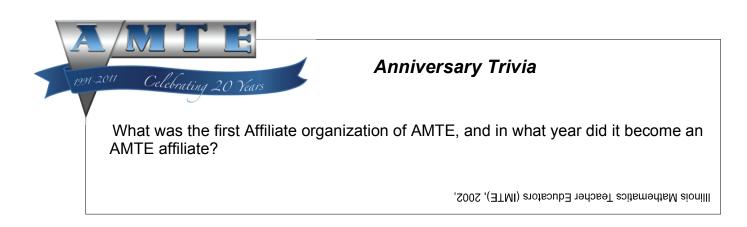


EXHIBITORS

AMTE thanks this year's Exhibitors for providing invaluable support for our conference and our organization's activities and initiatives.

Exhibitor Name	Materials
BYU Mathematics Department <u>WeUseMath.org</u>	<u>WeUseMath.Org</u> : A free resource for teachers with curious students. This website helps answer the question, "When will I use Math?" On the website learn about 40+ careers and salaries in mathematics, watch a video on the benefits of learning math, how to utilize math in the real world, and so much more! Stop by our booth to pick up free classroom resource materials and to win a prize on our Plinko machine!
W. H. Freeman & Company	W.H. Freeman & Co. publishes high-quality textbooks and media in math and statistics. Stop by our exhibit to learn more about our new products, including the popular title by Judy Sowder, Larry Sowder, and Susan Nickerson, <i>Reconceptualizing Mathematics for Elementary School Teachers.</i> We will also be demonstrating our online homework and course management program MathPortal, as well as displaying our titles for courses ranging from Introductory Statistics to Calculus. We hope to see you today!
John Wiley & Sons, Inc. – Higher Education	John Wiley & Sons has been a leader in educational publishing for over 200 years. Come by the Wiley booth to see the newest edition of best-selling text <i>Mathematics for</i> <i>Elementary School Teachers</i> by Gary L. Musser, William F. Burger, and Blake E. Peterson. This text and many others are accompanied by the newest versions of WIleyPLUS- an innovative, research-based, online environment for effective teaching and learning. Also, preview books in the following areas and many more!
	Liberal Arts Math • Quantitative Reasoning • Geometry Math for Middle School and High School Teachers
National Council of Supervisors of Mathematics	NCSM is an international mathematics leadership organization that provides professional learning opportunities for education leaders to support and sustain improved student achievement. Stop by for more information about NCSM and our publications and resources, including the NCSM Journal for Mathematics Education Leadership, Position Papers, and our Principles and Indicators for Mathematics Education Leaders (PRIME) Framework. Also learn about NCSM professional learning opportunities scheduled for 2011, with emphasis on leadership development and interpreting and implementing the Common Core State Standards for Mathematics.
NCTM's Mathematics Education Trust (MET)	The National Council of Teachers of Mathematics will be displaying information about NCTM's MET Grants, Scholarships, and Awards for the 2012-2013 year.
Pearson	Preview the latest print and online course solutions that will help you prepare students to teach mathematics. Our texts range from mathematical content to educational methods, and include ideas for applying methods and concepts to K-12 curriculum samples. See a sample of videos that illustrate children's mathematical reasoning and effective classroom instruction, and get ideas for engaging your students.

NOTES



Overview of Thursday, January 27, 2011			
	1:00p - 1:45p	2:00p - 3:00p	3:15p - 4:15p
Salon A	1. Geometry Assessments for Secondary Teachers - Mohr- Schroeder, Bush, Ronau, Lee, Buckendahl & Stokes	15. Using the "Strands of Mathematical Proficiency" to Improve Mathematics Instruction in Multiple Contexts - Lewis, Philipp, Siegfried, Williams & Hix	29. Focus on Mathematical Reasoning and Sense Making: Continuing Efforts in NCTM's Long-term Secondary Initiative - Shaughnessy & Martin
Salon C	2. Elementary Mathematics Education Content and Methods Courses: Alignment among Institutions' Programs - Shih & Olson	16. Connecting Mathematical and Pedagogical Knowledge Development in Teacher Preparation - McGraw, Barker, Kersaint & Thompson	30. Who Teaches Mathematics Content Courses for Pre-service Elementary Teachers? Results of a Nationwide Survey - Masingila, Olanoff & Kwaka
Salon B	3. Progressive Incorporation of New into Known: A Chinese Pedagogical Perspective on Mathematics Learning - Jin & Tzur	17. New Pathways in Developmental Mathematics - Farinelli	31. Using Mathematical Tasks and Discourse-based Instruction to Promote Pre-service Elementary Teacher Knowledge - Feldman, Chedister, Cheng, Chapin, Salinas, Bunn & Ng
Salon E	4. Describing Standards-based Instruction: An Emerging Developmental Model - Barlow, Harmon & Riales	18. Supporting New Mathematics Educators - Enderson	32. A Mixed Methods Approach to Developing an Assessment of Pre- service Teachers' Mathematical Knowledge for Teaching - Russell, Lovin & Schultz
Crystal Cove	5. Developing Prospective Mathematics Teachers' Ability to Design High-level Technology-oriented Tasks - Schultz	19. Linking Children's Thinking and Teacher Development at the Secondary School Level - Manouchehri, Zhang & Brosnan	33. Supporting Math Teacher Educators' Implementation of Curriculum-based Professional Development Programs - Moeller, Brodesky & Goldsmith
Conference Theater	6. The Role of Mentoring in Pre-service Teacher Development - Fischman, Cronk & Joseph	20. What Belongs on the Reading List in a Methods Course? - Harrington & Campbell	34. Analyzing Mathematics Teaching Anxiety: Assumptions, Findings and Implications for Mathematics Educators - Westenskow, Bingham Brown & Moyer-Packenham
Saddleback	7. Learning Trajectories in Practice - Wilson	21. Mathematics Scan (M-Scan): Using a Quantitative Observational Measure to Describe Mathematics Instructional Quality - Walkowiak & Berry	35. Using Classroom Observation Tools to Promote High-quality Mathematics Instruction - Boston, Gibbons, Shahan & Jackson
Trabuco	8. Analyzing the Statistical Content of Textbooks for Prospective Elementary Teachers - Jones & Jacobbe	22. From Freshmen to Seniors: A Triad, Collaborative Approach to Preparing Prospective Teachers - Burton & Geddings	36. Algebra for All: Using TI-Navigator to Provide Equal Opportunities to At- risk Students - Riales, James & Ivy

Pelican Hill	9. Elementary Mathematics Specialists – Roundtable Sessions: (a) Fennell, Kobett & Wray; (b) Bos; (c) Polly, Morge, Lynch-Davis & Preston	23. Mathematical Knowledge for Teaching – Roundtable Sessions: (a) Lloyd & Herbel-Eisenmann; (b) Star & Richland; (c) Gilchrist & Somayajulu; (d) Eli, Mohr-Schroeder & Lee	37. Teachers Facilitating Mathematical Communication – Roundtable Sessions: (a) McCloskey, Lloyd & Arbaugh; (b) Che; (c) Sweeney & Wawro; (d) Hemming
Shady Canyon	10. Learning from Doing: What Happens When an Accomplished Elementary Teacher Tries a New Way of Teaching? - Sengupta-Irving, Enyedy, & Redman	24. How to Foster Probabilistic Intuition through Games of Chance? A Cultural Excursion through Probability - Naresh	38. Using Mathematics-based Planning Prompts to Analyze a Fraction Task - Cengiz, Flowers, Rathouz & Rubenstein
Quail Hill	<i>11. Developing an Online Lesson Study Community -</i> Yursa & Silverman	25. Reculturing High School Math Departments for Educational Excellence and Equity: An Organizational Learning Model - Jilk, O'Connell, Lenges, Persky & Day	39. Assessing Pre-service Teachers in the Elementary Mathematics Methods Classroom - Lannin & Chval
Woodbridge	12. Fostering TPACK Development in Pre-service Middle School Mathematics Teachers - Edwards & Ozgun- Koca	26. The Development, Use, and Facilitation of Equity Cases in Mathematics Teacher Education - Edwards, Clark, Davis, Jones & Tseng	40. Content-focused Coaching with Pre-service Teachers - Baker & Suh
Oak Creek	13. Concept Maps as an Evaluation Tool for Professional Development - Newton, Umbeck & Kenney	27. Research in Mathematics Instructional Coaching - Burroughs & Yopp	41. Adapting Mathematical Tasks: Purpose and Impact on Content and Cognitive Demand when Teachers Rewrite Tasks - Meier & Rich
Santiago	14. Unearthing Culturally Responsive Mathematics Teaching: Using Grounded Theory to Deconstruct Successful Practice - Bonner	28. The Impact on Novice Teachers' Practice after Learning to Teach from Their Teaching - Powers & Judd	42. Pre-service Teachers' Conceptual Understanding of Level of Confidence - Buckley & Noblitt

Individual Session Geometry Assessments for Secondary Teachers

Thursday, January 27, 2011

Mathematical Content Knowledge

Margaret Mohr-Schroeder, University of Kentucky William Bush, University of Louisville Robert N. Ronau, University of Louisville Carl Lee, University of Kentucky Chad Buckendahl, Alpine Testing Solutions Myisha Stokes, Alpine Testing Solutions

This session will provide an update on the Geometry Assessments for Secondary Teachers (GAST) project, an NSF-funded project to develop geometry assessments for teachers designed to predict teacher performance and student achievement.

Session 2

Session 1

Salon C

Salon A

Mathematics Education Policy and Program Issues Individual Session

Elementary Mathematics Education Content and Methods Courses: Alignment among Institutions' Programs

Jeffrey Shih, *University of Nevada, Las Vegas* Travis A. Olson, *University of Nevada, Las Vegas*

Recognizing an opportunity for course alignment in the elementary mathematics education curriculum at one institution, a study was developed to understand similar situations around the country. We share results from the study, and initial results from our alignment efforts.

Session 3 Pedagogical Content Knowledge Individual Session Salon B

Progressive Incorporation of New into Known: A Chinese Pedagogical Perspective on Mathematics Learning

Xianyan (Jane) Jin, *Monash University* Ron Tzur, *University of Colorado, Denver*

We will present a preliminary analysis of Chinese mathematics teachers' perspective on learning (progressive incorporation), which developmentally seems to reside above perception-based and below conception-based (constructivist) perspectives identified in the US.

Session 4 Pedagogical Content Knowledge Individual Session Salon E

Describing Standards-based Instruction: An Emerging Developmental Model

Angela Till Barlow, *University of Mississippi* Shannon Harmon, *University of Mississippi* Julie Riales, *University of Mississippi*

In documenting elementary teacher candidates' ability to describe standards-based instruction, a developmental model has emerged that describes stages through which teacher candidates move. We will describe our model and engage participants in examining data that led to its development.

Session 5 Teaching and Learning with Technology Individual Session

Developing Prospective Mathematics Teachers' Ability to Design High-level Technology-oriented Tasks

Kyle Thomas Schultz, James Madison University

During a middle grades methods course, pre-service teachers designed technology-oriented mathematical tasks with the goal of maximizing cognitive demand. Session participants will examine some of these tasks, focusing on the relationship between technology use and cognitive demand.

Session 6

Conference Theater

Saddleback

Trabuco

Pre-Service Teacher Field Experiences Individual Session

The Role of Mentoring in Pre-service Teacher Development

Davida Fischman, California State University, San Bernardino Carol Cronk, San Bernardino County Jesunathadas Joseph, California State University, San Bernardino

The transition from student to teacher is crucial and difficult. For many, pre-service classroom experiences consist primarily of observing teachers' classrooms, with little teacher-candidate responsibility. We describe a mentoring model that immerses pre-service teachers in classroom culture as undergraduates.

Session 7 Mathematical Content Knowledge Individual Session

Learning Trajectories in Practice

P. Holt Wilson, University of North Carolina, Greensboro

This session presents findings from research conducted with practicing elementary teachers that explored their uses of a learning trajectory in their teaching. Results suggest that learning trajectories may affect the ways teachers facilitate coherent instruction.

Session 8 Mathematical Content Knowledge Individual Session

Analyzing the Statistical Content of Textbooks for Prospective Elementary Teachers

Dustin Jones, Sam Houston State University Tim Jacobbe, University of Florida

Participants will learn of results of a study in which the Guidelines for Assessment and Instruction in Statistics Education (GAISE) were used as a framework to analyze the statistical content of mathematics textbooks intended for prospective elementary teachers.

1:00p - 1:45p

Crystal Cove

Session 9 **Elementary Mathematics Specialists Roundtable Sessions**

An Analysis of State Certification Efforts and Coursework for **Elementary Mathematics Specialists**

Francis (Skip) Fennell, McDaniel College Beth McCord Kobett, Stevenson University Jon Wray, Howard County Public Schools

An analysis of state certification efforts for elementary mathematics specialists: What mathematics? What pedagogy? What leadership background? Does certification make a difference? The session will discuss challenges in linking certification guidelines to course offerings.

Mathematics Specialists for the Elementary Classroom: Research Issues

Beth Bos, Texas State University

Purposes of this session are to: 1) share progress of a mathematics specialists program for elementary teachers and 2) bring educators together to research the effects of mathematics specialist training and the use of mathematics specialists in elementary classrooms.

Developing a Statewide Program of Study for Elementary Mathematics Specialists: North Carolina's Story

Drew Polly, University of North Carolina, Charlotte Shelby Paige Morge, University of North Carolina, Wilmington Kathleen Lynch-Davis, Appalachian State University Ron Preston, East Carolina University

In this presentation, part of the North Carolina Kindergarten through Grade Six Mathematics Add-on License development team shares an overview of the program of study and discusses how this may help develop elementary mathematics specialists.

Session 10 **Teacher Professional Development** Individual Session

Shady Canvon

Pelican Hill

Learning from Doing: What Happens When an Accomplished Elementary Teacher Tries a New Way of Teaching?

Tesha Sengupta-Irving, University of California, Los Angeles Noel Enyedy, University of California, Los Angeles Elizabeth Redman, University of California, Los Angeles

This session presents results of an intervention study involving a fifth grade teacher implementing an open-ended data and statistics unit for the first time. Discussion foci: student learning outcomes, teacher reflections, and implications for teacher education and research-based professional development.

Session 11 **Teacher Professional Development** Individual Session

Developing an Online Lesson Study Community

Hope M. Yursa, Drexel University Jason Silverman, Drexel University

We will discuss how a variety of technology tools can be used to create an online, distributed lesson study community. Our presentation will include specific examples of lesson study activities and analysis of teacher engagement.

Session 12 Teaching and Learning with Technology Individual Session

Fostering TPACK Development in Pre-service Middle School Mathematics Teachers

Thomas G. Edwards, Wayne State University S. Asli Ozgun-Koca, Wayne State University

Twenty-four pre-service middle school mathematics teachers completed activities using TI-Nspire, were shown video of students engaged in the same activities, and completed several surveys. The results of our data analysis with implications for teacher education will be shared.

Session 13 Mathematical Content Knowledge Individual Session

Concept Maps as an Evaluation Tool for Professional Development

Jill Newton, Purdue University Lindsay Umbeck, Purdue University Rachael Kenney, Purdue University

This session will describe how concept maps constructed by individual teachers and groups of teachers can be used to investigate changes in the conceptualization of mathematical topics (e.g., fractions, algebra) across a professional development experience.

Session 14

Equity and Mathematics Education Individual Session

Unearthing Culturally Responsive Mathematics Teaching: Using Grounded Theory to Deconstruct Successful Practice

Emily P. Bonner, University of Texas, San Antonio

This presentation reports on a grounded theory study focusing on practices of three successful mathematics teachers of underserved students. Preliminary findings indicate that relationships with students mediate success while communication, knowledge, and reflection are key elements of culturally responsive mathematics teaching.

Quail Hill

Woodbridge

Oak Creek

Santiago

Thursday, January 27, 2011

Session 15 Pedagogical Content Knowledge Symposium

Using the "Strands of Mathematical Proficiency" to Improve

Mathematics Instruction in Multiple Contexts

Jennifer Lewis, Wayne State University Randolph Philipp, San Diego State University John (Zig) Siegfried, San Diego State University and University of California, San Diego Alison Williams, Fay Elementary School Sherry Love Hix, North Georgia College and State University

In this symposium, we present how teacher educators across a variety of contexts are leveraging the "strands of mathematical proficiency" to support teachers' work in conducting high-quality mathematics instruction at a variety of institutional settings and levels of schooling.

Session 16 Mathematical Content Knowledge Individual Session

Salon C

Salon A

Session 19

Individual Session

Secondary School Level

Connecting Mathematical and Pedagogical Knowledge Development in Teacher Preparation

Rebecca McGraw, University of Arizona David Barker, Illinois State University Gladis Kersaint, University of South Florida Denisse Thompson, University of South Florida

This session focuses on a project aimed at developing connections between mathematical and pedagogical knowledge development within secondary teacher preparation programs. Presenters co-taught mathematics and methods courses for pre-service teachers with university mathematicians, and participated in a research study of their collaborations.

Session 17 **AMATYC President** Individual Session

Salon B

Salon E

New Pathways in Developmental Mathematics

Robert Farinelli, American Mathematical Association of Two-year Colleges President, Community College of Allegheny County, Boyce Campus

AMATYC has been working with several other national organizations to develop new pathways to and through developmental mathematics. How will this impact the preparation of elementary and middle school teachers as many of them begin their career at two-year colleges?

Session 18 **Development of Mathematics Teacher Educators Discussion Session**

Supporting New Mathematics Educators

Mary C. Enderson, Middle Tennessee State University

This session is led by the AMTE Mentoring Committee and is designed to invite mathematics educators to come together and identify and discuss issues of concern for new faculty in higher education. Issues may include publishing, serving the profession, promotion and tenure, and surviving in academia.

Azita Manouchehri, The Ohio State University Pingping Zhang, The Ohio State University Patricia Brosnan, The Ohio State University We will report on our longitudinal research and development project

Teacher Professional Development

that aims to: (1) develop an understanding of mathematical thinking processes of seventh through ninth grade children and (2) design professional development environments for teacher learning around this knowledge.

Linking Children's Thinking and Teacher Development at the

Session 20

Development of Mathematics Teacher Educators Discussion Session

What Belongs on the Reading List in a Methods Course?

Rachel A. Harrington, Western Oregon University Sunshine Campbell, Evergreen State College

We will present a bibliography of readings that we have collected from methods syllabi across the country and begin a discussion about what pre-service teachers should be reading during initial licensure.

Session 21 Pedagogical Content Knowledge Individual Session

Saddleback

Mathematics Scan (M-Scan): Using a Quantitative Observational Measure to Describe Mathematics Instructional Quality

Temple Walkowiak, North Carolina State University Robert Q. Berry, University of Virginia

The goals of this session are to share the processes used to develop and validate an observational measure and to discuss the nine dimensions of mathematics instructional quality as a framework for high quality instruction for elementary grades.

Session 22

School and University Partnerships and Projects Individual Session

Trabuco

From Freshmen to Seniors: A Triad, Collaborative Approach to Preparing Prospective Teachers

Megan Burton, University of South Carolina Debra Geddings, University of South Carolina

This interactive session explores a triad model for elementary teacher preparation that begins with pen pal journals in content courses and extends to school-based mathematics methods courses. Participants will explore pen pal journals and video scenarios, and discuss the collaborative planning and implementation model.

2:00p - 3:00p

Conference Theater

Crystal Cove

mathematical ideas and reflective guestions and problems from a
publication that aims to extend the mathematical content knowledge
in-service and pre-service teachers.

Session 23

Roundtable Sessions

Middle School Teachers

Exploring Relationships between Mathematical Knowledge for Teaching and Teachers' Ability to Effectively Use Comparison

Expressions and Equations: Mathematical Content Knowledge for

understandings of algebra (expressions and equations). We will share

the mathematical content knowledge of

Jon R. Star, Harvard University Lindsey Richland, University of California, Irvine

Gwendolyn Lloyd, Pennsylvania State University

Beth Herbel-Eisenmann, Michigan State University

This session focuses on extending middle school teachers'

Mathematical Knowledge for Teaching

In this interactive session, we consider the relationships between teachers' mathematical knowledge for teaching and their ability to effectively use comparison instructionally, through case studies of preservice and in-service teachers at the elementary and middle grades.

Determining the Level of Mathematical Knowledge for Teaching of Geometry of Pre-service Secondary Mathematics Teachers

Sarah Gilchrist, The Ohio State University Ravi Somayajulu, The Ohio State University

We compared the mathematical knowledge for teaching of geometry of two cohorts of M.Ed. students, one at the beginning of their program and the other at the end. The data indicated significant differences in levels of mathematical knowledge between the two cohorts.

Exploring Mathematical Connections through the Use of Card Sort Activities

Jennifer Ann Eli, University of Arizona Margaret Mohr-Schroeder, University of Kentucky Carl Lee, University of Kentucky

A study of prospective middle grades teachers' mathematical connection making while engaged in card sorting activities was conducted. The methodology of the card sorting activity will be shared along with results of the connections made by these prospective teachers

Session 24 Mathematical Content Knowledge Individual Session

Shady Canyon

Pelican Hill

How to Foster Probabilistic Intuition through Games of Chance? A Cultural Excursion through Probability

Nirmala Naresh, Miami University

Prospective middle grades teachers explored culturally diverse probability games and recorded and analyzed data using multiple representations. Using video clips and other artifacts, we discuss the significance of using culturally diverse probability games to foster classical, frequentist, and subjective notions of probability.

Session 25 **Teacher Professional Development** Symposium

Reculturing High School Math Departments for Educational Excellence and Equity: An Organizational Learning Model

Lisa M. Jilk, University of Washington Karen O'Connell, University of Washington Anita Kristine Lenges, The Evergreen State College Lauren Persky, University of Washington Bill Day, University of Washington

Complex instruction improves student learning and educational equity. Yet it is not easily implemented. We will share how we reculture mathematics departments to implement complex instruction and our research findings from three years in two math departments on organizational learning.

Session 26 Equity and Mathematics Education Individual Session

Woodbridge

Oak Creek

Santiago

The Development, Use, and Facilitation of Equity Cases in Mathematics Teacher Education

Ann Edwards, University of Maryland Lawrence M. Clark, University of Maryland Julius Davis, University of Maryland Toya D. Jones, University of Maryland Nancy Tseng, University of Maryland

This session is designed to engage participants in a multimedia case focused on teachers' knowledge and understanding of the ways their students are socialized towards or away from seeing themselves as mathematics learners.

Session 27 **Teacher Professional Development** Individual Session

Research in Mathematics Instructional Coaching

Elizabeth Burroughs, Montana State University David Yopp, Montana State University

This presentation examines a definition of coaching knowledge and compares the definition with the standards identified in AMTE's Standards for Elementary Mathematics Specialists. It addresses results from a randomized experimental study using an instrument designed to measure coaching knowledge.

Session 28 **Teacher Professional Development** Individual Session

The Impact on Novice Teachers' Practice after Learning to Teach from Their Teaching

Robert Powers, University of Northern Colorado April Judd, Northern Arizona University

This session reports preliminary findings of a study on the impact of using lesson experiments in the preparation of secondary pre-service teachers. We will present a brief overview of lesson experiments, preliminary findings, and facilitate a discussion of implications.

Quail Hill

Thursday, January 27, 2011

Session 29 **NCTM President** Individual Session Salon A

Focus on Mathematical Reasoning and Sense Making: Continuing Efforts in NCTM's Long-term Secondary Initiative

J. Michael Shaughnessy, NCTM President, Portland State University W. Gary Martin, Auburn University

NCTM has launched long-term efforts to infuse Mathematical Reasoning and Sense Making into all secondary mathematics classrooms. Come and hear more about new web-based resources, a video library of secondary classroom clips, and a special secondary mathematics conference in 2011.

Session 30 **Development of Mathematics Teacher Educators** Individual Session

Salon C

Who Teaches Mathematics Content Courses for Pre-service Elementary Teachers? Results of a Nationwide Survey

Joanna Masingila, Syracuse University Dana Olanoff, Syracuse University Dennis Kwaka, Syracuse University

In this session, we will discuss the results of a nationwide survey of all higher education institutions about mathematics content courses for pre-service elementary teachers, who teaches these courses, and what are the instructors' academic and teaching backgrounds.

Session 31 Mathematical Content Knowledge Individual Session

Salon B

Using Mathematical Tasks and Discourse-based Instruction to Promote Pre-service Elementary Teacher Knowledge

Ziv Feldman, Boston University Matthew Chedister, Boston University Diana Cheng, Middle Tennessee State University Suzanne H. Chapin, Boston University Alejandra Salinas, Boston University Johanna Bunn, Boston University Dicky Noto Afiah Ng, Utah State University

This session presents the work of the Elementary Pre-Service Teachers' Mathematics Project, which has produced a collection of cognitively challenging tasks used to promote pre-service teachers' mathematical knowledge for teaching and studied the use of discourse to implement these tasks.

Session 32

Mathematical Content Knowledge Individual Session

A Mixed Methods Approach to Developing an Assessment of Preservice Teachers' Mathematical Knowledge for Teaching

Javarro Antoine Russell, James Madison University LouAnn Lovin, James Madison University Kyle Thomas Schultz, James Madison University

During this session, we will recount our struggle to measure pre-service teachers' mathematical knowledge for teaching, particularly specialized content knowledge, as well as describe our subsequent approach to developing new outcomes and creating an improved assessment design for this purpose.

Session 33

Crystal Cove Development of Mathematics Teacher Educators Individual Session

Supporting Math Teacher Educators' Implementation of Curriculum-based Professional Development Programs

Babette Moeller, Education Development Center Amy Brodesky, Education Development Center Lynn Goldsmith, Education Development Center

We will report research findings about the support needs of math teacher educators who implemented two professional development programs focused on improving the accessibility of mathematics instruction. We will share a model for addressing these needs.

Session 34

Conference Theater

Pre-Service Teacher Field Experiences Individual Session

Analyzing Mathematics Teaching Anxiety: Assumptions, Findings and Implications for Mathematics Educators

Arla Westenskow, Utah State University Amy Bingham Brown, Utah State University Patricia S. Moyer-Packenham, Utah State University

Mathematics anxiety has been studied for decades, and it is often assumed that elementary pre-service teachers' anxiety stems from poor mathematical backgrounds. We examine elementary pre-service teachers' mathematics anxiety in teaching contexts and reveal that assumptions are not always accurate.

Page 16

3:15p - 4:15p

Salon E

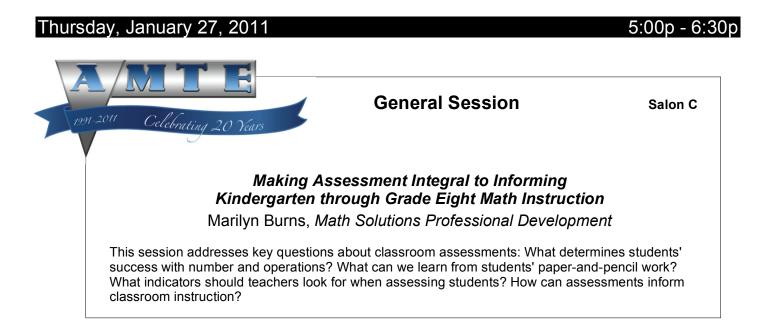
Session 35 Saddleback Teacher Professional Development Symposium	Session 37 Pelican Hill Teachers Facilitating Mathematical Communication Roundtable Sessions
Using Classroom Observation Tools to Promote High-quality Mathematics Instruction	Student Teachers and Their Mentors in Mathematics Teacher Education: Preliminary Findings from a Research Study
Melissa Boston, <i>Duquesne University</i> Lynsey Gibbons, <i>Vanderbilt University</i> Emily Shahan, <i>Vanderbilt University</i> Kara Jackson, <i>McGill University</i>	Andrea McCloskey, <i>Pennsylvania State University</i> Gwendolyn Lloyd, <i>Pennsylvania State University</i> Fran Arbaugh, <i>Pennsylvania State University</i>
Participants will explore how classroom observation instruments can provide artifacts and tools to engage pre-service and in-service mathematics teachers in enacting high-quality mathematics instruction and support instructional leaders (administrators and coaches) in promoting mathematics education reform at scale.	Participants will be invited to engage in discussions about the design and preliminary findings of an ongoing research study. The study, situated in an elementary professional development school, examines the processes entailed in learning to teach mathematics using classroom discourse.
	Secondary Pre-service Teachers' Efforts at Facilitating Mathematical Communication
Session 36 Trabuco Equity and Mathematics Education Individual Session	S. Megan Che, Clemson University
Algebra for All: Using TI-Navigator to Provide Equal Opportunities to At-risk Students	This presentation focuses on secondary pre-service teachers' initial efforts to incorporate mathematical communication into their instructional strategies and peer teaching lessons. Video clips of peer
Julie Riales, University of Mississippi Julie James, University of Mississippi	teaching episodes in which secondary pre-service teachers facilitate mathematical communication will be shared. Revoicing as a Tool for Promoting Effective Student Discourse
Jessica Ivy, University of Mississippi	
Participants will experience a safe learning environment with the TI Navigator. Presenters will share data from a study on the effects of	George Franklin Sweeney, S <i>an Diego State University</i> Megan Wawro, S <i>an Diego State University</i>
Navigator use on achievement and attitudes of learning disabled or at risk students. Discussion will follow.	One difficulty that pre-service teachers face during their teacher training is entering a pre-existing classroom that does not promote student- centered interaction. This session will examine revoicing and how it can aid teachers in negotiating a favorable normative discourse.

Communication and Mathematics: A Case for Secondary Teaching in Ontario

Lynda Hemming, University of Western Ontario

The results of this study suggest that secondary mathematics teachers require considerably more professional development in the area of communication as both an assessment category evaluating mathematical thinking and understanding and as a pedagogical tool for developing mathematical thinking and understanding.

Session 38 Shady Canyo Pedagogical Content Knowledge Symposium	on Session 41 Oak Creek Development of Mathematics Teacher Educators Individual Session
Using Mathematics-based Planning Prompts to Analyze a Fraction Task	Adapting Mathematical Tasks: Purpose and Impact on Content and Cognitive Demand when Teachers Rewrite Tasks
Nesrin Cengiz, University of Michigan, Dearborn Judith Flowers, University of Michigan, Dearborn Margaret Rathouz, University of Michigan, Dearborn Rheta Rubenstein, University of Michigan, Dearborn Participants will have the opportunity to engage with a set of mathematics-based planning prompts and use them to analyze and share insights about a fraction task that is from a content course for future elementary teachers. Session 39 Pedagogical Content Knowledge Symposium	Sherry L. Meier, Illinois State University Beverly S. Rich, Illinois State University This session will ask participants to adapt sample mathematical tasks for various purposes, compare their changes to those made by pre- service or in-service teachers, and then discuss the impact on the content and cognitive demand that result from the various changes. Session 42 Santiago Mathematical Content Knowledge Individual Session Pre-service Teachers' Conceptual Understanding of Level of Confidence
Assessing Pre-service Teachers in the Elementary Mathematics Methods Classroom John Lannin, University of Missouri Kathryn Chval, University of Missouri During this working session, participants will engage in discussion about the assessment process (identifying learning targets, assessment strategies, and purposes for assessment) in elementary mathematics methods classes.	Brooke Buckley, Northern Kentucky University Bethany Noblitt, Northern Kentucky University We will share pre-service teachers' common misconceptions involving confidence intervals, activities designed and implemented to address these misconceptions, and the pre-service teachers' responses to these activities. Audience participants will share teaching strategies that may address misunderstandings related to confidence intervals.
Session 40 Woodbrid Pre-Service Teacher Field Experiences Individual Session	ge
Content-focused Coaching with Pre-service Teachers	
Courtney Katharine Baker, George Mason University Jennifer M. Suh, George Mason University	
This session describes how content-focused coaching supported pre- service teachers in developing specialized mathematical knowledge for teaching and equitable teaching practices for diverse learners during their internship through authentic experiences situated in practice.	



Overview of Friday Morning, January 28, 2011			
	8:00a - 9:15a	9:30a - 10:30a	10:45a - 11:45a
Salon A	43. Designing Materials to Support the Learning of Kindergarten through Grade Six Mathematics Teacher Educators - Chapin, Feldman, Chedister, Cheng, Ball, Bass, Sleep, Suzuka & Thames	56. Revising "The Mathematical Education of Teachers" - Beckmann & Lewis	69. Learning to Enact Ambitious Teaching: Using Authentic Student Work in Cycles of Investigations and Enactment - Lampert, Beasley & Ghousseini
Salon B	44. Leveraging Problems of Practice and Teacher Educator Learning in Practice-based Math Methods Courses - Chan, Beasley, Franke, Ghousseini, Kazemi & Lampert	57. Avoiding Agnosticism in Our Practices as Teacher Educators - Herbel-Eisenmann	70. Developing Elementary Mathematics Specialists: Strategies for Certification and Program Development - McGatha & Rigelman
Salon E	45. Focusing on Reasoning and Sense Making in High School Mathematics: Implications for Teacher Education - Martin, Shaughnessy, Strutchens & Dick	58. Tasks, Tools, and Talk: A Framework for Supporting Students' Capacity to Reason and Prove - Hillen, Smith & Arbaugh	71. STaR—Service, Teaching and Research—An Opportunity for New Doctorates in Mathematics Education - Reys, Fisher, Newton, Safi & Welder
Crystal Cove	46. Professional Development Based on Examination of Student Work from Performance Assessment - Becker	59. Mathematics Teacher Educators Working to Assess the Use of Case- based Materials - Breyfogle, Hillman, Ives, Roth McDuffie, Moeller, Rigelman & Steele	72. What Experiences in Methods Courses or Professional Development Best Prepare Teachers to Support English Language Learners? - Bay- Williams, Celedon-Pattichis, Gutierrez, Kitchen & Thompson
Conference Theater	47. NCATE, TEAC, and More: Accreditation Updates and Challenges – Lynch & Fennell	60. Teaching Algebra for Conceptual Understanding - Rakes	73. Examining Teachers' Practice to Determine the Effectiveness of a Professional Learning Task - Newton & Star
Saddleback	48. Assessing Teachers' Knowledge of Mathematical and Pedagogical Content: Findings and Implications - Campbell, Smith, Clark, Nishio, Conant, Rust, Neumayer DePiper & Jones	61. Powerful Pedagogical Practices Program Serves as Catalyst for Statewide Move to High School Problem-based Curriculum Materials - Riser	74. Sustaining Professional Development Partnerships for Enhancing Teacher Quality on Algebra and Technology in the Twenty-first Century - Suh, Freeman & Meints
Trabuco	49. Research in Mathematics Instructional Technology: Current Trends and Future Demands - Ronau, Rakes, Niess, Pugalee, Driskell & Bush	62. Residual Understandings: Pre- service Secondary Mathematics Teachers Making Statistical and Mathematical Connections in a Technology-present Environment - Peters & Zbiek	75. Using Podcasts to Examine Elementary Pre-service Teachers' Mathematics Knowledge for Teaching - Kosiak, Mathison & Hasenbank

Pelican Hill	50. Studying High-quality Mathematics Teachers - Corey, Lewis, Ronfeldt & Lewis	63. Field Experiences – Roundtable Sessions: (a) Gochenaur & White; (b) Schwartz; (c) Franz & Robichaux; (d) Chamberlin	76. Development of Mathematics Teacher Educators – Roundtable Sessions: (a) Selmer & Bolyard; (b) Lowe & Singletary; (c) Rogers; (d) Yoshinobu & Schinck
Shady Canyon	51. Designing a Graduate Mathematics Program for Middle School Teachers - Chesler & Benken	64. Assessing Inquiry-based Instructional Practice with the Electronic Quality of Inquiry Protocol (EQUIP) - Horton	77. Thinking on the Brink: Facilitating the Learning of Pre-service Student Teachers through In-the-Moment Interjections - Lemon & Peterson
Quail Hill	52. Open Questions about the Mathematical Knowledge for Teaching of Secondary Teachers – Jacobson & Howell	65. Examining the Effectiveness of Microteaching Lesson Study (MLS) with Elementary Pre-service Mathematics Teachers - Molina, Nisbet & Fernandez	78. Studying the Impact of Methods Course Tasks on the Mathematical and Pedagogical Understanding of Prospective Teachers - Kinach
Woodbridge	53. Examining Choices of the Mathematics Educator Functioning as "Expert Other" - Brown, Vissa & Mossgrove	66. Necessary and Sufficient Criteria for Evaluating Teacher Effectiveness: A Proactive Stance -Melillo, Mikusa, Graham & Palmiter	79. Developing Prospective Teachers' Understandings of Statistical Literacy - Klerlein & Enderson
Oak Creek	54. Professional Development for "More Effective" Curriculum Use - Taylor, Sherin, Drake & Mitchell	67. Developing Elementary Teachers' Place Value Understanding - Cady & Price	80. Understanding, Adapting, and Enacting: Developing Elementary Pre- service Teachers' Standards-based Curricular Knowledge and Use - Drake, Land, Tyminski, Akwaji- Anderson & Gichobi
Santiago	55. Connecting Mathematics, Children's Mathematical Thinking and Community Knowledge through Community Math Explorations - Aguirre, Roth McDuffie, Bartell & Foote	68. From Talk to Practice: Becoming a Mathematics Teacher of Culturally Diverse Students - Williams & Edwards	81. Listening, Reflecting, and Planning: The Use of Student Interviews in Teachers' Professional Development - Wanko, Keiser & D'Ambrosio

Friday, January 28, 2011

Suzanne H. Chapin, Boston University

Matthew Chedister, Boston University

Hyman Bass, University of Michigan Laurie Sleep, University of Michigan Kara Suzuka, University of Michigan

Mark Thames, University of Michigan

Pedagogical Content Knowledge

in Practice-based Math Methods Courses

Ziv Feldman, Boston University

Development of Mathematics Teacher Educators

through Grade Six Mathematics Teacher Educators

Diana Cheng, Middle Tennessee State University

Deborah Loewenberg Ball, University of Michigan

Designing Materials to Support the Learning of Kindergarten

This session analyzes two projects' use of materials to support mathematics teacher educators in understanding and teaching

mathematical knowledge for teaching. We propose a framework for different types of supports and use it to examine examples from each

Leveraging Problems of Practice and Teacher Educator Learning

Session 43

Symposium

project's materials.

Session 44

Symposium

 Angela Grace Chan, University of California, Los Angeles Heather Beasley, University of Michigan Megan Loef Franke, University of California, Los Angeles Hala Ghousseini, University of Wisconsin Elham Kazemi, University of Washington Magdalene Lampert, University of Michigan Participants will watch video and discuss common problems of practice that arise as pre-service elementary teachers learn how to teach mathematics ambitiously. Teacher educator response and implications for practice-based math methods courses will be addressed. 	Session 48 Saddleback Mathematics Education Policy and Program Issues Symposium Assessing Teachers' Knowledge of Mathematical and Pedagogical Content: Findings and Implications Patricia Forsythe Campbell, University of Maryland Toni M. Smith, George Mason University Lawrence M. Clark, University of Maryland Masako Nishio, University of Maryland Darcy L. Conant, University of Maryland Darcy L. Conant, University of Maryland
Session 45 Salon E Mathematics Education Policy and Program Issues Symposium Focusing on Reasoning and Sense Making in High School Mathematics: Implications for Teacher Education W. W. Gary Martin, Auburn University J. Michael Shaughnessy, Portland State University Marilyn E. Strutchens, Auburn University Tom Dick, Oregon State University NCTM's Focus in High School Mathematics: Reasoning and Sense Making suggests a reexamination of the roles of various stakeholders,	Amber H. Rust, University of Maryland Jill M. Neumayer DePiper, University of Maryland Toya D. Jones, University of Maryland Participants will examine items from a large-scale study measuring the mathematical and pedagogical content knowledge of early-career teachers in Grades 4-8, consider study findings, and discuss implications for item use in research, pre-service teacher education programs, and professional development.
including teacher educators. This session will examine this issue through four critical lenses – curriculum, policy, equity, and technology.	



Crystal Cove

Session 46 **Teacher Professional Development**

Salon A

Salon B

Symposium

Professional Development Based on Examination of Student Work from Performance Assessment

Joanne Rossi Becker, San Jose State University

This session will focus on developing teachers' abilities to examine student work on open-ended performance assessment items and developing re-engagement lessons to deepen understanding of the content of the tasks.

Conference Theater Session 47 Mathematics Education Policy and Program Issues Symposium

NCATE, TEAC, and More: Accreditation Updates and Challenges

Monique C. Lynch, National Council of Teachers of Mathematics Francis (Skip) Fennell, McDaniel College

This session offers up-to-date information about the various accreditation paths including the current NCATE and TEAC processes, as well as their consolidation into CAEP. Participants will learn about navigating the options and timelines for changes on the horizon.

Session 49 Teaching and Learning with Technology Symposium

Research in Mathematics Instructional Technology: Current Trends and Future Demands

Robert N. Ronau, University of Louisville Christopher R. Rakes, Institute of Education Sciences Margaret L. Niess, Oregon State University David K. Pugalee, University of North Carolina, Charlotte Shannon O. Driskell, University of Dayton Sarah Bush, University of Louisville

Four papers will be presented sharing results of a unique area of study from a systematic review of instructional technology research: Student Outcomes, Student Orientation, Mathematical Knowledge for Teaching, and TPACK.

Session 50 Pedagogical Content Knowledge Symposium

Symposium Studying High-quality Mathematics Teachers

Douglas Lyman Corey, *Brigham Young University* Jennifer Lewis, *Wayne State University* Matthew Ronfeldt, *University of Michigan* Catherine Lewis, *Mills College*

We share the results of two studies of high-quality teachers, one from Japan and one from the US, to understand what constitutes highquality instruction. Using two different research methods, we explore which features of instruction are common across effective teachers.

Session 51

Shady Canyon

Pelican Hill

Trabuco

Mathematics Education Policy and Program Issues Discussion Session

Designing a Graduate Mathematics Program for Middle School Teachers

Joshua Chesler, *California State University, Long Beach* Babette M. Benken, *California State University, Long Beach*

What should be included in a content-rich graduate program for middle school mathematics teachers with limited backgrounds in mathematics? In this session, we will explore this question as well as the goals, challenges, and need for implementing such a program.

Session 52 Mathematical Content Knowledge Discussion Session

Quail Hill

Open Questions about the Mathematical Knowledge for Teaching of Secondary Teachers

Erik Jacobson, University of Georgia Heather Howell, New York University

This discussion session will focus on open questions around the idea of mathematical knowledge of teaching for secondary teachers, including how it may differ from that of elementary teachers.

Session 53 Teacher Professional Development Symposium

Examining Choices of the Mathematics Educator Functioning as "Expert Other"

Rachael Brown, *Knowles Science Teaching Foundation* Jeanne M. Vissa, *Knowles Science Teaching Foundation* Jennifer Mossgrove, *Knowles Science Teaching Foundation*

Using our experiences with beginning high school mathematics teachers, we explore online and face-to-face conversations to examine the possible benefits and disadvantages of choices available to mathematics teacher educators in the role of expert other.

Session 54

Teacher Professional Development Discussion Session

Professional Development for "More Effective" Curriculum Use

Megan Westwood Taylor, *Harvard University* Miriam Gamoran Sherin, *Northwestern University* Corey Drake, *Iowa State University* Rebecca Mitchell, *Boston College*

The question of what professional development focused on "more effective" curriculum use should look like will be the focus of the session. Panelists will present new research addressing this question, then presenters and attendants will discuss.

Session 55 Equity and Mathematics Education

Symposium

Santiago

Oak Creek

Connecting Mathematics, Children's Mathematical Thinking and Community Knowledge through Community Math Explorations

Julia Aguirre, *University of Washington, Tacoma* Amy Roth McDuffie, *Washington State University, Tri-Cities* Tonya Bartell, *University of Delaware* Mary Foote, *Queens College, City University of New York*

Presenters and participants will examine pre-service teacher work samples (e.g. mathematics lesson plans) from a specific kindergarten through grade eight mathematics methods assignment (Community Mathematics Exploration) designed to foster effective instruction that connects mathematics, children's mathematical thinking and community-based funds of knowledge.

Woodbridge

Asion 60 Conference Theater Ragogical Content Knowledge phoosium ching Algebra for Conceptual Understanding istopher R. Rakes, Institute of Education Sciences a session will present two findings from a systematic review of abra research. These findings will be used as the basis for the elopment of a resource for helping teachers develop conceptual erstanding of algebra. Saddleback Ragogical Content Knowledge ividual Session verful Pedagogical Practices Program Serves as Catalyst for tewide Move to High School Problem-based Curriculum terials nila Q. Riser, Delaware Mathematics Coalition
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tewide Move to High School Problem-based Curriculum terials
nila Q. Riser, Delaware Mathematics Coalition
 Jamila Q. Riser, <i>Delaware Mathematics Coalition</i> The Powerful Pedagogical Practices (P³) program challenges the notion that high school teachers are unwilling to serve as change agents. This session provides insights about specific strategies to
ivate significant and long term changes in high school mathematics srooms.
sion 62 Trabuco ching and Learning with Technology vidual Session
idual Understandings: Pre-service Secondary Mathematics chers Making Statistical and Mathematical Connections in a hnology-present Environment
an A. Peters, <i>University of Louisville</i> se Mary Zbiek, <i>The Pennsylvania State University</i> ticipants engage with a concept-building activity that promotes
ching and learning consistent with AMTE, CBMS, and NCTM ommendations for mathematics teacher education. Discussion uses on pedagogical use of technology with horizontal and vertical culation of mathematics and statistics content.

Session 63 Field Experiences **Roundtable Sessions**

Pelican Hill

Being a Team Player - Figuring Out the Ground Rules in the Supervisor/Cooperating Teacher Relationship

Deborah L. Gochenaur, Shippensburg University Janet White, Millersville University

Presenters and participants will share their own unique experiences cultivating, training, supporting, and communicating with cooperating teachers at the secondary level. Through discussion and discourse, participants will explore a wide variety of successful strategy ideas that can be immediately implemented.

Designing an Early Kindergarten through Second Grade Mathematics Field Experience Based on High-leverage Teaching Practices

Catherine Stein Schwartz, East Carolina University

Initial findings will be reported from an ongoing project to revise a kindergarten through grade two field experience for pre-service teachers around the notion of high-leverage teaching practices. Comparisons drawn to the control group include pre-service and cooperating teachers' beliefs and instructional practices.

Early Field Experiences as an Opportunity to Formulate Beliefs about Misconceptions and Motivation

Dana Pomykal Franz, Mississippi State University Rebecca Robichaux, Mississippi State University

This session describes the results of an early field experience designed to help pre-service teachers develop understandings about students' misconceptions and motivation in middle and secondary math classes.

Enhancing Elementary Pre-service Teacher Development through Field Experiences with Gifted Students

Scott Allen Chamberlin, University of Wyoming

Elementary pre-service teachers implemented mathematical problem solving tasks with grade three through six gifted students. Teachers met student needs through adapted instruction focusing on readiness and interest. Further, they aligned problem solving tasks with gifted students through differentiation tactics.

Session 64 Pedagogical Content Knowledge Individual Session

Shady Canyon

Assessing Inquiry-based Instructional Practice with the Electronic Quality of Inquiry Protocol (EQUIP)

Bob Horton, Clemson University

This session will introduce EQUIP, a tool for analyzing inquiry-based teaching practices and guiding pre-service and in-service teacher development and reflection. Participants will have the opportunity to interact with EQUIP by observing and assessing a short teaching seament.

Session 65 Pedagogical Content Knowledge Individual Session

Examining the Effectiveness of Microteaching Lesson Study (MLS) with Elementary Pre-service Mathematics Teachers

Roxanne Molina, Florida International University Leslie D. Nisbet, Florida International University Maria L. Fernandez, Florida International University

Research related to the use of Microteaching Lesson Study (MLS) with elementary pre-service teachers enrolled in a mathematics methods course will be presented. Participants will examine pre-service teacher lesson plans and videos to demonstrate growth in their pedagogical content knowledge.

Session 66

Woodbridge **Mathematics Education Policy and Program Issues Discussion Session**

Necessary and Sufficient Criteria for Evaluating Teacher Effectiveness: A Proactive Stance

Judith Melillo, Kent State University Michael Mikusa, Kent State University Teresa Graham, Baldwin Wallace College Jeanette Palmiter, Portland State University

Information on current efforts/research to evaluate teacher effectiveness and their uses will be provided. An interactive workinggroup discussion will focus on what criteria should be included, the implication for teacher education programs, and the profession's ability to influence policy.

Session 67 Pedagogical Content Knowledge **Discussion Session**

Developing Elementary Teachers' Place Value Understanding

Jo Ann Cady, University of Tennessee Jamie Price, University of Tennessee

Presenters encourage dialogue to identify important aspects of place value knowledge for kindergarten through grade two teachers and challenge participants to share/create/debate methods for developing a more robust knowledge of the teaching of place value in kindergarten through grade two pre-service and in-service teachers.

Session 68 **Equity and Mathematics Education Discussion Session**

Santiago

From Talk to Practice: Becoming a Mathematics Teacher of **Culturally Diverse Students**

Desha L. Williams, Kennesaw State University Belinda Edwards, Kennesaw State University

Imagine a preparation program that integrates mathematics instruction with culturally relevant pedagogy, culturally responsive teaching, teaching for social justice, and English Language Learner endorsement. You enter a class for a candidate observation and observe the unexpected. Now what?

Oak Creek

learning to enact ambitious teaching through cycles of investigation and enactment.

Magdalene Lampert, University of Michigan Heather Beasley, University of Michigan

Hala Ghousseini, University of Wisconsin

Friday, January 28, 2011

Pedagogical Content Knowledge

Session 69

Individual Session

Session 70 Development of Mathematics Teacher Educators Individual Session

Work in Cycles of Investigations and Enactment

Developing Elementary Mathematics Specialists: Strategies for Certification and Program Development

Learning to Enact Ambitious Teaching: Using Authentic Student

The session will engage participants in the way authentic student work,

both written and oral, can be used to support pre-service teachers'

Maggie McGatha, University of Louisville Nicole Rigelman, Portland State University

AMTE sponsored a conference in June 2010 for states interested in offering an Elementary Mathematics Specialist (EMS) certification. In this session we will share outcomes from that conference and discuss how AMTE might continue to support states in this initiative.

Session 71 Development of Mathematics Teacher Educators Symposium

STaR—Service, Teaching and Research—An Opportunity for New Doctorates in Mathematics Education

Robert Reys, University of Missouri Brian Fisher, Pepperdine University Jill Newton, Purdue University Farshid Safi, The College of New Jersey Rachael M. Welder, Hunter College, The City University of New York

In this session newly hired mathematics education doctorates in colleges/universities will share experiences. Participants will reflect on the challenges of their faculty positions and discuss ways the STaR project has facilitated their transition through additional professional growth and networking opportunities.

Session 72 Equity and Mathematics Education Discussion Session

Crystal Cove

What Experiences in Methods Courses or Professional Development Best Prepare Teachers to Support ELLs?

Jennifer Bay-Williams, *University of Louisville* Sylvia Celedon-Pattichis, *University of New Mexico* Rochelle Gutierrez, *University of Illinois, Urbana-Champaign* Richard Kitchen, *The University of New Mexico* Denisse Thompson, *University of South Florida*

Teacher learning experiences targeting the needs of English language learners vary in focus (e.g., empathy or instructional strategies) and scope (e.g., a reading or unit). We will discuss activities and assessments that can impact kindergarten through grade twelve teachers' capacity to support ELLs.

Session 73 Teacher Professional Development Individual Session

Examining Teachers' Practice to Determine the Effectiveness of a Professional Learning Task

Kristie Jones Newton, *Temple University* Jon R. Star, *Harvard University*

What evidence can be seen in a teacher's practice that indicates the impact of practice-based professional development? In this session, we facilitate a discussion about this question, using our own research project as a starting point.

Session 74

Salon A

Salon B

Salon E

School and University Partnerships and Projects Individual Session

Sustaining Professional Development Partnerships for Enhancing Teacher Quality on Algebra and Technology in the Twenty-first Century

Jennifer M. Suh, George Mason University Patti Freeman, Fairfax County Public Schools Kat Meints, Prince William County Schools

This school-university design team will describe the design and implementation of a strategic mathematics professional learning model that included: content-focused summer institutes; academic year follow-up lesson study at school sites; and an ongoing support network via onsite and online mentoring.

Session 75 Pedagogical Content Knowledge Individual Session

Using Podcasts to Examine Elementary Pre-service Teachers' Mathematics Knowledge for Teaching

Jennifer Kosiak, University of Wisconsin, La Crosse Heather Mathison, University of Wisconsin, La Crosse Jon F. Hasenbank, University of Wisconsin, La Crosse

Current efforts in mathematics education have sought to categorize specialized knowledge for teaching. In this session, we report on a project that utilized podcasts as a method for collecting, analyzing, and describing elementary teacher candidates' mathematics knowledge for teaching.

10:45a - 11:45a

Conference Theater

Saddleback

Trabuco

Session 76 Development of Mathematics Teacher Educators Roundtable Session	Pelican Hill	Session 78 Mathematical Content Knowledge Discussion Session	Quail Hill	
An Emerging Framework for Two Mathematics Ec Knowledge of Practice	lucators Building	Studying the Impact of Methods Course Tasks on t Mathematical and Pedagogical Understanding of P Teachers		
Sarah Selmer, <i>West Virginia University</i> Johnna Bolyard, <i>West Virginia University</i>		Barbara M. Kinach, Arizona State University		
This presentation shares two mathematics teacher educators' efforts to improve practice through building a collaborative shared knowledge base. Through present efforts, an emergent design framework for sustainable, scholarly work focused on this work will also be shared.		What impact do "methods" course tasks have on the mathematics "content" knowledge and developing teaching practice of pre-service teachers? The organizer shares her experience with manipulative tasks to begin the discussion. The session aims to form a collaborative working group.		
Preparing Future Mathematics Teacher Educators Reflecting on Their Philosophical Beliefs about M Mathematics Education		Session 79 Mathematical Content Knowledge	Woodbridge	
Laura Lowe, <i>University of Georgia</i> Laura Marie Singletary, <i>University of Georgia</i>	ura Marie Singletary, <i>University of Georgia</i> is session describes a mathematics education doctoral seminar in athematics education designed to provide future mathematics teacher ucators the opportunity to formally develop their philosophy of		of Statistical	
mathematics education designed to provide future ma			Developing Prospective Teachers' Understandings of Statistical Literacy Jacob Klerlein, Middle Tennessee State University Mary C. Enderson, Middle Tennessee State University	
Graduate Teaching Assistants Teaching Prospective Elementary Feachers Geometry: Examining Mathematics TAs' Teaching Practices and Beliefs		Statistical literacy is a relatively new topic for many mathematics teachers. In this session, tasks and problems, that have been developed and implemented in courses for prospective middle and secondary mathematics teachers, will be presented and discussed.		
Kimberly Cervello Rogers, Michigan State University				
This qualitative, multiple case study dissertation uses classroom observations and interviews to examine the teaching practices, beliefs about mathematics teaching, instructional needs, and professional development opportunities of mathematics graduate teaching assistants who are teaching geometry to prospective elementary teachers.		Session 80 Pedagogical Content Knowledge Symposium Understanding, Adapting, and Enacting: Developin Pre-service Teachers' Standards-based Curricular I Use		
Professional Development of Mathematics Instruct College Level: The Inquiry-based Learning Works		Corey Drake, <i>Iowa State University</i> Tonia Land, <i>Iowa State University</i>		
Stan Yoshinobu, <i>Cal Poly, San Luis Obispo</i> Amelie Schinck, <i>Cal Poly, San Luis Obispo</i>		Andrew Tyminski, <i>Clemson University</i> Comfort J. Akwaji-Anderson, <i>Iowa State University</i> Mary Gichobi, <i>Iowa State University</i>		
In this session a working model for professional deve college-level faculty will be shared and discussed.	lopment of	We will present several activities we have designed to development of elementary pre-service teachers' curric		
Session 77 Pre-Service Teacher Field Experiences Individual Session	Shady Canyon	We will share findings from pre-/post-semester curricular knowledge		
Thinking on the Brink: Facilitating the Learning o Student Teachers through In-the-Moment Interjec		Session 81 Teacher Professional Development	Santiago	
Travis Lemon, <i>Brigham Young University</i> Blake Peterson, <i>Brigham Young University</i>		Individual Session Listening, Reflecting, and Planning: The Use of Stu	ident Interviews	
Have you ever wanted to interject during the lesson of student teacher? Pre-service teachers often struggle discourse and capitalize on teachable moments. In-the interjections made by a cooperating teacher will be st discussed.	to create rich ne-moment	<i>in Teachers' Professional Development</i> Jeffrey J. Wanko, <i>Miami University</i> Jane Keiser, <i>Miami University</i> Beatriz D'Ambrosio, <i>Miami University</i>		
		Participants will analyze student interviews and corresp reflections. The group will discuss the use of student in catalyst for teachers' growth and development in plann grounded in student knowledge.	nterviews as a	

Friday, January 28, 2011

11:45a - 1:00p



NOTES

Overview of Friday Afternoon, January 28, 2011			
	1:00p - 1:45p	2:00p - 3:00p	3:15p - 4:00p
Salon A	82. Insights from Project PrIME: The Impact of a Coaching Model in a Summer Institute - Harmon & Barlow	95. Joining with Teachers to Construct an Emergent Curriculum: Lessons from a Partnership in Grades Kindergarten through Six - Galindo, Yoder, Rapacki & Cross	108. Common Core State Standards and Assessment Consortia - History, Status, and What Are the Next Steps - Kepner
Salon B	83. Collaborative Lesson Study in Early Field Experiences - Bieda, Huhn, Kelly & Males	96. NCSM Resources for Mathematics Teacher Educators – Briars & Mitchell	109. Adapting Lesson Study to Improve the Quality of Elementary Pre-service Teachers' Reflection on Practice - Tsegai & Galindo
Salon E	84. Methods Course Materials for Pre-service Teachers Learning about and from Standards-based Curricula - Land	97. Playing/Changing the Game: Rethinking the Knowledge that Mathematics Teachers Need to Teach Marginalized Students - Gutierrez	110. Changing Teachers' Pedagogical Knowledge of Measurement through Professional Development - Strother, Brendefur & Peck
Crystal Cove	85. Examining Mathematics Knowledge for Teaching (MKT) through Classroom Observations - Hasenbank, Kosiak & Mathison	98. Mathematics Teacher Educator - New Journal of AMTE and NCTM – Flores, Reys, and Smith	111. Learning There Together: Mediated Field Experiences in Teacher Education - Campbell, Zavala, Dunleavy, Cundard & Kazemi
Conference Theater	86. Students' Mathematics Thinking: The "Struggles" Student Teachers Notice and the Thinking They Find "Interesting" - Leatham & Peterson	99. RTI (Response to Intervention) and Mathematics: The Potential for Mathematics Education - Gersten & Karp	112. Searching for Treasure: A Metaphor for Thinking about the Beginning Years of Academia - Chauvot
Saddleback	87. Using Empirical Classroom Results to Inform Modifications on a Hypothetical Learning Trajectory for Area - Miller, Cullen & Tobias	100. Pre-service Teachers' Understanding of Relational Thinking - Moyer, Magiera & van den Kieboom	113. Using Critical Discourse Focusing on Reason and Proof to Develop Mathematical Pedagogical Content Knowledge - Gillow-Wiles
Trabuco	88. Expansion in the Classroom: Teaching Pre- service Teachers to Incorporate More Math in Their Lessons - Holaway	101. Middle School Teachers' Conceptions of Justification: Why Use It in the Classroom? - Thanheiser, Staples, Heim & McCaffrey	114. Using an Equipartitioning Learning Trajectory to Restructure Prospective Elementary Teachers' Knowledge - Mojica

Pelican Hill	89. Technological Pedagogical Content Knowledge (TPACK) – Roundtable Sessions: (a) Driskell, Browning, Harrington, Johnston & Niess; (b) Zelkowski; (c) Mudzimir & Shafer	 102. Pre-service Teacher Course and Program Design – Roundtable Sessions: (a) Abney & Shiver; (b) Joswick & Manouchehri; (c) Benjamin; (d) Metlitzky & Landman 	 115. Classroom Connectivity Technology – Roundtable Sessions: (a) Pape, Cifuentes, Prosser, & Wider-Lewis; (b) Hicks; (c) Olson, Gilbert & Olson
Shady Canyon	90. Preparing Teachers to Teach Mathematics to Culturally Diverse Students: Insights from a Community- based Field Experience - Vomvoridi-Ivanovic	<i>103. Pivotal Teaching Moments -</i> Stockero, Van Zoest & Taylor	116. Encouraging Pre-service Teachers' Relational Thinking through Exploring the Hierarchical Classification of Quadrilaterals: A Teaching Experiment - Ng
Quail Hill	91. Are Models Tools for Understanding or Algorithms to Memorize? - Moon	104. Developing Consumers of Coaching - Yopp & Burroughs	117. Language Use with Defining the Whole to Develop Pre-service Elementary Teachers' Understanding of Fractions - Tobias
Woodbridge	92. Using Online Discussion Boards to Promote Re- formation of Pre-service Elementary Teachers' Beliefs about Teaching Mathematics - Webel	105. Tracing Pedagogical Moves in Algebra through Student Solution Strategies - Nix, Lepak, Seashore & Reinholz	118. Mathematics Teachers' Selection and Use of Instructional Materials - Edenfield
Oak Creek	93. Problem Solving Pen-pals: A Partnership between Pre- service Teachers and Kindergarten through Grade Six Students to Improve Problem Solving - Bolyard & Lynch	<i>106. Teaching Pre-service Teachers How to Reason about Statistics -</i> Huey	119. Session canceled
Santiago	94. "Random" Thoughts about Probability and Statistics: The Development of Kindergarten through Grade Eight Mathematics Specialists' Understandings - Smith & Hjalmarson	107. Developing an Equity Pedagogy for Mathematics: An Investigation of Pre-service Teachers' Conceptions - Johnson	120. Instructional Perspectives on Combinations and Permutations – Cadwallader Olsker, Engelke & Annin

Friday, January 28, 2011 1:00p - 1:45p Session 82 Salon A Session 86 **Conference Theater** Pedagogical Content Knowledge **Teacher Professional Development** Individual Session Individual Session Insights from Project PrIME: The Impact of a Coaching Model in a Students' Mathematics Thinking: The "Struggles" Student Teachers Notice and the Thinking They Find "Interesting" Summer Institute Shannon Harmon, University of Mississippi Keith Rigby Leatham, Brigham Young University Angela Till Barlow, University of Mississippi Blake Peterson, Brigham Young University Presenters will describe the coaching model utilized in their summer We characterize the thinking student teachers notice when asked to institute for middle school mathematics teachers. Video footage of identify instances when students were struggling with mathematics. project participants engaging in the coaching process will be discussed. Come discuss what these novice teachers found "interesting," plausible explanations for somewhat surprising results, and implications for Insights will be shared regarding the impact of the model. mathematics teacher education programs. Session 83 Salon B School and University Partnerships and Projects Session 87 Saddleback Individual Session Pedagogical Content Knowledge Individual Session Collaborative Lesson Study in Early Field Experiences Using Empirical Classroom Results to Inform Modifications on a Kristen Bieda, Michigan State University Hypothetical Learning Trajectory for Area Craig Huhn, Holt High School Amy Kelly, Mason High School Amanda Miller, Illinois State University Craig Cullen, Illinois State University Josh Males, Mason High School Jennifer M. Tobias, Illinois State University This session will present and discuss an initiative between high school mathematics teachers and teacher education faculty to support This session will share findings on how fourth graders develop mentoring of pre-service teachers and promote mentor teacher conceptions of area. Their mathematical thinking across five lessons, development through collaborative lesson study. as part of our work with developing a learning trajectory for area, will be illustrated through video clips and work samples. Session 84 Salon E Pedagogical Content Knowledge Session 88 Trabuco Individual Session **Development of Mathematics Teacher Educators** Individual Session Methods Course Materials for Pre-service Teachers Learning about and from Standards-based Curricula Expansion in the Classroom: Teaching Pre-service Teachers to Incorporate More Math in Their Lessons Tonia Land, Iowa State University Calli Holaway, University of Alabama We describe a set of elementary methods course materials we have developed, piloted, and researched. The materials are structured Beginning teachers often have difficulty in designing activities that around the use of Standards-based curriculum materials, the incorporate several mathematical topics. This session will explore how mathematics teacher educators can assist pre-service teachers in Framework for Analyzing Teaching, and children's mathematical expanding "mathematics-limited" activities to include more mathematics thinking. as well as higher-order thinking skills. **Crystal Cove** Session 85 Pedagogical Content Knowledge Individual Session Examining Mathematics Knowledge for Teaching (MKT) through Classroom Observations Jon F. Hasenbank, University of Wisconsin, La Crosse Jennifer Kosiak, University of Wisconsin, La Crosse Heather Mathison, University of Wisconsin, La Crosse We report on the development, validation, and pilot of two observation instruments for measuring MKT of mathematics teachers. The projects aim to improve upon existing assessment systems by increasing consistency across programs and enhancing the resolution of the data collected.

Preparing Teachers to Integrate Technology in Teaching Mathematics: What the Research Tells Us

Shannon O. Driskell, *University of Dayton* Christine Browning, *Western Michigan University* Rachel A. Harrington, *Western Oregon University* Christopher Johnston Margaret L. Niess, *Oregon State University*

We will report on the findings of our synthesis with regards to what we currently know about preparing future teachers to integrate technology in their teaching and make recommendations on areas that need additional research. Session includes opportunity for discussion.

A Longitudinal Study of a Secondary Mathematics Pre-service Program's TPACK Developmental Effectiveness: Lessons Learned

Jeremy S. Zelkowski, The University of Alabama

For two years, a cohort of secondary mathematics pre-service teachers participated in a new approach to improving their TPACK and beliefs about teaching secondary mathematics through multiple forms of technology. Essential was not initially in their vocabulary; some changed their beliefs.

Helping Pre-service Teachers Develop Technological Pedagogical Content Knowledge (TPACK) through Integration of Methods and Modeling Courses

Rejoice Mudzimiri, *Montana State University* Kathryn G. Shafer, *Ball State University*

This session describes the impact of concurrent enrollment in a methods and a technology-intensive mathematical modeling course on the development of TPACK in pre-service teachers. A description of the collaboration and major findings will be presented and discussed.

Session 90 Equity and Mathematics Education Individual Session

Shady Canyon

Preparing Teachers to Teach Mathematics to Culturally Diverse Students: Insights from a Community-based Field Experience

Eugenia Vomvoridi-Ivanovic, University of South Florida

This session discusses the affordances and constraints of a community-based field experience where pre-service elementary teachers interact with parents, teachers, and culturally diverse students in an after-school mathematics enrichment program in conjunction with their university-based mathematics methods course.

Session 91 Pedagogical Content Knowledge Individual Session

Are Models Tools for Understanding or Algorithms to Memorize?

Kyunghee Moon, University of California, Santa Barbara

Models are widely used as tools to support mathematical understanding. However, even for teachers, constructing models and understanding mathematical meanings embedded in models might not be easy. How prospective secondary mathematics teachers make sense of models will be discussed.

Session 92 Pedagogical Content Knowledge Individual Session

Using Online Discussion Boards to Promote Re-formation of Preservice Elementary Teachers' Beliefs about Teaching Mathematics

Corey Webel, Montclair State University

In this session, a methods instructor will share how online discussions gave pre-service elementary teachers opportunities to share different beliefs about teaching mathematics and consider and revise them in light of class activities and field experiences.

Session 93

Oak Creek

Santiago

Woodbridge

Quail Hill

School and University Partnerships and Projects Individual Session

Problem Solving Pen-pals: A Partnership between Pre-service Teachers and Kindergarten through Grade Six Students to Improve Problem Solving

Johnna Bolyard, West Virginia University Sararose Lynch, Frankfort Middle School

A Problem-Solving Pen-Pal project between pre-service teachers and sixth graders identified weaknesses in metacognitive skills in both groups. These results prompted instructional changes at both the middle school and pre-service levels designed to address these needs.

Session 94 Mathematical Content Knowledge Individual Session

"Random" Thoughts about Probability and Statistics: The Development of Kindergarten through Grade Eight Mathematics Specialists' Understandings

Toni M. Smith, George Mason University Margret A. Hjalmarson, George Mason University

Participants will engage with tasks used to study the development of mathematics specialists' understandings of randomness and its role in statistics/probability; will learn the results of that study; and will discuss implications for the development of teachers and teacher leaders.

Friday, January 28, 2011

Session 95 School and University Partnerships and Projects Individual Session

Joining with Teachers to Construct an Emergent Curriculum: Lessons from a Partnership in Grades Kindergarten through Six

Enrique Galindo, Indiana University Gina Borgioli Yoder, Indiana University Purdue University at Indianapolis Lauren J. Rapacki, Indiana University Dionne Cross. Indiana University

We share our approach and lessons learned from a partnership project supporting kindergarten through grade six teachers in fostering students' algebraic thinking. Success has been the result of building trust by constructing together an emergent curriculum responsive to teachers' needs.

Session 96 NCSM President Individual Session Salon B

NCSM Resources for Mathematics Teacher Educators

Diane J. Briars, National Council of Supervisors of Mathematics President

Suzanne Mitchell, NCSM President-Elect, Arkansas State University

Learn about the latest NCSM resources to support the development of mathematics teacher educators, coaches, and teachers including the PRIME Leadership Framework, position papers and other print materials, along with videos, assessments and student work samples from the Inside Mathematics website.

Session 97

Salon E

AMTE Excellence in Scholarship in Mathematics Teacher Education Award Winner

Playing/Changing the Game: Rethinking the Knowledge that Mathematics Teachers Need to Teach Marginalized Students

Rochelle Gutierrez, University of Illinois, Urbana-Champaign

More than just content or pedagogical knowledge, teachers must develop "political knowledge" and become comfortable with uncertainty, seeing tension as a means to develop new knowledge. I highlight what this means in practice for pre-service teachers.

Session 98 Association of Mathematics Teacher Educators Individual Session

Crystal Cove

Mathematics Teacher Educator - New Journal of AMTE and NCTM

Alfinio Flores, *University of Delaware* Barbara J. Reys, *University of Missouri* Margaret (Peg) Smith, *University of Pittsburgh*

This session will highlight the details of the new journal, introduce the first editor and editorial panel, and discuss the solicitation of manuscripts and timeline for publication of the first issue. Questions and suggestions from the audience are encouraged.

Session 101 Teacher Professional Development

Individual Session

Trabuco

Saddleback

Middle School Teachers' Conceptions of Justification: Why Use It in the Classroom?

Eva Thanheiser, *Portland State University* Megan Staples, *University of Connecticut* Krista Heim, *Portland State University* Carolyn McCaffrey, *Portland State University*

We share (a) how middle school teachers who incorporate justification into their classrooms regularly think about justification and its role in their classrooms and (b) how that thinking changed over their participation in a prolonged professional development experience focused on justification.

Salon A Session 99

Equity and Mathematics Education Individual Session

RTI (Response to Intervention) and Mathematics: The Potential for Mathematics Education

Russell Gersten, Instructional Research Group Karen S. Karp, University of Louisville

This session addresses the evidence base for RTI in mathematics. We will clarify the level of evidence for the eight recommended practices and discuss, with active audience input, the potential for mathematics education to play a leading role in this initiative.

Session 100 Mathematical Content Knowledge Individual Session

Pre-service Teachers' Understanding of Relational Thinking

John C. Moyer, *Marquette University* Marta T. Magiera, *Marquette University* Leigh A. van den Kieboom, *Marquette University*

Participants will discuss the results of our research investigation into classroom and fieldwork activities designed to enhance pre-service teachers' relational thinking ability. The activities included a requirement to conduct and analyze interviews aimed at determining students' relational thinking ability.

2:00p - 3:00p

Conference Theater

Session 102 Pre-service Teacher Course and Program Design **Roundtable Sessions**

Preparing Math Majors to Teach

Angel Rowe Abney, Georgia College & State University Janet M. Shiver, Central Washington University

This session will provide an overview of a newly developed track for mathematics majors wishing to teach. We will discuss our motivation for its development, the curriculum structure, course content, and the struggles and successes of the first implementation.

Bridging Theory and Practice: Course Design in Secondary Mathematics Teacher Preparation

Candace Joswick, The Ohio State University Azita Manouchehri, The Ohio State University

Two specific courses have been designed that attempt to help secondary teachers gain greater understanding of current research on learning and teaching of mathematics and ways in which this body of work can inform their instructional design and assessment.

Content Knowledge for Teaching Middle/Secondary Mathematics

Diane Benjamin, Edgewood College

This session explores an innovative undergraduate course for middlesecondary pre-service teachers aimed at solidifying content knowledge needed for teaching. Overview of research underpinnings, learning objectives, activities and projects, and initial assessment findings are included. Concrete examples offer a launching-point for dialog.

From In-service to Pre-service: A Professional Development Program Moves Forward

Lilian Metlitzky, Cal Poly, Pomona Greisy Winicki Landman, Cal Poly, Pomona

We will discuss the expansion of the SMI (Strengthening Mathematics Instruction) in-service program into pre-service classes. Participants will be exposed to the framework underpinning it; they will be engaged in some tasks designed for pre-service teachers and will analyze them.

Session 103 **Development of Mathematics Teacher Educators** Individual Session

Pivotal Teaching Moments

Shari L. Stockero, Michigan Technological University Laura R. Van Zoest, Western Michigan University Cynthia E. Taylor, University of Missouri

We will illustrate the construct of pivotal teaching moments and engage participants in discussions about how teacher educators might improve teachers' abilities to base instruction on student thinking by supporting them in learning to recognize and respond to such moments.

Session 104 **Teacher Professional Development** Individual Session

Developing Consumers of Coaching

David Yopp, Montana State University Elizabeth Burroughs, Montana State University

This presentation examines a model for orienting teachers who are receiving mathematics coaching. It describes the development of and results from an instrument designed to measure and communicate teachers' needs to coaches.

Session 105 Pedagogical Content Knowledge Individual Session

Tracing Pedagogical Moves in Algebra through Student Solution Strategies

Sarah Nix, University of California, Berkeley Jerilynn Lepak, Michigan State University Kimberly Seashore, University of California, Berkeley Daniel Reinholz, University of California, Berkeley

We will share our characterization of "good" algebra word problems, those problems which can be used to develop and assess robust student understanding. We will also explore how teaching practices influence strategies students employ in solving complex algebraic word problems.

Session 106 Mathematical Content Knowledge Individual Session

Teaching Pre-service Teachers How to Reason about Statistics

Maryann Elizabeth Huey, The University of Missouri

This interactive session will focus on the development of middle and high school pre-service mathematics teachers' statistical reasoning during a content course. Responses to real-world tasks will be shared, and implications for teaching and designing statistics content courses will be discussed.

Session 107 Equity and Mathematics Education Individual Session

Developing an Equity Pedagogy for Mathematics: An Investigation of Pre-service Teachers' Conceptions

Delayne Johnson, Clemson University

This study examined pre-service teachers' conceptions of equity and explanations of why race was/was not addressed as relevant to equity in mathematics. We will examine participants' responses and explore implications for equipping future teachers to develop an equity pedagogy.

Quail Hill

Woodbridge

Oak Creek

Santiago

Shady Canyon

Pelican Hill

Friday, January 28, 2011	3:15p - 4:00p
Session 108 Salon A	Session 112 Conference Theater
Mathematics Education Policy and Program Issues	Development of Mathematics Teacher Educators
Individual Session	Individual Session
Common Core State Standards and Assessment Consortia - History, Status, and What Are the Next Steps?	Searching for Treasure: A Metaphor for Thinking about the Beginning Years of Academia
Henry Sieber Kepner, University of Wisconsin, Milwaukee	Jennifer Chauvot, University of Houston
Recently, the standards/assessment movement has been dominated	Aspects of a classic mathematics problem are compared to
by the political arena. This session will look at the process and focus	experiences of junior faculty seeking promotion and tenure. Drawing
on challenges NCTM has in gaining influence, and impact on these	from this analysis and from literature about the professional
decisions. Participants will share experiences across states and	development of mathematics teacher educators, recommendations to
consortia.	support junior faculty are provided.
Session 109 Salon B	Session 113 Saddleback
Pre-Service Teacher Field Experiences	Mathematical Content Knowledge
Individual Session	Individual Session
Adapting Lesson Study to Improve the Quality of Elementary Pre-	Using Critical Discourse Focusing on Reason and Proof to
service Teachers' Reflection on Practice	Develop Mathematical Pedagogical Content Knowledge
Samuel K. Tsegai, <i>Indiana University</i> Enrique Galindo, <i>Indiana University</i>	Henry Gillow-Wiles, Oregon State University
We share results from an NSF-funded project that supports future	Analysis of written and video-taped discourse from a ten day summer
elementary teachers to learn to reflect on practice using lesson study.	institute focusing on reasoning and proof skills indicated that changes
Lesson study is used both to scaffold their reflections on practice and to	in understanding coincided with changes in the structure of student
examine the quality of their reflections.	discourse. Further research will utilize Scoop Portfolios.
Session 110 Salon E	Session 114 Trabuco
Pedagogical Content Knowledge	Pedagogical Content Knowledge
Individual Session	Individual Session
Changing Teachers' Pedagogical Knowledge of Measurement through Professional Development Sam Strother, Boise State University Jonathan Brendefur, Boise State University Duane Peck, Boise State University First, this presentation will highlight a professional development project. Second, it will focus on the change in teachers' knowledge related to key ideas in measurement. Finally, it will highlight the changes in the teachers' instructional practices over the eight months of professional development. Session 111 Crystal Cove Pre-Service Teacher Field Experiences Individual Session Crystal Cove Learning There Together: Mediated Field Experiences in Teacher Education Sunshine Campbell, Evergreen State College Maria del Rosario Zavala, University of Washington Teresa Kathleen Dunleavy, University of Washington Adrian Cundard, University of Washington Elham Kazemi, University of Washington Educators from one elementary/secondary teaching program present findings on the impact of common field experiences in methods Educators in methods	Using an Equipartitioning Learning Trajectory to Restructure Prospective Elementary Teachers' Knowledge Gemma Mojica, University of North Carolina, Greensboro Results will be shared from work on using a learning trajectories approach to support prospective teachers as they restructure their knowledge. Instructional activities that can be utilized within a methods course to support this development will be discussed.
findings on the impact of common field experiences in methods courses. Rich learning opportunities were gained by novice teachers, classroom teachers and teacher educators. Designs and challenges will be discussed.	

Session 115 Classroom Connectivity Technology Roundtable Sessions

Professional Development to Support Community College Teachers' Implementation of Classroom Connectivity Technology

Stephen Joseph Pape, *University of Florida* Paula Cifuentes, *Florida Gateway College* Sherri Prosser, *University of Florida* Felicia Wider-Lewis, *University of Florida*

This session will describe a year-long professional development project to support community college mathematics instructors in implementing classroom connectivity technology. The faculty examined classroom discourse and learned to use the TI-Nspire with Navigator as a tool to facilitate their instructional practices.

Algebra Teaching Knowledge with Technology: What Does It Look Like?

Sarah Jane Hicks, Rockhurst University

I will illustrate secondary algebra teaching and knowledge with the new TI-Nspire calculator and engage participants in discussing what knowledge teachers should possess and utilize while teaching high school algebra with technology along with implications for teacher education.

The Nexus between Formative Assessment and Technology in Networked Classrooms. What Have We Learned?

Judith Olson, *University of Hawaii* Michael Gilbert, *University of Massachusetts, Boston* Melfried Olson, *University of Hawaii*

This session will report on a professional development research project with seventh-grade teachers. The session will discuss the interaction of teacher content knowledge, formative assessment, student and teacher discourse, pedagogical issues and establishing social norms, and issues in implementing technology.

Session 116 Mathematical Content Knowledge Individual Session

Pelican Hill

Encouraging Pre-service Teachers' Relational Thinking through Exploring the Hierarchical Classification of Quadrilaterals: A Teaching Experiment

Dicky Noto Afiah Ng, Utah State University

This session shares a teaching experiment with pre-service elementary teachers in developing their geometric reasoning by exploring the hierarchical structure of quadrilaterals. Three different strategies were compared: (a) imposition of properties, (b) relaxation of properties, and (c) both imposition and relaxation.

Session 117 Mathematical Content Knowledge Individual Session

Language Use with Defining the Whole to Develop Pre-service Elementary Teachers' Understanding of Fractions

Jennifer M. Tobias, Illinois State University

A classroom teaching experiment was conducted in an elementary mathematics content course to examine pre-service teachers' development of fraction concepts and operations. Development of language use with fractions will be examined through video clips and student work samples.

Session 118

Woodbridge

Santiago

Mathematics Education Policy and Program Issues Individual Session

Mathematics Teachers' Selection and Use of Instructional Materials

Kelly W. Edenfield, Kennesaw State University

This presentation highlights the findings of a dissertation study that examined a group of high school teachers' evaluation, selection, and use of mathematics instructional materials during their first implementation of a new course in the state mathematics curriculum.

Session 120 Mathematical Content Knowledge Individual Session

Instructional Perspectives on Combinations and Permutations

Todd Cadwallader Olsker, California State University, Fullerton Nicole Engelke, California State University, Fullerton Scott Annin, California State University, Fullerton

When solving counting problems, students are taught to use a combination formula when order does not matter, and to use a permutation formula when order does matter. We suggest that this is a false dichotomy and will present alternatives.

Shady Canyon

Quail Hill

Friday, Janu<u>ary 28, 2011</u>





Judith E. Jacobs Lecture Salon A/B

Learning for Tomorrow: Challenges and Opportunities in Mathematics Teacher Education Joan Ferrini-Mundy, Michigan State University

Mathematics teacher educators face novel challenges and unprecedented opportunities today. A recent report of the President's Council of Advisors on Science and Technology calls on the nation to "recruit and train 100,000 great STEM teachers over the next decade who are able to prepare and inspire students." How can the mathematics teacher education community assume leadership in designing, implementing, and studying the impact of such preparation? Mathematics should be the focal point of the current "STEM education" movement, especially with the availability of Common Core State Standards. What is the role for the mathematics teacher education community? And, the educational landscape is changing rapidly. Students already have access to learning tools "anytime, anywhere." Teachers have direct access to the data and tools used by mathematicians and scientists. Exciting activities are underway in mathematics teacher education and professional development today. As we look toward tomorrow, what are the implications and possibilities for research and practice in teacher preparation and professional development?

Friday, January 28, 2011



6:00p - 7:15p

NOTES

	OVERVIEW OF SATURDAY	y, January 29, 2011
	8:00a - 8:45a	9:00a - 10:15a
Salon A	121. The Teacher Education and Development Study in Mathematics: Preparation for Teaching in 17 Countries - Senk & Tatto	134. Common Core State Standards (CCSS) and the Preparation of Teachers of Mathematics - Kersaint, McCallum, Silver & Reys
Salon B	122. Effect of Lesson Implementation, Assessment of Student Work and Reflection on Pre-service Teachers' Understanding of Fractions - Wilkerson, Cooper, Meyer & Baker	135. Scaling Practice-based Professional Development: Issues and Design Considerations - Boerst, Sleep, Suzuka, Ball, Wray & Kobett
Salon E	123. Teachers' Descriptions of Worthwhile Mathematical Tasks: Experiences Implementing a Task-based, Reform-oriented Curriculum - Singletary, de Araujo & Lowe	136. Understanding the Role of Mathematics in Emerging Practice through Balance among Mathematics, Sensitivity and Management - Zbiek, Heid & Blume
Crystal Cove	124. Action Research about Facilitating High Quality Teacher Action Research - Heaton & Smith	137. Mathematics Teacher Noticing: Seeing through Teachers' Eyes - Philipp, Sherin, Jacobs, Goldsmith, Santagata, Seago & van Es
Conference Theater	125. Preparing Pre-service Teachers to Help Children Develop Proportional Reasoning - Assad & Vogel	138. Advocating for Mathematics Teacher Education Programs in a Time of Challenge – Strutchens, Karp & Cronin
Saddleback	126. Supporting Pre-service Teachers in Understanding Themselves as Mathematics Teachers - Neumayer DePiper & Edwards	139. Clinical Interviews: Window into Pre-service Teachers' Learning about Students' Mathematical Thinking - Magiera, Moyer & van den Kieboom
Trabuco	127. Articulated Learning Trajectories in Middle- Grades Mathematics Textbooks: Implications for Teacher Education Programs and Coursework - Olson	140. Content-focused Methods Courses: Integrating Pedagogy and Mathematical Content that Is Central to the Grade Seven through Twelve Curriculum - Steele, Smith & Hillen
Pelican Hill	128. Professional Development of Teachers – Roundtable Sessions: (a) Bahr & Monroe; (b) Culpepper, Hanna & Vyas; (c) Novak & Powers	141. Exploration of an Instructional Activity: The Learning of Pre-service Teachers, In-service Teachers, and Elementary Students - Hintz, Chan & Kelley- Petersen

Shady Canyon	129. Supporting the Mathematical Development of Graduate Pre-service Elementary Teachers - Welder & Champion	142. Capturing Classroom Practices that Lead to Competence with Complex Algebraic Tasks - Kim, Lepak, Levin, Louie, Reinholz, Shah, Wernet, & Floden
Quail Hill	130. Toward the Development of Critically Conscious Pre-service Elementary Teachers - Hensberry & Bostic	143. Meaningfully Integrating Field Experience and Methods - Hughes, Noh & Balong
Woodbridge	<i>131. Mathematics Lesson Planning Practices</i> - Amador	144. Leverage Points in Teacher Knowledge: Examining Relationships between Content Knowledge and Pedagogical Content Knowledge of Practicing Teachers - Dingman, Kent, Empson & Baek
Oak Creek	132. Pre-service Teachers' Problem Solving Strategies and Math Anxiety in Relation to Contextual Versus Non-contextual Problems - Nisbet, Molina & Fernandez	145. Establishing Valid Mathematical Justification for Teachers and Students - Campbell, Lesseig, Perkowski, Elliott, & Lannin
Santiago	133. Pre-service Teachers' Explanation of Students' Invented Strategies for Whole Number Subtraction - Son & Matheny	146. International Teaching Experiences Informing and Shaping our Practices in Teacher Education - Hillman, Moskowitz, Stein & Beckmann

AMTE 2011 Annual Conference

Saturday, January 29, 2011

Session 121 Salon A Session 125 **Conference Theater** Mathematics Education Policy and Program Issues Pedagogical Content Knowledge Individual Session Individual Session The Teacher Education and Development Study in Mathematics: Preparing Pre-service Teachers to Help Children Develop Preparation for Teaching in 17 Countries Proportional Reasoning Sharon Louise Senk, Michigan State University Dorothy Ann Assad, Austin Peay State University Maria Teresa Tatto, Michigan State University Jackie Vogel, Austin Peay State University This session provides a description of the design and first findings of The implementation of a methods course, centered on proportional reasoning in grades 4-6, is described. A study of the content and the TEDS-M Study, including the level and depth of the mathematics and related teaching knowledge attained by prospective primary and pedagogy in the sixth grade MathScape curriculum provides a model lower secondary school teachers and opportunities to attain such for teaching and deepens understanding of content. knowledge Session 126 Saddleback Session 122 Salon B Equity and Mathematics Education Pedagogical Content Knowledge Individual Session Individual Session Supporting Pre-service Teachers in Understanding Themselves as Effect of Lesson Implementation, Assessment of Student Work Mathematics Teachers and Reflection on Pre-service Teachers' Understanding of Fractions Jill M. Neumayer DePiper, University of Maryland Ann Edwards, University of Maryland Trena Wilkerson, Baylor University This session engages participants in and reports on an intervention Sandi Cooper, Baylor University Rachelle Meyer, Baylor University designed to support pre-service elementary teachers in thinking critically about their understandings of themselves as mathematics Betty Ruth Baker, Baylor University teachers and their practice. Implications for pre-service teacher In a study on teaching and learning fractions, elementary pre-service education will be discussed teachers worked with kindergarten-third grade students in an urban elementary school. Presenters will share effects on understandings Session 127 Trabuco held by the pre-service teachers, both in terms of mathematical and Mathematics Education Policy and Program Issues pedagogical content knowledge. Individual Session Articulated Learning Trajectories in Middle-Grades Mathematics Session 123 Salon E Textbooks: Implications for Teacher Education Programs and Pedagogical Content Knowledge Coursework Individual Session Travis A. Olson, University of Nevada, Las Vegas Teachers' Descriptions of Worthwhile Mathematical Tasks: Experiences Implementing a Task-based, Reform-oriented Results are reported from a mathematical content analysis of Curriculum articulated learning trajectories related to the development of patterning concepts in four middle-grades textbook series. Time for discussion of Laura Marie Singletary, University of Georgia implications for teacher education programs, and course content and Zandra de Araujo, University of Georgia activities, is provided. Laura Lowe, University of Georgia This session will focus on the findings of a study exploring teachers' experiences implementing a task-based, reform-oriented curriculum. Issues discussed will include challenges and benefits of teaching with tasks for teachers and students, as well as implications for teacher educators Session 124 **Crystal Cove Teacher Professional Development** Individual Session Action Research about Facilitating High Quality Teacher Action Research Ruth M. Heaton, University of Nebraska, Lincoln Wendy M. Smith, University of Nebraska, Lincoln We describe what we have learned and prompt discussion about high quality teacher research and how to help teachers engage in it from our five-year effort to guide over 150 middle level math teachers through teacher research projects.

8:00a - 8:45a

Session 128 Professional Development of Teachers Roundtable Sessions

An Integrated Model of Teacher Change (IMTC) in an Era of Mathematical Reform

Damon Bahr, Brigham Young University Eula Ewing Monroe, Brigham Young University

The IMTC represents a synthesis of teacher change research conducted from disciplinary, psychological, and sociological positions within three domains—beliefs, knowledge, and practice. This model facilitates both the development of outcomes for and the conducting of inquiry into teacher learning.

Building Community in Online Learning Environments

Shea Mosley Culpepper, University of Houston Whitney Grese Hanna, University of Houston Anita Vyas, University of Houston

Informed by sociocultural theory and the research on communities of practice, this presentation highlights how developers of an online masters program for middle school math/science teachers focused on building a community of practice among the participants.

Using Authentic Scholarly Practice in an Online Teacher Professional Development Course

Jodie Novak, University of Northern Colorado Robert Powers, University of Northern Colorado

This session presents the philosophy of the Mathematics Teacher Leadership Center master's program and two authentic performance tasks used for teaching and evaluation purposes during an online teacher professional development course on teaching geometry for secondary teachers.

Session 129 Mathematical Content Knowledge Individual Session

Shady Canyon

Pelican Hill

Supporting the Mathematical Development of Graduate Preservice Elementary Teachers

Rachael M. Welder, *Hunter College, The City University of New York* Joe Champion, *Texas A&M University, Corpus Christi*

This session focuses on the mathematical content preparation of career switchers enrolled in graduate elementary teacher preparation programs. Session participants will engage in discussion arising from results of the presenters' mixed methods study of ten graduate preservice teachers.

Session 130 Equity and Mathematics Education Individual Session Quail Hill

Toward the Development of Critically Conscious Pre-service Elementary Teachers

Karina K. R. Hensberry, *University of Florida* Jonathan David Bostic, *University of Florida*

This session will provide participants with an opportunity to engage in collaborative reflection among teacher educators and discuss the results of two interventions aimed at developing pre-service elementary mathematics teachers who are critically conscious.

Session 131 Teacher Professional Development Individual Session

Mathematics Lesson Planning Practices

Julie Amador, Indiana University

This session will describe the mathematics lesson planning practices of elementary school teachers and will provide an analysis of lesson plan enactment during the teaching process. Implications for educators of pre-service and in-service teachers will be highlighted.

Session 132 Pedagogical Content Knowledge Individual Session **Oak Creek**

Santiago

Pre-service Teachers' Problem Solving Strategies and Math Anxiety in Relation to Contextual Versus Non-contextual Problems

Leslie D. Nisbet, *Florida International University* Roxanne Molina, *Florida International University* Maria L. Fernandez, *Florida International University*

Findings from a research study investigating the use of contextual versus non-contextual problems as a strategy for reducing math anxiety in an elementary math methods course will be presented. Contextual and non-contextual problems, teacher strategies, and perceptions will be shared.

Session 133 Pedagogical Content Knowledge Individual Session

Pre-service Teachers' Explanation of Students' Invented Strategies for Whole Number Subtraction

Ji Won Son, *University of Tennessee* Ellen Burleson Matheny, *University of Tennessee*

This session presents findings of a study investigating pre-service teachers' understanding and explanation of students' invented strategies and the traditional algorithms for whole number subtraction. Implications for teacher education are discussed in accordance with the findings of the study.

Woodbridge

Saturday, January 29, 2011

Crystal Cove Salon A Session 134 Session 137 Mathematics Education Policy and Program Issues **Teacher Professional Development** Symposium Symposium Common Core State Standards (CCSS) and the Preparation of Mathematics Teacher Noticing: Seeing through Teachers' Eves **Teachers of Mathematics** Randolph Philipp, San Diego State University Gladis Kersaint, University of South Florida Miriam Gamoran Sherin, Northwestern University William G. McCallum, University of Arizona Victoria Jacobs, San Diego State University Edward A. Silver, University of Michigan Lynn Goldsmith, Education Development Center Barbara J. Reys, University of Missouri Rossella Santagata, University of California, Irvine Nanette Seago, WestEd This panel discussion addresses implications of the Common Core Elizabeth van Es, University of California, Irvine State Standards, adopted by 35+ states for the preparation of mathematics teachers. A summary of needed work will be highlighted. The editors and several authors of a soon-to-be published edited book Perspectives from the mathematics and mathematics education will lead this interactive symposium addressing the definition, community will be shared. operationalization, recent research, new developments, and professional development implications for the study of mathematics teacher noticing. Session 135 Salon B **Teacher Professional Development** Symposium Session 138 **Conference Theater** AMTE Advocacy Task Force Scaling Practice-based Professional Development: Issues and **Discussion Session Design Considerations** Advocating for Mathematics Teacher Education Programs in a Timothy A. Boerst, University of Michigan Time of Challenge Laurie Sleep, University of Michigan Kara Suzuka, University of Michigan Marilyn E. Strutchens, Auburn University Deborah Loewenberg Ball, University of Michigan Karen S. Karp, University of Louisville Della Cronin, Washington Partners Jon Wray, Howard County Public Schools Beth McCord Kobett, Stevenson University In this session participants will discuss ways that the Association of This symposium uses examples from a materials development project Mathematics Teacher Educators can more effectively advocate on behalf of mathematics teacher educators in discussions related to to consider ways in which the field can increase access to high-quality practice-based professional development while simultaneously teacher education policy. Participants will also learn practical strategies developing the capacity of those who facilitate such professional for sharing their opinions and expertise with elected officials charged learning opportunities. with developing education laws so that the concerns of math teacher educators are considered in any new policies. Session 136 Salon E Mathematical Content Knowledge Session 139 Saddleback Mathematical Content Knowledge Symposium Symposium Understanding the Role of Mathematics in Emerging Practice Clinical Interviews: Window into Pre-service Teachers' Learning through Balance among Mathematics, Sensitivity and about Students' Mathematical Thinking Management Rose Mary Zbiek, The Pennsylvania State University Marta T. Magiera, Marguette University M. Kathleen Heid, The Pennsylvania State University John C. Moyer, Marquette University Leigh A. van den Kieboom, Marquette University Glen Blume, The Pennsylvania State University Participants use and evaluate a research-developed tool to understand In this session we will characterize two types of clinical interviews we how emerging teachers' mathematical content knowledge concurrently use in our practice with pre-service teachers and engage participants in supports and conflicts with the mathematical experiences found in their a discussion of the role of clinical interviews in mathematics teacher classrooms as they strive to balance mathematics with concern for preparation programs. students and management issues.

9:00a - 10:15a

Session 140	
Mathematical Content Knowledge	
Symposium	

Content-focused Methods Courses: Integrating Pedagogy and Mathematical Content that Is Central to the Grade Seven through Twelve Curriculum

Michael David Steele, *Michigan State University* Margaret S. Smith, *University of Pittsburgh* Amy Hillen, *Kennesaw State University*

Supporting secondary teachers in developing the specialized content knowledge needed for teaching can be challenging in typical teacher preparation experiences. In this session, we discuss a model for integrating systematic study of mathematics content into mathematics methods courses.

Session 141 Pedagogical Content Knowledge Symposium

Pelican Hill

Trabuco

Exploration of an Instructional Activity: The Learning of Preservice Teachers, In-service Teachers, and Elementary Students

Allison Hintz, *University of Washington, Bothell* Angela Grace Chan, *University of California, Los Angeles* Megan Kelley-Petersen, *University of Washington*

Participants will explore the affordances of "Instructional Activities" for mathematics teaching and learning from the angle of pre-service teacher, in-service teacher, and elementary student. Artifacts of practice from three research studies will provide the basis for discussion.

Session 142 Development of Mathematics Teacher Educators Symposium

Shady Canyon

Capturing Classroom Practices that Lead to Competence with Complex Algebraic Tasks

Hee-jeong Kim, University of California, Berkeley Jerilynn Lepak, Michigan State University Mariana Levin, University of California, Berkeley Nicole Louie, University of California, Berkeley Daniel Reinholz, University of California, Berkeley Niral Shah, University of California, Berkeley Jamie Lynn Wernet, Michigan State University Robert E. Floden, Michigan State University

In this session we will share the development and initial results of an analytic scheme for observing mathematics classroom instruction. Participants will have the opportunity to use the scheme on a video clip and discuss the results of the observation.

Session 143 Pre-Service Teacher Field Experiences Discussion Session

Meaningfully Integrating Field Experience and Methods

Elizabeth K. Hughes, *University of Northern Iowa* Jihwa Noh, *University of Northern Iowa* Megan Elizabeth Balong, *University of Northern Iowa*

Secondary pre-service teachers find the field experience portion of their methods classes to be valuable while professors find it difficult to integrate within courses. Why is this and what can we do to mediate this tension? Let's talk!

Session 144

Teacher Professional Development Individual Session

Leverage Points in Teacher Knowledge: Examining Relationships between Content Knowledge and Pedagogical Content Knowledge of Practicing Teachers

Shannon W. Dingman, *University of Arkansas* Laura W. Kent, *University of Arkansas* Susan Empson, *University of Texas* Jae M. Baek, *Illinois State University*

We examine relationships between practicing teachers' common content knowledge (CCK) and knowledge of content and students (KCS), and how these forms of teacher knowledge can inform the development of professional development that can foster development of teachers' specialized content knowledge (SCK).

Session 145 Mathematical Content Knowledge Discussion Session

Oak Creek

Establishing Valid Mathematical Justification for Teachers and Students

Matthew Campbell, Oregon State University Kristin Lesseig, Oregon State University Michael Perkowski, University of Missouri Rebekah Elliott, Oregon State University John Lannin, University of Missouri

This discussion session will engage participants in a focused investigation of the role of mathematical justification in teacher and student learning. Using math tasks, video, and productions of teachers' and students' justifications, conversations will be grounded in specific artifacts.

Session 146 Teacher Professional Development Symposium

Santiago

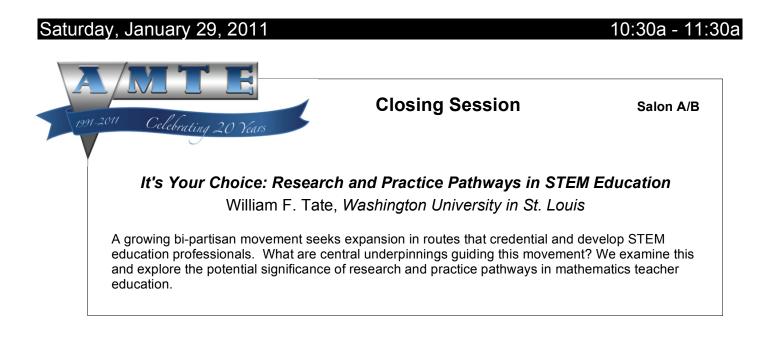
International Teaching Experiences Informing and Shaping our Practices in Teacher Education

Susan Hillman, Saginaw Valley State University Stuart Moskowitz, Humboldt University Robert Stein, California State University, San Bernardino Sybilla Beckmann, University of Georgia

Experiences working with mathematics teachers in schools around the world provide a global perspective to mathematics teacher education. Discussion will address ways these experiences inform and shape our teaching practices in preparing future teachers and teacher leaders.

Quail Hill

Woodbridge



Saturday, January 29, 2011



11:45a - 1:30p

AMTE EVENTS AT THE 2011 NCTM AND NCSM ANNUAL CONFERENCES IN INDIANAPOLIS, INDIANA

AMTE Special Interest Session at the NCSM Conference Wednesday afternoon, April 13, 2011 2:45 – 4:15 pm Location TBA AMTE Reception at the NCTM Conference Thursday, April 14, 2011 6:00 - 7:30 pm Marriott Ballroom 3 & 4 Indianapolis Marriott Hotel Downtown

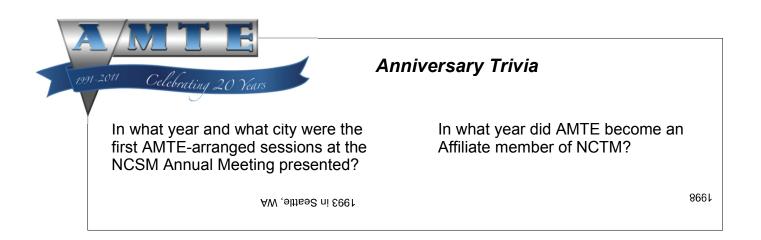
All members and interested persons are invited to attend.

For more detailed information, please see <u>www.amte.net</u>.

AMTE'S 2012 ANNUAL CONFERENCE

We invite you to plan to attend and speak at next year's Sixteenth Annual AMTE Conference, which will be held on February 9 - 11, 2012, in Fort Worth, Texas. The *Call for Proposals* will be available on the AMTE website (<u>www.amte.net</u>) by March 4, 2011 and in the next issue of *AMTE Connections*. Keith Leatham of Brigham Young University (kleatham@mathed.byu.edu) will be the Program Chair. **The deadline for submitting proposals is May 13, 2011**.

The 2013 Conference will be held somewhere in the southeastern part of the United States. Stay tuned for more information!





HISTORY OF THE JUDITH E. JACOBS LECTURE

The Judith E. Jacobs Lecture was established in 2003 to honor Dr. Judith E. Jacobs, one of the founding members of AMTE. Dr. Jacobs was instrumental in developing AMTE into a national organization and in the development of the AMTE conference with its current structure and emphasis on interaction. Judith Jacobs is an active member who served as the treasurer, the president, and as the first executive director. The Judith Jacobs Lecture was established after Dr. Jacobs completed her tenure as AMTE Executive Director.

Dr. Jacobs gave the first lecture where she described what it means to be a mathematics teacher educator and outlined how being a mathematics teacher educator is different from being a mathematics teacher, a career professional developer, or a researcher in mathematics education research. She challenged us to recognize our roles as mathematics teacher educators and through this organization, an outlet was created to share and learn from each other.

Year	Judith E. Jacobs Lecturer	Affiliation	Title of Talk
2011	Joan Ferrini-Mundy	Michigan State University	Learning for Tomorrow: Challenges and Opportunities in Mathematics Teacher Education
2010	James Hiebert	University of Delaware	Building Knowledge for Helping Teachers Learn to Teach: An Alternative Path for Teacher Education
2009	Jeremy Kilpatrick	University of Georgia	Going to War with the Army You Have
2008	Ed Silver	University of Michigan	Mathematics Teacher Education in Dodge City: Desperately Seeking Wyatt Earp and Henry Poincare
2007	Deborah Loewenberg Ball	University of Michigan	The Core and Contemporary Challenges of Mathematics Teacher Education
2006	Judith Sowder	San Diego State University	Preparing Elementary Teachers: The Role of Reasoning about Numbers and Quantities
2005	Glenda Lappan	Michigan State University	Reflections on a Lifetime of Work: Why Curriculum Matters
2004	Thomas J. Cooney	University of Georgia	The Role of Mathematics Teacher Education: Reform or Enculturation?
2003	Judith E. Jacobs	California State Polytechnic University - Pomona	Improving Mathematics Education: Mathematics Teacher Educators Lead the Way

Judith E. Jacobs Lecturers



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Affiliation

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Illinois State University Brigham Young University Baylor University George Mason University University of Michigan University of Northern Iowa Illinois State University University of Mississippi University of Delaware University of Michigan University of Louisville University of Michigan San Jose State University University of Georgia Edgewood College, Madison California State University, Long Beach California State University, Chico University of Virginia Michigan State University Utah State University The Pennsylvania State University University of Michigan California State University, Fresno West Virginia University University of Texas, San Antonio Texas State University University of Florida Duquesne University Boise State University Bucknell University National Council of Supervisors of Mathematics Education Development Center The Ohio State University Knowles Science Teaching Foundation Western Michigan University Alpine Testing Solutions Northern Kentucky University Boston University Montana State University University of South Carolina University of Louisville University of Louisville

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Farinelli, Robert Feldman. Ziv Fennell, Francis (Skip) Fernandez, Maria L. Fischman, Davida Fisher, Brian Floden, Robert E. Flores, Alfinio

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Lai, Yvonne Lamb, Lisa Lampert, Magdalene Land, Tonia Lannin, John Leatham, Keith Rigby Lee, Hollylynne Lee, Carl Lemon, Travis Lenges, Anita Kristine Lepak, Jerilynn Lesseig, Kristin Levin, Mariana Lewis, Catherine Lewis, Jennifer Lewis, Jim Mindy Lewis Lloyd, Gwendolyn Louie, Nicole Lovin, LouAnn Lowe, Laura Lynch, Monique C. Lynch, Sararose Lynch-Davis, Kathleen

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Arizona State University
The University of New Mexico
Middle Tennessee State University
Stevenson University
University of Wisconsin, La Crosse
Syracuse University
University of Michigan

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University of Michigan
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CHAIR (2010): Rheta Rubenstein, University of Michigan-Dearborn, MI; <u>rrubenst@umd.umich.edu</u> Judy Mumme, WestEd, MT; <u>jmumme@wested.org</u> Marilyn Strutchens, Auburn University, AL; strutme@auburn.edu (AMTE Board)

2011-14 (Begin term Jan. 30, 2011)

Tim Jacobbe, University of Florida, FL; jacobbe@coe.ufl.edu Maggie Niess, Oregon State University, OR; niessm@onid.orst.edu

Research on Mathematics Teacher Education Advisory Committee (RMTEAC)

2009-2011 (Complete term Jan. 29, 2011)

CHAIR (2010): Peg Smith, University of Pittsburgh, Pittsburgh, PA; <u>pegs+@pitt.edu</u> Paola Szatjn, North Carolina State University, NC; <u>paola sztajn@ncsu.edu</u>

2009-2012

Elizabeth Hughes, University of Northern Iowa, IA; <u>elizabeth.hughes@uni.edu</u> Megan Franke, UCLA, CA; <u>mfranke@ucla.edu</u> (2 yr.)

2010-2013

CHAIR (2011): Corey Drake, Iowa State University, IA; cdrake@iastate.edu

Rick Kitchen, University of New Mexico, NM; <u>kitchen@unm.edu</u> Amy Roth-McDuffie, Washington State University, WA; <u>mcduffie@tricity.wsu.edu</u> (AMTE Board)

2011-14 (Begin term Jan. 30, 2011)

Laura Van Zoest, Western Michigan University, MI; <u>laura.vanzoest@wmich.edu</u> Gary Martin, Auburn University, AL; <u>martiwg@auburn.edu</u>

Technology and Mathematics Teacher Education Committee

2009-2011 (Complete term Jan. 29, 2011)

Bob Ronau, University of Louisville, KY; <u>bob@louisville.edu</u> Susann Mathews, Wright State University, OH; <u>susann.mathews@wright.edu</u> Gladis Kersaint, University of South Florida; <u>kersaint@coedu.usf.edu</u> (AMTE Board)

2009-2012

CHAIR (2010): Enrique Galindo, Indiana University, IN; <u>egalindo@indiana.edu</u> CHAIR (2011): Jeff Shih, University of Nevada-Las Vegas, LV; <u>jshih@unlv.nevada.edu</u>

2010-2013

Tom Dick, Oregon State University, OR; <u>tpdick@math.oregonstate.edu</u> Karen Flanagan Hollebrands, North Carolina State University, NC; <u>karen_hollebrands@ncsu.edu</u>

2011-14 (Begin term Jan. 30, 2011)

Dustin Jones, Sam Houston State University, TX; <u>dljones@shsu.edu</u> Margaret Mohr-Schroeder, University of Kentucky, KY; m.mohr@uky.edu

TASK FORCES

Advocacy Task Force

Established 4-20-10, target completion date: Fall 2010

CHAIR: Skip Fennell, McDaniel College, MD; <u>ffennell@mcdaniel.edu</u> Nadine Bezuk, San Diego State University, CA; <u>nbezuk@mail.sdsu.edu</u> Susan Gay, University of Kansas, KS; <u>sgay@ku.edu</u> Karen Karp, University of Louisville, KY; <u>karen@louisville.edu</u> Sid Rachlin, East Carolina State University, NC; <u>rachlins@ecu.edu</u> Jenny Bay-Williams, University of Louisville, KY; <u>j.baywilliams@louisville.edu</u> Marilyn Strutchens, Auburn University, AL (Board Liaison); <u>strutme@auburn.edu</u>

AMTE-NCTM Joint Task Force on MTE Journal

Established May 2010, target completion date: Fall 2011

AMTE representatives:

CHAIR: Alfinio Flores, University of Delaware, DE; <u>alfinio@math.udel.edu</u> Rheta Rubenstein, University of Michigan-Dearborn, MI; <u>rrubenst@umd.umich.edu</u> John Lannin, University of Missouri, MO; <u>LanninJ@missouri.edu</u>

NCTM representatives:

Hank Kepner, University of Milwaukee, WI; <u>hkepner@nctm.org</u> Diana Lambdin, Indiana University, IN; <u>lambdin@indiana.edu</u> Judy Sowder, San Diego State University, CA; <u>jsowder@sciences.sdsu.edu</u>

SPECIAL PROJECT TEAM

TE-MAT Review

CHAIR: David Pugalee, University of North Carolina-Charlotte, NC; <u>david.pugalee@uncc.edu</u> M. Lynn Breyfogle, Bucknell University, PA; <u>mbreyfog@bucknell.edu</u> (AMTE Board) Field Testers (Charged with testing the feasibility of the design)

ANNUAL CONFERENCE COMMITTEE

Conference Director: Susan Gay, University of Kansas; sgay@ku.edu

Assistant Conference Director: Carol Lucas, University of Central Oklahoma, clucas@uco.edu

2011 Annual Conference – Program Committee

CHAIR: Michelle Chamberlin, University of Wyoming, WY; <u>mchambe5@uwyo.edu</u> ASSISTANT CHAIR: Keith Leatham, Brigham Young University, UT; Damon Bahr (UT) BYU, UT, <u>damon_bahr@byu.edu</u> Suzanne Harper, Miami University, OH; <u>harpersr@muohio.edu</u> Jennifer Tobias, Illinois State University, IL; <u>jtobias@ilstu.edu</u> Gina Post, Wittenberg University, OH; <u>rpost@wittenberg.edu</u> Julie Gainsburg, California State University –Northridge, CA; <u>julie.gainsburg@csun.edu</u> Crystal Walcott, Indiana Univ. Purdue University Columbus, IN; <u>walcottc@iupuc.edu</u> Margaret Ford, Duquesne University, PA; <u>ford@duq.edu</u> Tracey Goodson-Espy, Appalachian State University, NC; <u>goodsonespyt@appstate.edu</u> Sylvia Taube, Sam Houston State University, TX; <u>taube@shsu.edu</u> Jennifer Chauvot, University of Houston, TX; <u>jchauvot@uh.edu</u> (2010 Program Chair) Susan Gay, University of Kansas; <u>sgay@ku.edu</u> (AMTE Board)

2011 Annual Conference – Local Arrangements Committee

Co-Chairs: Mark Ellis, mellis@exchange.fullerton.edu and Sandi Alaux, salaux@fullerton.edu **Tech Support**: Tony Nguyen, AMTE Webmaster Carol Brouhle, Cal State Fullerton and Orange County Math Council Carol Webster, Cal State Fullerton and Orange County Math Council Tor Ormseth, Cal State Fullerton and El Rancho USD Walt Hamera Cal State Fullerton Huy Chung, University of California, Irvine Rahila Munshi, University of California, Irvine Cathery Yeh, University of California, Irvine Scott McDonald, University of Nevada, Las Vegas Diane Kinch, Pomona USD Stacey and Sean Williams, Bellflower USD Lisa Staats, Los Angeles USD and California Math Council-Southern Section Shelton Ford, Fayetteville State University Dave Chamberlain, Capistrano Unified School District Brian Hightower, Orange County Department of Education Lisa Staats, Los Angeles County Office of Education Stacey Williams, Bellflower Unified School District (BUSD) Sean Monroe, Bellflower Unified School District (BUSD)

2012 Annual Conference – Program Committee

CHAIR: Keith Leatham, Brigham Young University, UT; <u>kleatham@mathed.byu.edu</u> ASSISTANT CHAIR: Suzanne Harper, Miami University of Ohio, OH; <u>harpersr@muohio.edu</u> Amy Brown, Utah State University; <u>amy.brown@usu.edu</u> Tonia Land, Iowa State University, IA; <u>tjland@iastate.edu</u> Shannon Driskell, University of Dayton, OH; <u>shannon.driskell@notes.udayton.edu</u> Kelly Costner, Winthrop University, SC: <u>costnerk@winthrop.edu</u> Janet Frost, Washington State University, WA; <u>frost@wsu.edu</u> Wendy Sanchez, Kennesaw State University, GA; <u>wsanchez@kennesaw.edu</u> Ksenija Simie-Muller, Pacific Lutheran University, WA: <u>ksimicmuller@plu.edu</u> Shari Stockero, Michigan Technical University, MI; <u>stockero@mtu.edu</u> Dawn Teuscher; Arizona State University, AZ; <u>dawn.teuscher@asu.edu</u> Michelle Chamberlin, University of Wyoming, WY; <u>mchambe5@uwyo.edu</u> (2011 Program Chair) Susan Gay, University of Kansas; <u>sgay@ku.edu</u> (AMTE Board)

2012 Annual Conference – Local Arrangements Committee

CHAIR: TBD

2013 Annual Conference – Program Committee

CHAIR: Suzanne Harper, Miami University of Ohio, OH; <u>harpersr@muohio.edu</u> ASSISTANT CHAIR: TBD Keith Leatham, Brigham Young University, UT; <u>kleatham@mathed.byu.edu</u> (2012 Program Chair) Susan Gay, University of Kansas; <u>sgay@ku.edu</u> (AMTE Board)

Conference Leadership Team

Conference Director: Susan Gay, University of Kansas; <u>sgay@ku.edu</u> Assistant Conference Director: Carol Lucas, University of Central Oklahoma, <u>clucas@uco.edu</u> 2011 Program Chair: Michelle Chamberlin, University of Wyoming, WY; <u>mchambe5@uwyo.edu</u> 2012 Program Chair: Keith Leatham, Brigham Young University, UT; <u>kleatham@mathed.byu.edu</u> 2013 Program Chair: Suzanne Harper, Miami University of Ohio, OH; <u>harpersr@muohio.edu</u> Executive Director: Nadine Bezuk, San Diego State University; <u>nbezuk@mail.sdsu.edu</u>

Proposal Reviewers

Raoul Amstelveen, Johnson & Wales University Damon Bahr, Brigham Young University Brenan Bardige, New York University Stephen Bartos, Illinois Institute of Technology Babette Benken, California State University, Long Beach Robert Berry, University of Virginia Kristen Bieda, Michigan State University Amy Bingham Brown, Utah State University Johnna Bolyard, West Virginia University Emily Bonner, University of Texas at San Antonio Rhonda Bonnstetter, Southwest MN State University Beth Bos, Texas State University Jonathan Bostic, University of Florida Melissa Boston, Duquesne University Michelle Bower, Landmark College M. Lynn Breyfogle, Bucknell University Elizabeth Brown, University of Louisville Sue Brown, University of Houston-Clear Lake Barbara Burns, Canisius College Megan Burton, University of South Carolina Jo Cady, University of Tennessee Alison Castro Superfine, University of Illinois at Chicago Scott Chamberlin, University of Wyoming Michelle Chamberlin, University of Wyoming Suzanne Chapin, Boston University Jennifer Chauvot, University of Houston Matthew Chedister, Boston University Joshua Chesler, California State University, Long Beach

Kathryn Chval, University of Missouri Kathleen Clark, Florida State University Georgia Cobbs, The University of Montana Melissa Colonis, Lafayette School Corporation Lynn Columba, Lehigh University Larry Copes, Institute for Studies in Educational Mathematics Yasemin Copur, PhD Candidate Douglas Corey, Brigham Young University Dana Cox, Miami University Craig Cullen, Illinois State University Margarita Cummings, University of Utah/Jordan School District Zandra de Araujo, University of Georgia Chrystal Dean, Appalachian State University Corey Drake, Iowa State University Shannon Driskell, University of Dayton Anne DuChene, University of Missouri Kelly Edenfield, Kennesaw State University Michael Edwards, Miami University Thomas Edwards, Wayne State University Rebekah Elliott, Oregon State University James Epperson, The University of Texas at Arlington Diana Erchick, The Ohio State University at Newark Brian Evans, Pace University Jennifer Fillingim, University of Mississippi Mary Foote, Queens College - CUNY Margaret Ford, Duquesne University Janet Frost, Washington State University Julie Gainsburg, California State University, Northridge

Enrique Galindo, Indiana University Gina Garza-Kling, Western Michigan University Christina Gawlik, Texas Woman's University Ricki Geller, Purdue University Tena Golding, Southeastern Louisiana University Terry Goodman, University of Central Missouri Tracy Goodson-Espy, Appalachian State University Christy Graybeal, Hood College Duane Graysay, Penn State University Jeanine Haistings, William Jewell College Allyson Hallman, University of Georgia Suzanne Harper, Miami University Rachel Harrington, Western Oregon University Karina Hensberry, University of Florida Crystal Hill, Indiana University-Purdue University Indianapolis Amy Hillen, Kennesaw State University Elizabeth Hughes, University of Northern Iowa Jessica Hunt, University of Central Florida Lynne Ipina, University of Wyoming Sarah Ives, Texas A&M University, Corpus Christi Julie James, University of Mississippi Christopher Johnston Dustin Jones, Sam Houston State University Jenny Jorgensen, Harrison Middle School April Judd, Northern Arizona University Hyunyi Jung, Indiana University Bloomington Shiv Karunakaran, The Pennsylvania State University Elham Kazemi, University of Washington Virginia Keen, University of Dayton Jane Keleher, York College, City University of New York Jacob Klerlein, Middle TN State University Joanne LaFramenta, University of Florida Carl Lager, University of California, Santa Barbara Paula Lahann, Indiana University Tonia Land, Iowa State University John Lannin, University of Missouri Martha "Marty" Larkin, Southern Utah University Marshall Lassak, Eastern Illinois University Christine Latulippe, Cal Poly Pomona Keith Leatham, Brigham Young University Jean Lee, Indiana University Anita Lenges, The Evergreen State College Xuhui Li, California State University-Long Beach Cathy Liebars, The College of New Jersey Gwendolyn Lloyd, Penn State University Kevin LoPresto, Radford University LouAnn Lovin, James Madison University Monique Lynch, National Council of Teachers of Mathematics Marta Magiera, Marquette University Lorraine Males, Michigan State University Azita Manouchehri, The Ohio State University Hope Marchionda, Western Kentucky University Susann Mathews, Wright State University Kelly McCormick, University of Southern Maine Ann McCoy, University of Central Missouri Kevin McLeod, University of Wisconsin-Milwaukee Sherry Meier, Illinois State Unversity Gayle Millsaps, Purdue University-Calumet Rebecca Mitchell, Boston College Roxanne Molina, Florida International University

Kyunghee Moon, University of California, Santa Barbara Shelby Morge, University of North Carolina Wilmington Eileen Murray, University of Georgia Nirmala Naresh, Miami University Jill Newton, Purdue University Dicky Ng, Utah State University Giang-Nguyen Nguyen, Florida State University Patricia Nugent, Bradley University Julie Nurnberger-Haag, Michigan State University Dana Olanoff, Syracuse University S. Asli Ozgun-Koca, Wayne State University Stephen Pape, University of Florida Nikita Patterson, Kennesaw State University Barba Patton, University of Houston-Victoria Duane Peck, Boise State University Lauren Persky, University of Washington Christine Phelps, Central Michigan University Kathleen Pitvorec, University of Illinois Drew Polly, UNC Charlotte Gina Post, Wittenberg University Margaret Rathouz, University of Michigan-Dearborn Robert Ronau, University of Louisville George Roy, University of South Florida St. Petersburg Farshid Safi, The College of New Jersey Kyle Schultz, James Madison University Ruthmae Sears, University of Missouri Kimberly Seashore, University of California, Berkeley Sarah Selmer, West Virginia University Valerie Sharon, Sam Houston State University Meghan Shaughnessy, University of Michigan Milan Sherman, University of Pittsburgh Ksenija Simic-Muller, Pacific Lutheran University Ajay Singh, University of Oregon Wendy Smith, University of Nebraska-Lincoln Stephanie Smith, Georgia State University Ryan Smith, North Carolina State University Marvin Smith, Kennesaw State University Michael Steele, Michigan State University Jeremy Strayer, Indiana State University Gabriel Stylianides, University of Pittsburgh Shannon Sweeny, Michigan State University Sylvia Taube, Sam Houston State University Rukiye Taylan, University of Missouri Megan Taylor, Harvard University Graduate School of Education Cynthia Taylor, University of Missouri Dawn Teuscher, Arizona State University Amanda Thomas, University of Missouri-Columbia Jennifer Tobias, Illinois State University Juliana Utley, Oklahoma State University Laura Van Zoest, Western Michigan University Eugenia Vomvoridi-Ivanovic, University of South Florida Anita Wager, University of Wisconsin-Madison Crystal Walcott, Indiana University Purdue University Columbus Jane Wilburne, Penn State Harrisburg Peter Wiles, Eastern Illinois University Trena Wilkerson, Baylor University P. Holt Wilson, University of North Carolina - Greensboro Greisy Winicki Landman, Dept of Mathematics, Cal Poly Pomona Jeremy Zelkowski, The University of Alabama

PUBLICATIONS

Publications Director: Alfinio Flores

AMTE Monograph Series

Series Editor (2008-2011): Marilyn Strutchens, Auburn University, AL; strutme@auburn.edu

Seventh Monograph

Co-Editor: Johnny Lott, University of Mississippi, University, MS; <u>ilott@olemiss.edu</u> Co-Editor: Jennifer Luebeck, University of Montana, Bozeman, MT; <u>luebeck@math.montana.edu</u> Jane Keiser, Miami University of Ohio, OH; <u>keiserjm@muohio.edu</u> Carol Malloy, University of North Carolina, NC; <u>cmalloy@email.unc.edu</u> Eric Milou, Rowan University, NJ; <u>milou@rowan.edu</u> Melfried Olson, University of Hawaii, HI; <u>melfried@hawaii.edu</u> Laura Spielman, Radford University, VA; <u>lspielman@radford.edu</u> Sheri Stockero, Michigan Technological University, MI; <u>stockero@mtu.edu</u> Amy Hillen, Kennesaw State University, GA; <u>ahillen@kennesaw.edu</u> Dorothy White, University of Georgia, GA; <u>dywhite@uga.edu</u> Trena Wilkerson, Baylor University, TX; <u>Trena_Wilkerson@baylor.edu</u> Marilyn Strutchens, Auburn University, AL; <u>strutme@auburn.edu</u> (AMTE Board)

AMTE Special Issue of JMTE

Editor: Marilyn Strutchens, Auburn University, AL; STRUTME@auburn.edu

Editorial Board:

Jenny Bay-Williams, University of Louisville, KY; j.baywilliams@louisville.edu Robert Q. Berry III, University of Virginia, VA; <u>robertqberry@gmail.com</u> Kathryn Chval, University of Missouri, MO; <u>chvalkb@missouri.edu</u> Marta Civil, University of Arizona and CEMELA, AZ; <u>civil@math.arizona.edu</u> Beatriz D'Ambrosio, Miami University, OH; <u>dambrobs@muohio.edu</u> Carol E. Malloy, University of North Carolina, Chapel Hill, NC; <u>cmalloy@email.unc.edu</u> Dorothy White, University of Georgia, GA; <u>dywhite@uga.edu</u>

Newsletter

EDITOR: Trena Wilkerson, Baylor University, mailto:trena wilkerson@baylor.edu (Sept. 2010-Jan 2013)

Editorial Panel:

2009-2011 (Complete term Jan. 29, 2011)

Sarah Kasten, University of Northern Kentucky, KY; <u>kastens1@msu.edu</u> Bob Reys, University of Missouri, MO; <u>reysr@missouri.edu</u>

2009-2012

Karen Karp, University of Louisville, KY; <u>karen@louisville.edu</u> Bob Mayes, University of Wyoming, WY; <u>rmayes2@uwyo.edu</u>

2010-2013

David Barnes, NCTM, VA; <u>dbarnes@nctm.org</u> Beth Burroughs, Montana State University, MT; <u>burrough@math.montana.edu</u>

2011-14 (Begin term Jan. 30, 2011)

Lorraine Gregory, Lake Superior State University, MI, <u>lgregory@lssu.edu</u> Babette Benken, California State University-Long Beach, CA; <u>bbenken@csulb.edu</u>

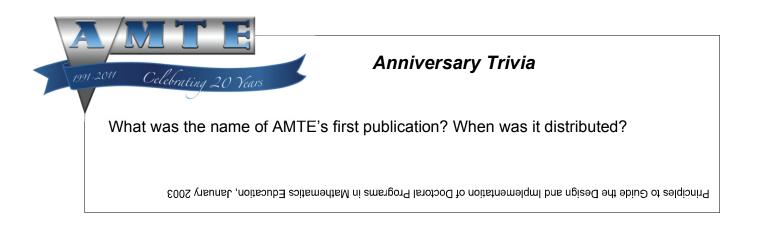
CITE Journal Editors (2008-2011)

Term: (current to 2012)

CO-EDITOR: Christine Browning, Western Michigan University, MI; <u>christine.browning@wmich.edu</u> Term: (current to 2014)

CO-EDITOR: Denny St. John, Central Michigan University, MI; <u>stjoh1d@cmich.edu</u> Gladis Kersaint, University of South Florida; <u>kersaint@coedu.usf.edu</u> (AMTE Board)

CITE Reviewers (see website for list of volunteers)





MINUTES AMTE 2010 Business Meeting

Saturday, January 30, 2010 Hyatt Hotel, Irvine, CA

Barbara Reys, President, called the meeting to order at 12:18 pm.

Welcome, Review of 2009 Strategic Priorities

Barbara welcomed the members and outlined the 2009 Board priorities: a) Redesign AMTE website, b) Investigate establishing MTE journal, c) Launch EMS initiative, d) Develop Policies and Procedures Manual

Approval of the Minutes

Lynn Breyfogle, Secretary, asked for amendments. Fran Arbaugh moved to approve the Minutes as written. Kate Riley seconded. Unanimously approved.

Treasurer & Membership Report

Gary Martin, Treasurer, provided the mid-year financial report. There was a small return from last year's conference. He noted that the majority of income is from membership dues and the Annual Conference. The organization currently has approximately \$85,000 in reserves, which is appropriate for a non-profit (keeping at least ½ of annual expenses in reserve). He reminded the membership not to think of reserves as something we can spend because we need to keep it in order to survive a major unintended event (e.g., poor weather impacting conference attendance).

Nadine Bezuk, Executive Director, reported that membership has grown over the past three years. In 2007 there were 610 members, in 2008 there were 877, and in 2009 there were 1017 members. Barbara encouraged the Membership Committee to consider the goal of 2,000 members by the organization's 20th Anniversary in 2011.

Committee and Task Force Reports

Committees:

Affiliates Connections

Jane Wilburne, Chair, thanked the committee members for their work this year. She reported that the primary goal this year was to provide guidance to the Website Revision Task Force related to the affiliate page. She reported that the Affiliate Committee had a productive affiliate session at the conference with many excellent new suggestions. Barbara officially thanked Jane as Chair with a plaque. Angela Barlow will be taking over as Chair. Barbara also recognized the new Charter Membership from the Association of Mathematics Teacher Educators of Alabama (AMTEA). Gary Martin accepted the plaque on behalf of AMTEA.

Awards

Kate Riley, Chair, reported that the committee started reviewing materials in September to select the Outstanding Mathematics Teacher Educator Award (OMTEA) for Excellence in Service and the Early Career Award (ECA). Kate encouraged members to consider submitting nominations for the 2011 Award and reminded them of the deadlines (September 30th for OMTEA and October 15th for ECA). Information regarding the awards is found on pages 71-73 of conference program. Kate was honored with a plaque for her service as Chair.

Constitution and Bylaws

Bill Speer, incoming Chair, thanked E. Todd Brown, Sue McMillan, and Bonnie Oppenheimer for their service this past year. He noted no changes to the Constitution or Bylaws at this time.

Membership

Incoming Chair, Larry Campbell, reported on behalf of Barbara Dougherty. He reminded the members that the charge of the committee is to reach out to existing members and future members. He suggested that members could help by filling out the on-line membership survey, due Feb. 15th. He pointed out a pink handout in the Conference folders asking members to help staff the AMTE booth at the NCTM Annual Conference. A drawing was held for members who had submitted names for referral for membership. AMTE flashdrives were awarded to winners: Christine Thomas; Jane Wilburne (who deferred because she already had one); Mary Sullivan; Vivienne Faurot.

Mentoring

Mary Enderson, Chair, announced that one of the goals of the Mentoring Committee goal is to be more visible at the conference. She reported that they had a good social last night event for new mathematics teacher educators and a productive mentoring session at the conference. Mary also reported that the Committee is in the process of developing a Mentoring guidebook. She encouraged members to provide suggestions for other things they can do for first time conference attendees and graduate students and early career faculty.

Nominations and Elections

Skip Fennell, Chair, announced that Rheta Rubenstein is the incoming Chair. Skip reminded the membership that in 2011 the organization will be looking for a Secretary and Membership-at-Large position on the Board of Directors. He announced that the newly elected officers for this next year are Amy Roth McDuffie (Member-at-Large), Lynn Stallings (Treasurer), and Marilyn Strutchens (President-Elect). Skip was presented a plaque for his service as chair.

2010 Conference Program

Jennifer Chauvot, Chair, thanked the committee, Susan Gay, Nadine Bezuk, and reviewers for all the work they did in preparation for this year's conference. Jennifer noted that the biggest accomplishment was to use the new on-line system (AllAcademic) for proposal review. Barbara acknowledged that Jennifer devoted a great deal of time to learning the program and thanked her for her work. Michelle Chamberlain will be the Chair for next year's conference. The Local Arrangements Chair, Mark Ellis, thanked the membership and presenters for their cooperation and wonderful sessions. Both Jennifer and Mark were thanked with a plaque for their service.

Research

Peg Smith, incoming Chair, provided the report. Peg reported that this is the newest AMTE Standing Committee. Peg announced that their first research commentary will appear in the next *Connections* Newsletter. She reported that the Committee has brainstormed a number of interesting items to inform the membership about relevant research. They plan to have a develop a research section on the new website that will include a variety of resources and information related to research on mathematics teacher education.

Technology (and NTLI Award)

Bob Ronau, Chair, announced that Enrique Galindo is the incoming chair. Bob reported that the Pre-session sponsored by the Technology Committee went well and they had several breakout sessions trying out new technology. If members have other ideas, send them to Enrique. The NTLI Winners for 2010 are Todd Grundmeier and Carole Simard for Session 142: *The van Hiele levels of prospective secondary mathematics teachers.* Bob was thanked for his service as Chair with a plaque.

Task Forces:

Equity

Edd Taylor, co-Chair, reported that the Task Force worked this last year to think about ways to support our membership in sharing their work and providing professional development around the issues of equity. Edd thanked the Board for putting the Task Force together. He reported that the Task Force has completed its work with a final report to the Board. Barbara thanked Edd with a plaque and announced that the Board will think carefully about the report over the next few months and will act on the recommendations.

Elementary Mathematics Specialists

Barbara Reys, Chair, announced that this particular Task Force has finished the original charge, which was to develop and disseminate standards for EMS professionals (a copy of the final document was provided to members

at the conference sponsored by the Brookhill Foundation). Barbara reminded the membership that this was one of the Board's priorities for 2009.

AMTE Journal

Barbara gave the report on behalf of Alfinio Flores, Chair of the Task Force. Barbara was pleased to announce the Board has decided to launch a new practitioner education journal. She announced that the Call for Journal Editor will come out soon.

Website Redesign

Gary Martin, Chair, noted that the Task Force has worked hard but the true heroes are Mike Klass (long time Webmaster) and Tony Nguyen (new Webmaster), who did all of the technical work. Barbara reported that in the last 36 hours there were 320 users and 2500 unique page views of the new website that included computers from India, France, Argentina, Chile, Russia, Ethiopia. Phase I is done and Phase II, which should be running by the NCTM Conference, will include a new system for keeping membership information (to replace MemberClicks) and will result in a substantial cost savings for AMTE.

Publications

Monographs

Marilyn Strutchens reported that everyone should have received a copy of Monograph 6 with their registration materials. Marilyn thanked co-editors, Hollylynne Stohl Lee and Denise Mewborn, and the editorial panel for their hard work. She also thanked those that submitted manuscripts and published in the monograph. Marilyn announced that the co-editors for Monograph 7, Jenny Leubeck and Johnny Lott, and panel members have been working hard. Marilyn reminded the membership about the special issue of JMTE on Equity organized by AMTE and pointed out the Call on page 68 of the program.

Connections Newsletter

Barbara announced on behalf of *Connections* editor, Libby Knott, that the number of issues grew this year from 3 to 4 (published every 3 months). The editorial panel is considering transitioning from a pdf format for the Newsletter to a more interactive, web-based format.

CITE Journal

Christine Browning, co-Editor of CITE, reminded members that the CITE Journal publishes professional practice articles on innovative approaches to integrating technology into mathematics teacher education. She encouraged members to check out pp. 74 and 75 of the conference program for further details on paper submissions, how to become a reviewer, and how to provide a reaction to a published CITE-Math paper.

TE-MAT

David Pugalee, Chair, described that this database was developed to support professional development providers in mathematics and science. He explained that the database can searched by grade level, author, title, type of course. David distributed a flyer about TE-MAT with sample of a review. He encouraged people to visit the TE-MAT website in the next year and alert David if materials members are using are not a part of the collection.

Conferences

Susan Gay, Conference Director, announced that there is a Conference Feedback Survey on line and you should receive an e-mail to prompt you for feedback. Susan reminded the membership that the 2007 AMTE Conference was in Irvine and with that in mind to let us know how things went this year. As of yet, there is no contract signed for the Conference in 2011. In terms of location in the US, we are in alignment with NCTM and MAA and we are trying to get off the rotation next year. Look for the announcement later this month. 2012 will be in Ft. Worth, TX at the Renaissance Hotel.

Recognitions

Barbara asked for a round of applause for the 125 members who are directly involved with the work of AMTE. She also reminded members that there is plenty of work for others to do and encouraged people to volunteer. Barbara thanked the three outgoing Board Members: Jenny Bay-Williams (Past President), Fran Arbaugh (Member At Large), and Gary Martin (Treasurer) with a plaque for their service to the organization.

Installation of new Board Members

Nadine and Barbara called the newly elected Board Members up to the front to be acknowledged and given their official name badges. This included: Marilyn Strutchens (President Elect), Lynn Stallings (Treasurer), and Amy Roth McDuffie (Member-at-Large).

2010 Strategic Priorities

Barbara recapped the success of the Board for addressing the Priorities set for the 2009 year and presented the 2010 Strategic Priorities: 1) Launch the AMTE Journal; 2) Develop and act on advocacy plan for mathematics teacher education; 3) Continue the EMS Initiative; 4) Plan celebration of 20th Anniversary of AMTE

New Business:

Membership Dues

Barbara presented a motion from the Board: *The AMTE Board recommends increasing dues to \$80/year (regular members) effective July 1, 2010.* Barbara outlined the rationale - AMTE has had an increase in initiatives and outreach, increased national presence of AMTE and accompanying demands, new website, enhanced features to come; development and launch of new AMTE journal. Maggie McGatha seconded the motion. After asking for comment or questions and receiving none, a "call for the question" was made by Bob Ronau. The motion was unanimously approved by a vote of the membership present.

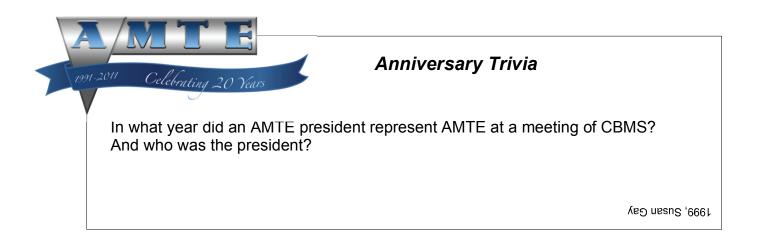
Announcements

Barbara announced there will be another AMTE Reception at the NCTM Conference Thursday, April 22, 2010 from 6:00 - 7:30 pm in the Torrey Room of the San Diego Marriott Hotel and Marina. Barbara also thanked John Wilkins (California State University-Dominguez Hills) for acting as our professional photographer during the conference.

Adjournment

Bob Ronau made a motion to adjourn the meeting, Lynn Stallings seconded. Barbara adjourned the meeting at 1:15.

Respectfully submitted by Lynn Breyfogle.





AMTE'S AWARDS: THE EXCELLENCE IN MATHEMATICS TEACHER EDUCATION AWARD AND THE EARLY CAREER AWARD

Description of Awards

The Board of Directors of the Association of Mathematics Teacher Educators has established two awards to be given annually to two mathematics teacher educators of national recognition at the Annual Meeting of the AMTE. The purpose of these awards is to recognize excellence in each area of mathematics teacher education (teaching, service, research). The purpose of the first award, the **Excellence Award**, rotates every three years, focusing on a different area: **Excellence in Teaching; Excellence in Service;** and **Excellence in Scholarship.** The second award, the **Early Career Award**, recognizes a mathematics teacher educator who, while early in his/her career, has made distinguished contributions and shows exceptional potential for leadership in these areas.

Recipients of AMTE Awards since inception are:

Excellence in Teaching in Mathematics Teacher Education (next award in 2012)

Margaret (Peg) Smith (2009) Randy Philipp (2006)

Excellence in Service in Mathematics Teacher Education (next award in 2013)

Francis (Skip) Fennell (2010) Bill Bush (2007)

Excellence in Scholarship in Mathematics Teacher Education (next award in 2014)

Rochelle Guitierrez (2011) Frank Lester (2008)

Early Career Award (awarded annually)

Beth Herbel-Eisenmann (2010) John Lannin (2009)

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

Deadline for Nominations

Nominations for the **Excellence in Scholarship Award** must be received by **September 30, 2011**. For the **Early Career Award**, nominations must be received by **October 15, 2011**.

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 recipients will be notified by late November, so that the person can have time to make arrangements to attend the AMTE conference.

The award recipients will receive a plaque and be recognized at the AMTE meeting in the year in which he or she receives the award. The winner of the Excellence Award will give a featured presentation at the AMTE Annual Conference in the year they receive the award. The winner of the Early Career Award will be recognized at the annual AMTE meeting and asked to contribute an article for the Summer *AMTE Connections* Newsletter and to lead a mentoring session for other early career mathematics education faculty at the annual AMTE meeting.

2012 Award for Excellence in Teaching in Mathematics Teacher Education

The Excellence in Teaching Award is intended to recognize a colleague for a unique contribution to the pedagogy of mathematics teacher education. We invite nominations that highlight an individual's innovative practices in teaching. The following are examples of demonstrations of innovations in teaching preservice or inservice mathematics teachers:

- a. Implementation of effective and innovative teaching practices.
- b. Demonstration of innovative teaching methods (e.g. publications, materials, video)
- c. Recipient of awards in teaching.

Documentation required for Award for Excellence Awards:

- a. A current vita of the nominee.
- b. A letter of nomination from an established colleague documenting evidence that supports nominee's contributions in the particular focus area (service, teaching, scholarship) for which he or she is nominated.
- c. Additional letters of support (no more than <u>two</u>) from individuals (e.g., colleagues within and outside of the individual's institution, recent doctoral graduates mentored by the nominee) knowledgeable of the nominee's contributions relative to the focus area. Multiple authored letters are accepted.

Nomination Process

AMTE members can nominate a mathematics teacher educator who meets the criteria for the particular focus area (service, teaching, scholarship). 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 Tony Nguyen at tonguyen@projects.sdsu.edu.

Hard copy submissions should be sent to:

Tony Nguyen c/o Nadine Bezuk Attn: AMTE Award Nomination Center for Research in Mathematics and Science Education (CRMSE) 6475 Alvarado Road, 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.

2012 Early Career Award

The Board of Directors of the Association of Mathematics Teacher Educators (AMTE) has established an **Early Career Award**. The Early Career Award will be given on an annual basis, and the recipient recognized at the annual meeting of the AMTE. The purpose of this award is to recognize a mathematics teacher educator who, while early in his/her career, has made distinguished contributions and shows exceptional potential for leadership in one or more areas of teaching, service, and/or scholarship.

Criteria for Early Career Award

The nominee for the Early Career Award should be a mathematics teacher educator practicing in the field no later than 10 years after receipt of a doctoral degree.

The Early Career Award is intended to recognize a colleague's contributions in his or her program of teaching, service, and/or scholarship within the first decade after receiving a doctoral degree. We invite nominations that highlight an individual's innovative contributions in one or more areas of teaching, service, and/or scholarship.

Teaching: Contributions in the area of teaching preservice or in-service mathematics teachers may include one or more of the following areas:

- a. Implementation of effective and innovative teaching practices.
- b. Demonstration of innovative teaching methods (e.g. publications, materials, video)
- c. Recipient of awards in teaching from department, college, university and/or national entities.

Service: Contributions in the area of service to mathematics teacher education may include one or more of the following areas:

- a. Active participation in advancing the development and improvement of mathematics teacher education (e.g., membership and leadership roles in state, national, and international organizations).
- b. Active promotion and participation in activities promoting quality mathematics teacher education (e.g., creator of programs, coordinator of programs, author of and participant in grants, conferences, symposia, academies).
- c. Active participation in the governmental and political areas to promote and protect beneficial legislation, to promote better awareness, and/or to build better communication.
- d. Active promotion and participation in school-university-community-government partnerships that have advanced mathematics teacher education at the local, state, and/or national level.
- e. An unusual commitment to the support of mathematics teachers in the field (e.g., distinctive mentoring experiences).

Scholarship: Contributions in the area of scholarship to mathematics teacher education may include one or more of the following areas:

- a. Dissemination of research findings offering unique perspectives on the preparation or professional development of mathematics teachers.
- b. 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. Contribution of theoretical perspectives that have pushed the field forward.

Documentation required for Early Career Award:

- a. A current vita of the nominee.
- b. A letter of nomination from an established colleague documenting evidence that supports nominee's contributions in the particular focus area (service, teaching, scholarship) for which he or she is nominated.
- c. Additional letters of support (no more than <u>two</u>) from individuals (e.g., colleagues within and outside of the individual's institution, recent doctoral graduates mentored by the nominee) knowledgeable of the nominee's contributions relative to the focus area. Multiple authored letters are accepted.

Nomination Process

AMTE members can nominate a mathematics teacher educator who meets the criteria for eligibility. Self-nominations will not be considered. The three areas of teaching, service, and scholarship shall be weighted equally in the evaluation of the nomination materials. Nominees do not need to demonstrate exceptional work in every area, and may be considered for exemplary work in only one area.

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 Tony Nguyen at tonguyen@projects.sdsu.edu.

Hard copy submissions should be sent to:

Tony Nguyen c/o Nadine Bezuk Attn: AMTE Award Nomination Center for Research in Mathematics and Science Education (CRMSE) 6475 Alvarado Road, 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.

A/N 1991-2011	Celebrating 20 Years Anniversary Trivia	
	at year did AMTE present the first "Excellence in Service in Mathematics cher Education" Award? And who was the first recipient?	
	t year did AMTE present the first "Excellence in Scholarship in Mathematics cher Education" Award? And who was the recipient? هرون لونعيلا ۲٥٩٦٩	



http://www.citejournal.org

CALL FOR MANUSCRIPTS!

Share research regarding issues of technology use in mathematics teacher education. If you have an expository paper focusing on innovative approaches to integrating technology into teacher education, submit those to the "Current Practice" section of CITE.

The *CITE-Math Journal* provides a forum for a dialog about best practices of utilizing technology in the preparation of mathematics teachers. Papers may address any area of research in technology and mathematics teacher education, dealing with either preservice and inservice issues. Papers will be reviewed on the following criteria: relevance to technology and mathematics teacher education research, originality, clarity of expression, and literature support.

A wide range of formats and approaches to scholarship are accepted, including qualitative research, quantitative research, and theoretical pieces. Articles will be published in an 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 allows for the inclusion of various media including applets, color graphics, photographs, video, etc. Manuscripts may be submitted online through the journal website (http://site.aace.org/newpubs/index.cfm?fuseaction=Info.CITEEntrance). Inquiries about potential manuscript topics are welcomed.

Listed below are the papers published during 2010 in CITE-Math's 4 issues.

Volume 10, Issue 1 2010

Niess, M. L. & Walker, J. M. (2010). Guest editorial: Digital videos as tools for learning mathematics. *Contemporary Issues in Technology and Teacher Education*, *10*(1). Retrieved from <u>http://www.citejournal.org/vol10/iss1/mathematics/article1.cfm</u>

Volume 10, Issue 2 2010

Berry, R. Q., III, Bull, G., Browning, C., Thomas, C. D., Starkweather, K., & Aylor, J. H. (2010). Preliminary considerations regarding use of digital fabrication to incorporate engineering design principles in elementary mathematics education. *Contemporary Issues in Technology and Teacher Education*, *10*(2). Retrieved from http://www.citejournal.org/vol10/iss2/editorial/article1.cfm

Volume 10, Issue 4 2010

Shafer, K. G. (2010). The proof is in the screencast. *Contemporary Issues in Technology and Teacher Education*, *10*(4). Retrieved from <u>http://www.citejournal.org/vol10/iss4/mathematics/article1.cfm</u>

CALL FOR REVIEWERS!

Reviewers serve an important function in evaluating the research submitted to *CITE-Math* as we consider papers regarding issues and innovative uses of technology use in mathematics teacher education. Members of the review board are given no more than three manuscripts per year, with usually four weeks to complete each review.

Interested?

Go to <u>http://site.aace.org/newpubs/index.cfm?fuseaction=Info.CITEEntrance</u> and complete an information form online. You also need to select CITE-Math as the journal you are willing to review. After you have completed the online form, please send an email to the CITE-Math co-editor, Christine Browning (<u>Christine.browning@wmich.edu</u>) with responses to the following questions:

What are your areas of expertise in mathematics education, technology, and research? What types of articles do you feel particularly able to review? Are there other things that you might tell us that will help us send you the most appropriate articles to review? (other areas you know well, experiences that might be useful, etc.)

Questions? Contact Christine Browning (christine.browning@wmich.edu) for more information.

CALL FOR READERS!

Read an article and post your comments online 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 online 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:

- Christine Browning (christine.browning@wmich.edu), or
- Denny St. John (<u>stjoh1d@cmich.edu</u>)

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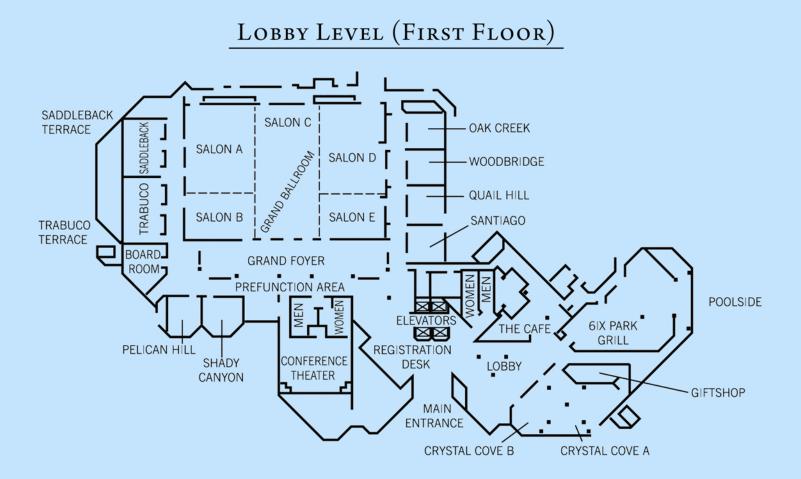
The *CITE Journal* is an online, peer-reviewed journal, established and jointly sponsored by five professional associations:

- AMTE Association of Mathematics Teacher Educators
- ASTE Association of Science Teacher Educators
- 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

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