

Program Summary Information for Wednesday, April 21, 2010

See page 5 for Conference Strand descriptions.

Wednesday Summary

| 7:30–8:30: Wednesday Breakfast (ticket required), Phil Daro, sponsored by America’s Choice, Douglas CD | | | | | |
|--|---|--|--|--|--|
| Annie (3) | Edward CD (2) | Elizabeth AB (2) | Elizabeth F (2) | Elizabeth G (2) | Elizabeth H (2) |
| <p>8:45</p> <p>Session 310: Tom Synder Productions Sponsor Showcase Grades 2–8 Trow, Critical Foundations for Algebra—Implications for Intervention</p> | <p>Session 305 Intermediate (3–5), Strand 6 Bedford, Hedges, Schefelker, Building Effective Relationships That Lead to Instructional Change in Mathematics Classrooms</p> | <p>Session 303 General, Strand 1 Scott, Creating Mathematic Openings for Children of African Descent</p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Numbers in parentheses beside room names indicate floor levels.</p> | <p>Session 307 Secondary (9–12), Strand 5 Toncheff, Schexnayder, New PRIME Leaders: Where Do We Start?</p> | <p>Session 315 Secondary (9–12), Strand 3 Smith, Exploring the Potential of Narrative Cases in Developing Teachers in Developing Teachers Capacity to Reason and Prove</p> | <p>Session 308 Secondary (9–12), Strand 6 Thompson, Beckmann, Coaching Teachers to Ask Questions That Provide Just Enough Help to Move Students Forward</p> |
| <p>9:45</p> <p>Session 325: Texas Instruments Sponsor Showcase 7th and 8th Grade Algebra Haney, San Juan, Changing Opportunities and Changing Lives by Moving MathForward</p> | <p>Session 321 Middle (6–8), Strand 2 Sheffield, Tassel, Exploring Middle Grades Mathematics: Setting the Course for the Future</p> | <p>Session 324 Secondary (9–12), Strand 2 Slover, States Moving Towards Common Core Standards</p> | <p>Session 320 Intermediate (3–5), Strand 4 Storeygard, Myren, Supporting Students to Develop Learning Behaviors in Mathematics Class</p> | <p>Session 322 Secondary (9–12), Strand 3 Held, Wilson, Mathematical Knowledge for Teaching Secondary Mathematics: Classroom-Based Scenarios and a Framework</p> | <p>Session 332 Secondary (9–12), Strand 3 Held, Wilson, Mathematical Knowledge for Teaching Secondary Mathematics: Classroom-Based Scenarios and a Framework</p> |
| <p>10:00</p> <p>Session 340: America’s Choice Sponsor Showcase General Daro, Williams, The Common Core Standards—Getting Ahead of the Curve for Implementation</p> | <p>Session 337 Middle (6–8), Strand 6 Lynch, Building a Mathematics Professionals Learning Communities (PLCs) Using Enhanced Journal Articles</p> | <p>Session 335 Primary (PK–2), Strand 1 Fuson, Kindergarten and First Graders from Poverty Schools Can Achieve Like East Asian Children and Older U.S. Children</p> | <p>Session 336 Intermediate (3–5), Strand 2 Charles, Azin, Is Your Instructional Program Really Effective? Guidelines for Designing and Evaluating Curriculum Effectiveness Research</p> | <p>Session 327 General, Strand 1 Bay-Williams, Karp, Transforming Mathematics Classrooms: Teaching Mathematics Equitably to All Students</p> | <p>Session 333 General, Strand 6 Morse, What Do Math Coaches Need to Know and How Do They Learn It?</p> |
| <p>11:00</p> <p>Session 350 General, Charter Schools Tamler, Lessons Learned from Experiments in Mathematics Education in Our Charter Schools</p> | <p>Session 347 General, Special Needs Gross, Brodesky, Fagan, Improving Mathematics Education for Students with Special Needs</p> | <p>Session 346 General, NASGEm Silverman, Sgarlotti, Leading Mathematics Education of Marginalized Students: Debunking Stereotypes, Teaching Measurement, Applying the CREDE Model and Ethnomathematics with Native American Learners</p> | <p>Session 343 General, TODOS Ramirez, Franco, Equity in Mathematics Education: TODOS</p> | <p>Session 352 General, AMTE Bezuk, Reys, Association of Mathematics Teacher Educators (AMTE)</p> | <p>Session 344 General, UIMLN Gartzman, Hull, Urban Mathematics Leadership Network Forum</p> |
| 12:30–2:30: Session 341, Wednesday Luncheon (ticket required), sponsored by CASIO America, Inc. and Houghton Mifflin Harcourt, Douglas CD | | | | | |
| <p>12:00</p> <p>Session 340: America’s Choice Sponsor Showcase General Daro, Williams, The Common Core Standards—Getting Ahead of the Curve for Implementation</p> | <p>Session 337 Middle (6–8), Strand 6 Lynch, Building a Mathematics Professionals Learning Communities (PLCs) Using Enhanced Journal Articles</p> | <p>Session 335 Primary (PK–2), Strand 1 Fuson, Kindergarten and First Graders from Poverty Schools Can Achieve Like East Asian Children and Older U.S. Children</p> | <p>Session 336 Intermediate (3–5), Strand 2 Charles, Azin, Is Your Instructional Program Really Effective? Guidelines for Designing and Evaluating Curriculum Effectiveness Research</p> | <p>Session 327 General, Strand 1 Bay-Williams, Karp, Transforming Mathematics Classrooms: Teaching Mathematics Equitably to All Students</p> | <p>Session 333 General, Strand 6 Morse, What Do Math Coaches Need to Know and How Do They Learn It?</p> |
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| <p>4:00</p> | All Wednesday 2:45–4:00 sessions are Special Interest Group meetings. | | | | <p>Session 344 General, UIMLN Gartzman, Hull, Urban Mathematics Leadership Network Forum</p> |

Wednesday Summary

7:30–8:30: Wednesday Breakfast (ticket required), Phil Daro, sponsored by America’s Choice, Douglas CD

| | Emma (3) | Madeleine AB (3) | Manchester GHI (2) | Mohsen (3) | Molly AB (2) |
|-------|----------|--|--|---|--|
| 8:45 | | <p>Session 306 Middle (6–8), Strand 1 Gross, Brodesky, PD to Strengthen Collaboration Between Math Teachers and Special Educators: A Key to Improving Math Learning by Students with Special Needs</p> | <p>Session 302: Major Session General Shaughnessy, Foreman, Board, The Mathematics Studio Classroom: A Promising Context for Transforming Mathematics Teaching</p> | <p>Session 304 General, Strand 1 Sudreth, A Tiered Model for Mathematics Success</p> | <p>Session 309 Secondary (9–12), Strand 3 Bradsby, The Leader’s Role in Charting Successful Intervention Strategies in the Secondary School Using Algebra I Examples</p> |
| 9:45 | | <p>Session 318 General, Strand 5 Zimmermann, Jain, How to Achieve the Vision of the PRIMME Teaching and Learning Principle: From Words to Action</p> | <p>Session 317: Major Session General Flores, Achievement Gap or Opportunity Gap? Changing the Perspective About School Performance in Mathematics</p> | <p>Session 319 General, Strand 1 Simpson, Martin, Comprehensive Mathematics: Connecting Concepts and Context for America’s First Children</p> | <p>Session 323 Secondary (9–12), Strand 3 Kysh, Resek, Lessons Learned in Leadership for Classroom Change</p> |
| 11:00 | | <p>Session 334 General, Strand 3 McGlone, Barta, Hern, Harding-Dekam, Motivate Your Faculty by Connecting Culture and Mathematics</p> | <p>Session 332: Major Session General Loewenberg Ball, Learning to Do Mathematics as a Teacher</p> | <p>Session 339 Secondary (9–12), Strand 1 Hoover, Salmons, Walker, Any’s Story—Taking on the Hard Issues of Equitable Student Access to Mathematics in a Freshman Algebra I Class</p> | <p>Session 338 Secondary (9–12), Strand 3 Lawrence, Radical Reform for the Teaching and Learning of Algebra I</p> |
| 11:15 | | | | | Numbers in parentheses beside room names indicate floor levels. |
| 12:15 | | | | | |

12:30–2:30: Session 341, Wednesday Luncheon (ticket required), sponsored by CASIO America, Inc. and Houghton Mifflin Harcourt, Douglas CD

| | | | | |
|------|--|--|---|--|
| 2:45 | <p>Session 348 General, Networking for Consultants Norris, Educational Consultants: A Networking Opportunity</p> | <p>Session 342 General, STEM Slover, Findell, Many Roads: Mathematics Model Pathways and the Common Core State Standards</p> | <p>Session 349 General, Coaching Foster, Mathematics Content Coaching</p> | <p>Session 345 General, Benjamin Banneker Association Leonard, Ellington, Howard, Nuances and Complexities of Teaching Mathematics for Cultural Relevance and Social Justice</p> |
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Wednesday Summary

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|---|--|--|---|---|
| | Randle A (4) | Randle B (4) | Randle D (4) | Randle E (4) |
| 8:45 | Session 311 General, Strand 4 Hill, Knicl, Linnenburger, <i>Dynamic Data Analysis: Moving a District from Stagnant Assessment Gathering to Informed Instructional Decision-Making</i> | Session 316 Secondary (9–12), Strand 2 Mooney, Maly, Changing <i>the Course of High School Mathematics Classrooms: More Than One Teacher at a Time</i> <div style="border: 1px solid black; padding: 2px; text-align: center; margin: 5px auto; width: 80%;"> Numbers in parentheses beside room names indicate floor levels. </div> | Session 313 Middle (6–8), Strand 1 Ley, Too Much Content, Too Little Time: What Can I Do? How Does Technology Help? | Session 312 General, Strand 3 Gorman, A Lesson Study Learning Trajectory: How Do Novice and Experienced Teams Differ? How Can Leaders Help Teams Deepen Their Practice? |
| 10:15 | Session 314 Secondary (9–12), Strand 6 Bryson, Lessons Learned from the Back of the Room: Leading Teachers to a New Vision | | | |
| 10:30 | Session 328 General, Strand 6 Cannon, Diary of a Not-So Wimpy Coach | Session 329 General, Strand 1 Coggins, Coates, Strategies for Enhancing English Language Learners’ Success with Mathematics—They Can Be Included in Any Professional Development | Session 331 General, Strand 4 Ginsburg, Moore, We’re Assessing, Now What?: Findings from Longitudinal Assessment Data and What They Mean for K-3 Math Instruction | Session 330 General, Strand 5 Swarthout, Bohan, PRIME-ing Mathematics Teacher Mentors (MTMs) for Leadership |
| 12:00 | Session 326 General, Strand 3 Roschelle, Patton, Yeap, Wong, Integrating Curriculum, Assessment, and Teacher Professional Development: Singapore and the United States | | | |
| 12:30–2:30: Session 341, Wednesday Luncheon (ticket required), sponsored by CASIO America, Inc. and Houghton Mifflin Harcourt, Douglas CD | | | | |
| 2:45 | Session 353 General, Emerging Leaders Toncheff, Emerging Leaders: Focus Question/ Answer Time | Session 354 General, Lesson Study Networking Gorman, Lesson Study Networking: An Opportunity for Practitioners, Researchers, and Leaders to Share Lesson Study Resources, Findings and Questions | Session 356 General, Promising Creative Students Sheffield, Gavin, Nurturing Mathematically Promising and Creative Students | Session 355 General, Math Contests Kalman, Math Contests Build Better Students—and Teachers |
| 4:00 | Session 351 General, CLIME Charischak, Weksler, Math 2.0: A New Vision for Using Dynamic Math Software with Web 2.0 Tools | | | |

All Wednesday 2:45–4:00 sessions are Special Interest Group meetings.

Wednesday Sessions by Strand

| Strand 1. Charting a Course to Equity and Access | | |
|---|--------------|-------------|
| 303 | Elizabeth AB | 8:45–9:45 |
| 304 | Mohsen | 8:45–9:45 |
| 306 | Madeleine AB | 8:45–9:45 |
| 313 | Randle D | 8:45–10:15 |
| 319 | Mohsen | 10:00–11:00 |
| 327 | Elizabeth G | 10:30–12:00 |
| 329 | Randle B | 10:30–12:00 |
| 335 | Elizabeth AB | 11:15–12:15 |
| 339 | Mohsen | 11:15–12:15 |

| Strand 2. Charting a Course to Curriculum Leadership | | |
|---|--------------|-------------|
| 316 | Randle B | 8:45–10:15 |
| 321 | Edward CD | 10:00–11:00 |
| 324 | Elizabeth AB | 10:00–11:00 |
| 336 | Elizabeth F | 11:15–12:15 |

| Strand 3. Charting a Course to Teaching and Learning Leadership | | |
|--|--------------|-------------|
| 309 | Molly AB | 8:45–9:45 |
| 312 | Randle E | 8:45–10:15 |
| 315 | Elizabeth G | 8:45–10:15 |
| 322 | Elizabeth H | 10:00–11:00 |
| 323 | Molly AB | 10:00–11:00 |
| 326 | Windsor BC | 10:30–12:00 |
| 334 | Madeleine AB | 11:15–12:15 |
| 338 | Molly AB | 11:15–12:15 |

| Strand 4. Charting a Course to Assessment Leadership | | |
|---|-------------|-------------|
| 311 | Randle A | 8:45–10:15 |
| 320 | Elizabeth F | 10:00–11:00 |
| 331 | Randle D | 10:30–12:00 |

| Strand 5. Putting PRIME into Practice | | |
|--|--------------|-------------|
| 307 | Elizabeth F | 8:45–9:45 |
| 318 | Madeleine AB | 10:00–11:00 |
| 330 | Randle E | 10:30–12:00 |

| Strand 6. Developing Coaches – Developing Teachers | | |
|---|-------------|-------------|
| 305 | Edward CD | 8:45–9:45 |
| 308 | Elizabeth H | 8:45–9:45 |
| 314 | Windsor BC | 8:45–10:15 |
| 328 | Randle A | 10:30–12:00 |
| 333 | Elizabeth H | 11:15–12:15 |
| 337 | Edward CD | 11:15–12:15 |

Wednesday 8:45–9:45

Session 302: Major Session

General

Manchester GHI

The Mathematics Studio Classroom: A Promising Context for Transforming Mathematics Teaching, Coaching, and Leadership

Mike Shaughnessy, President-Elect, National Council of Teachers of Mathematics, Department of Mathematics and Statistics, Portland State University, Portland, OR

Linda Foreman, Teachers Development Group, West Linn, OR

Jill Board, Teachers Development Group, West Linn, OR

Presider: Connie Schrock, NCSM Central 2 Regional Director, Emporia, KS

This session will provide an overview of the Mathematics Studio Program, the research that grounds its design, and the practices and tools that are surfacing as most promising for leveraging high-cognitive engagement for K-12 math students, teachers, coaches, and administrators alike.



Mike Shaughnessy received his Ph.D. degree in Mathematics Education from the Department of Mathematics at Michigan State University in 1976. He worked in the Department of Mathematics at Oregon State University (OSU) 1976–1991, and subsequently at Portland State University (PSU) in

the Dept of Mathematics & Statistics 1991–2008. He has taught mathematics content courses and directed professional development experiences for mathematics teachers at all levels, K-12, community college, and university. He has authored or co-authored over 60 articles, books, and book chapters on issues in the teaching and learning of mathematics. His principal research interests in mathematics education throughout his career have been in the teaching and learning of statistics and probability, and in the teaching and learning of geometry. In the fall of 2008, Dr. Shaughnessy was elected President of the National Council of Teachers of Mathematics. He is currently serving his year as President Elect of the Council.

Session 303

General

Strand 1

Elizabeth AB

Creating Mathematic Openings for Children of African Descent

This session will provide some examples of Mathematizing Opening to start off the class activities. The session is designed for mathematic educators to realize the need for a paradigm shift in order to bring students of African descent into mathematics. The Opening will include various topics in mathematics.

Kwame Anthony Scott, Retired, Chicago, IL

Session 304

General

Strand 1

Mohsen

A Tiered Model for Mathematics Success

Utah's 3 Tier Model of Mathematics Instruction is a framework designed to facilitate mathematical success for all students. The 3 tiers describe a process for quality instruction for all learners and targeted interventions for those who need additional support. Instruction, assessment, research, and evaluation work together for success for all.

Diana Suddreth, Utah State Office of Education, North Salt Lake, UT

Session 305

Intermediate (3–5)

Strand 6

Edward CD

Building Effective Relationships That Lead to Instructional Change in Mathematics Classrooms

Initiating, facilitating, and sustaining change in mathematics teaching and learning in a large urban district is a challenge. Come hear how the Milwaukee Mathematics Partnership (MMP) has established an effective model of distributive leadership that has impacted classroom practice and student achievement!

Pandora Bedford, Milwaukee Public Schools, Milwaukee, WI

Melissa Hedges, Milwaukee Public Schools, Milwaukee, WI

Beth Schefelker, Milwaukee Public Schools, Milwaukee, WI

Session 306

Middle (6–8)

Strand 1

Madeleine AB

PD to Strengthen Collaboration Between Math Teachers and Special Educators: A Key to Improving Math Learning by Students with Special Needs

What are ways to help mathematics teachers and special education educators collaborate to effectively teach students with special needs? What works well in different school contexts and what challenges can get in the way? Participants will experience professional development activities that they can use with teachers in their own districts.

Fred Gross, Education Development Center, Newton, MA

Amy Brodesky, Education Development Center, Newton, MA

Wednesday 8:45–9:45 (continued)

Session 307

Secondary (9–12) Strand 5 Elizabeth F

New PRIME Leaders: Where Do We Start?

Are you new to a math leadership position? This session will “navigate through the sea” of math leadership, focusing on three things math leaders can do to create a culture of adult learners focused on student achievement. Session will include handouts and resources for new math leaders to get started.

Mona Toncheff, Phoenix Union High School District, Phoenix, AZ

Juli Schexnayder, Maryvale High School, Phoenix, AZ

Session 308

Secondary (9–12) Strand 6 Elizabeth H

Coaching Teachers to Ask Questions That Provide Just Enough Help to Move Students Forward

How can teachers be encouraged and prepared to ask questions that provide “just enough” help so that student thinking is supported but not supplanted? In this session, participants will engage in a questioning approach to be used with teachers to enhance their questioning techniques. Secondary examples will be used.

Denisse Thompson, University of South Florida, Lutz, FL

Charlene Beckmann, Grand Valley State University, Muskegon, MI

Session 309

Secondary (9–12) Strand 3 Molly AB

The Leader’s Role in Charting Successful Intervention Strategies in the Secondary School Using Algebra I Examples

With increased requirements and advanced standards, more special-needs students are in mathematics classrooms. Leaders need researched-based instructional intervention resources to support teachers with quality instruction to help all students. The presentation will include placement and assessment, concept-development activities, practice and problem-solving activities using the content of Algebra I.

Larry Bradsby, NCSM Past President, Consultant, Lakewood, CO

Attend a Special Interest Group meeting on Wednesday afternoon. See page 70 for details.

Session 310: Tom Snyder Productions Sponsor Showcase

Grades 2-8

Annie

Critical Foundations for Algebra—Implications for Intervention

Marilyn Trow, Tom Snyder Scholastic Company, New York, NY

According to the National Math Panel report, the key to helping all students be successful with algebra is ensuring that the critical core foundations of mathematics are thoroughly mastered: Fluency with Whole Numbers and Fluency with Fractions. In this interactive session, we will explore the implications this has for intervention.



Wednesday 8:45–10:15 (Extended)

Session 311

General

Strand 4

Randle A

Dynamic Data Analysis: Moving a District from Stagnant Assessment Gathering to Informed Instructional Decision-Making

Curriculum coordinators will share how using TinkerPlots and other data-analysis protocols have changed the assessment culture of the Champaign Unit 4 School District. How data is used at the district, building and teacher level will be shared. Handouts will be provided”

Polly Hill, Champaign Unit 4 Schools, Monticello, IL

Leslie Kniel, Champaign Unit 4 Schools, Mahomet, IL

Jim Linnenburger, Champaign Unit 4 Schools, Champaign, IL

Session 312

General

Strand 3

Randle E

A Lesson Study Learning Trajectory: How Do Novice and Experienced Teams Differ? How Can Leaders Help Teams Deepen Their Practice?

We will share a model for strong, sustainable lesson study, looking closely at developmental growth of teams from novice to experienced at several key moments in the lesson study process. Discussion and activities will help participants reflect on how leaders support team development and mathematical learning at these points.

Jane Gorman, Education Development Center, Inc. (EDC), Dorchester, MA

Session 313

Middle (6–8)

Strand 1

Randle D

Too Much Content, Too Little Time: What Can I Do? How Does Technology Help?

Participants will investigate strategies to enable the content rich mathematics course to be effectively taught within the required time. Strategies for constant revision, integrating spreadsheets to enable investigations, improving examination performance, and increasing student confidence and understanding will be provided.

John Ley, Xavier College, South Penrith, NSW, Australia

Session 314

Secondary (9–12)

Strand 6

Windsor BC

Lessons Learned from the Back of the Room: Leading Teachers to a New Vision

The view from the back of the room offers a new perspective on what’s really happening in math classrooms. Hear about how lessons learned and coaching conversations facilitated teachers and departments to change the culture of math teaching and learning.

Janet Bryson, Exponential Learning Solutions, Monrovia, CA

Session 315

Secondary (9–12)

Strand 3

Elizabeth G

Exploring the Potential of Narrative Cases in Developing Teachers Capacity to Reason and Prove

In this session, participants will engage in a discussion and analysis of a narrative case designed to develop teachers’ proficiency related to the teaching and learning of reasoning and proving in secondary mathematics classrooms.

Margaret Smith, University of Pittsburgh, Gibsonia, PA

Session 316

Secondary (9–12)

Strand 2

Randle B

Changing the Course of High School Mathematics Classrooms: More Than One Teacher at a Time

What support is needed when implementing a standards-based curriculum? Come and share our district’s journey in implementing the Discovering Mathematics program. Participate in activities designed for math teacher leaders and administrators to advance their classroom instruction, improve content knowledge, and deepen their understanding of a discovering approach.

Mary Mooney, Milwaukee Public Schools, Milwaukee, WI

Laura Maly, Milwaukee Public Schools, Milwaukee, WI

Receive a 25% discount at the NCTM Bookstore at the San Diego Conference Center on Wednesday afternoon by wearing your NCSM name badge.

Nominate a leader in mathematics education for the Ross Taylor/ Glenn Gilbert National Leadership Award. See details on page 77.

Wednesday 10:00–11:00

Session 317: Major Session

General

Manchester GHI

Achievement Gap or Opportunity Gap? Changing the Perspective About School Performance in Mathematics

Alfinio Flores, Hollowell Professor of Mathematics Education, Department of Mathematical Sciences, University of Delaware, Newark, DE

Presider: Steven Viktora, NCSM Central 1 Regional Director, Winnetka, IL

Persistent differences in performance in school mathematics among students of different ethnic groups and socioeconomic levels are discussed by focusing on unequal distribution of factors that have a bearing on opportunities to learn. The factors discussed are access to experienced and qualified teachers, high expectations, and equitable per student funding.



Dr. Alfinio Flores teaches mathematics and mathematics methods courses to prospective secondary teachers. He earned B. Sc. and M. Sc. degrees in mathematics at the National University of Mexico UNAM, and a Ph. D. in mathematics education at The Ohio State University. His interests are the

use of computers, graphing calculators and concrete materials for the learning of mathematical concepts; professional development of teachers of mathematics; and equity in mathematics teaching and learning. He has published over 120 articles and book chapters in national and international refereed publications, and presented at national and international conferences on mathematics education. He has conducted activities for students in schools ranging for Kindergarten to 12th grade, and conducted professional development sessions for teachers of mathematics in elementary and secondary schools and for instructors of mathematics in universities in 32 states in two countries.

Session 318

General

Strand 5

Madeleine AB

How to Achieve the Vision of the PRIME Teaching and Learning Principle: From Words to Action

This fast paced workshop will present key ideas on how to implement the three PRIME Indicators for teaching and learning in order to bring rigor, meaning and relevance to the teacher planning and student learning experience. Audience interaction and PRIME sharing will be part of this session as well.

Gwen Zimmermann, Adlai E. Stevenson High School, Bolingbrook, IL

Darshan Jain, Adlai E. Stevenson High School, Lincolnshire, IL

Session 319

General

Strand 1

Mohsen

Comprehensive Mathematics: Connecting Concepts and Context for America's First Children

The National American Indian, Alaskan & Hawaiian Educational Development Center works from a comprehensive mathematics framework to deliver professional development and sustained support to elementary teachers who serve Native populations in primary education, with the expectation that Native children will reach, over time, the achievement levels of their peers.

Bob Simpson, National American Indian, Alaskan & Hawaiian Educational Development Center, Sheridan, WY

Terry Martin, NAI AHEDC, Sheridan, WY

Session 320

Intermediate (3–5)

Strand 4

Elizabeth F

Supporting Students to Develop Learning Behaviors in Mathematics Class

In order to support students who struggle with mathematics to think of themselves as capable learners, it is important for teachers to keep track of students' progress in developing learning behaviors. In this session we will introduce and describe the use of an assessment tool, the Learning Behavior Observation Record.

Judy Storeygard, Technical Education Research Center, Winchester, MA

Christina Myren, Mathematics Education Consultant, Thousands Oaks, CA

Session 321

Middle (6–8)

Strand 2

Edward CD

Exploring Middle Grades Mathematics: Setting the Course for the Future

A rigorous, engaging middle grades mathematics curriculum can be the key to student success. In this session, participants will investigate activities from a grant designed to improve student performance on the EXPLORE assessment and prepare students for high school mathematics and beyond through the implementation of such a curriculum.

Linda Sheffield, Northern Kentucky University - Emeritus, Ft. Thomas, KY

Janet Tassell, Western Kentucky University, Bowling Green, KY

Wednesday 10:00–11:00 (continued)

Session 322

Secondary (9–12) Strand 3 Elizabeth H

Mathematical Knowledge for Teaching Secondary Mathematics: Classroom-Based Scenarios and a Framework

By identifying and studying opportunities for the use of mathematics that occur in teaching secondary mathematics, groups at Penn State and University of Georgia have developed descriptions of and a framework for mathematical knowledge for teaching secondary mathematics. The framework can provide support in supplementing mathematical learning of secondary teachers.

M. Kathleen Heid, The Pennsylvania State University, State College, PA

Patricia Wilson, University of Georgia, Athens, GA

Session 323

Secondary (9–12) Strand 3 Molly AB

Lessons Learned in Leadership for Classroom Change

We will share examples of key activities that in hindsight lead to lasting change in the culture of some and not other high school mathematics departments. Possible reasons for change in some departments and not others and issues of sustaining momentum and continuing progress in improving learning and teaching will be discussed.

Judy Kysh, San Francisco State University, Berkeley, CA

Diane Resek, San Francisco State University (Retired), Berkeley, CA

Session 324

Secondary (9–12) Strand 2 Elizabeth AB

States Moving Towards Common Core Standards

In implementing a set of common core, state-led standards in mathematics, states aim to increase the equity and access to rigorous curriculum for all students.

Laura Slover, Achieve, Inc., Washington, DC

Session 325: Texas Instruments Sponsor Showcase

7th and 8th Grade Algebra Annie

Changing Opportunities and Changing Lives by Moving MathForward

Paula Haney, Richardson Ind. School District, Dallas, TX

Kristen San Juan, Richardson Ind. School District, Dallas, TX

Come learn how mathematics test scores have risen year after year for students in the TI MathForward program in the Richardson Independent School District in Dallas, Texas. This session shows how the program helps increase student achievement by combining professional development, curriculum enhancement, and technology to engage students.

Wednesday 10:30–12:00 (Extended)

Session 326

General Strand 3 Windsor BC

Integrating Curriculum, Assessment, and Teacher Professional Development: Singapore and the United States

This session will go beyond the popular but oversimplified views of Singapore's successes. A panel of collaborators, two from Singapore's National Institute of Education and two from SRI, will discuss Singapore's integrated system of leadership in teacher professional development and key success factors that can be applied in the United States.

Jeremy Roschelle, Stanford Research Institute International, Menlo Park, CA

Charles Patton, Stanford Research Institute International, Menlo Park, CA

Ban Har Yeap, National Institute of Education, Singapore

Khoon Yoong Wong, National Institute of Education, Singapore

Session 327

General Strand 1 Elizabeth G

Transforming Mathematics Classrooms: Teaching Mathematics Equitably to All Students

How can mathematics education leaders help teachers adapt instruction based on student needs and supporting learning for diverse populations? The key is focusing on a rich treatment of mathematics content and to differentiate instruction. We will share ideas for implementing equitable instruction, including a multi-tiered approach and strategies for ELLs (English Language Learners).

Jennifer Bay-Williams, University of Louisville, PeWee Valley, KY

Karen Karp, University of Louisville, Louisville, KY

Session 328

General Strand 6 Randle A

Diary of a Not-So Wimpy Coach

Participants will identify their current work, assess their needs, and plan action steps to facilitate change within the framework of this session. An experienced Mathematics Instructional Coach, certified in the Heart of Change Coaching for Excellence model, will share her expertise, specific coaching maps/tools, and her personal experience.

Marilyn Cannon, Raytown School District, Kingsville, MO

Wednesday 10:30–12:00 (continued)

Session 329

General Strand 1 Randle B

Strategies for Enhancing English Language Learners' Success with Mathematics—They Can Be Included in Any Professional Development

Several practical strategies, such as Use Visual Tools, and Provide Scaffolds, increase ELLs (English Language Learners) access to mathematics content. Routines and strategies that increase student participation, use of language, and achievement will be explored within an algebra context. Ideas for incorporating experiences with ELL strategies into professional development situations will be shared.

Debra Coggins, Debra Coggins & Associates, Lafayette, CA

Grace Dávila Coates, EQUALS - Lawrence Hall of Science, Hayward, CA

Session 330

General Strand 5 Randle E

PRIME-ing Mathematics Teacher Mentors (MTMs) for Leadership

Interested in developing K-12 teacher leaders? This session shares a collaborative project between higher education and a regional education service center to prepare teacher mentors. MTMs explored the PRIME framework through interactive videoconferencing. How the document was used to initiate discussion revolving around the four principles will be presented.

Mary Swarthout, Sam Houston State University, Huntsville, TX

Susan Bohan, Education Service Center, Region VI, Huntsville, TX

Session 331

General Strand 4 Randle D

We're Assessing, Now What?: Findings from Longitudinal Assessment Data and What They Mean for K-3 Math Instruction

IES-funded research examining 3 years of longitudinal assessment data reveals patterns in student learning that hold significance for early math education. Learn and discuss the relevance of these findings to your math program. Profiles and lesson plans will be shared, as well as effective implementation strategies.

Herb Ginsburg, Columbia Teachers College, New York, NY
Doug Moore, Wireless Generation, Brooklyn, NY

Wednesday 11:15–12:15

Session 332: Major Session

General Manchester GHI

Learning to Do Mathematics as a Teacher

Deborah Loewenberg Ball, Professor and Dean, School of Education, University of Michigan, Ann Arbor, MI

Presider: Suzanne Mitchell, NCSM Southern 2 Regional Director, Jacksonville, AR

This session will explore the special challenge of learning (and teaching) mathematics in ways needed for the work of teaching. Using case examples, we will examine three special demands of teaching mathematics to teachers: unpacking mathematical ideas, developing horizon knowledge, and practicing mathematics for teaching.



Deborah Loewenberg Ball is a researcher who studies mathematics education, with a focus on the improvement of teaching quality and student learning. She is herself an experienced elementary school teacher and is currently dean of the School of Education at the University of Michigan at Ann

Arbor where she is leading an effort to rebuild the system for ensuring the supply, through a variety of pathways, of skilled teachers for our nation's schools. Her research focuses on mathematics instruction, and on interventions designed to improve its quality and effectiveness. Ball has authored or co-authored over 150 publications and has lectured and made numerous major presentations around the world. She is a member of the National Academy of Education.

Session 333

General Strand 6 Elizabeth H

What Do Math Coaches Need to Know and How Do They Learn It?

Participants will engage in discussion and activities designed to elicit new ideas about essential elements of the coaching role, to consider the implications for coaching knowledge, and to investigate means for engaging in meaningful learning about coaching. Come work with coaches' writing as a lens for examining important ideas about teaching and learning.

Amy Morse, Education Development Center, Northampton, MA

Wednesday 11:15–12:15 (continued)

Session 334

General **Strand 3** **Madeleine AB**

Motivate Your Faculty by Connecting Culture and Mathematics

How can you get your entire faculty (not just mathematics teachers) behind an idea? Ask them to discover the mathematics in the cultures of your students. This NASGEM presentation documents how one school successfully incorporated this strategy to motivate its entire faculty to participate in a family math night program.

Chadd McGlone, Trinity School of Durham, Chapel Hill, NC

Jim Barta, Utah State University, South Lake City, UT

Meghan Hern, Howard County Public Schools, Sykesville, MD

Jenni Harding-Dekam, University of Northern Colorado, Greeley, CO

Session 335

Primary (PK–2) **Strand 1** **Elizabeth AB**

Kindergarten and First Graders from Poverty Schools Can Achieve Like East Asian Children and Older U.S. Children

Kindergarten and first graders from backgrounds of poverty learned place value, money, and word problem solving. They performed as well as East Asian children and/or better than U.S. children from more-advantaged and/or from older samples. Student learning paths and teaching activities that give access to all students will be described.

Karen Fuson, Self-employed, Fallbrook, CA

Session 336

Intermediate (3–5) **Strand 2** **Elizabeth F**

Is Your Instructional Program Really Effective? Guidelines for Designing and Evaluating Curriculum Effectiveness Research

Educational leaders are demanding evidence of the effectiveness of school curricula. This session will provide background for this movement. A research study that meets the gold standard for curriculum research will be described. The session will end by having participants evaluate the quality of brief research reports using research-assessment guidelines.

Randall Charles, San Jose State University, Carmel, CA

Mariam Azin, PRES Associates, Inc., Jackson, WY

Session 337

Middle (6–8) **Strand 6** **Edward CD**

Building a Mathematics Professional Learning Communities (PLCs) Using Enhanced Journal Articles

Participants will actively engage in exploring journal articles that have been enhanced by NCTM's Professional Development Services Committee. Session leaders will model the use of enhanced journal articles to build school-based, professional learning communities of mathematics teachers. The selected article is middle-school focused, but the process is transferable to other levels.

Monique Lynch, NCTM, Leesburg, VA

Session 338

Secondary (9–12) **Strand 3** **Molly AB**

Radical Reform for the Teaching and Learning of Algebra I

Frustration with a 65% failure rate in Algebra I prompted several districts to become involved with an initiative that includes extensive professional development, 80-90 minute per day student contact, coaching, use of hands-on discovery-based lessons, TI-Nspire technology, Smart Board technology, and data driven decisions through uniform assessments.

Paul Lawrence, LL Teach Inc, Bridgewater, NJ

Session 339

Secondary (9–12) **Strand 1** **Mohsen**

Amy's Story—Taking on the Hard Issues of Equitable Student Access to Mathematics in a Freshman Algebra I Class

Student stories and a teacher's journey around the challenges, struggles, and successes of applying Best Practices in Mathematics in a "studio" classroom, establishing socio-mathematical norms, and trusting her students to become problem solvers will be shared. This story will show how mathematics became meaningful, accessible and challenging through the use of visual models and multiple representations.

Murrel Hoover, Teachers Development Group, Elkview, WV

Amy Salmons, Williamson High School, Naugatuck, WV

Cathy Walker, Marshall University, South Charleston, WV

Session 340: America's Choice Sponsor Showcase

General

Annie

The Common Core Standards—Getting Ahead of the Curve for Implementation

Phil Daro, America's Choice, Washington, DC

James Williams, America's Choice, Washington, DC

Phil Daro, a member of the Mathematics Work Group for the Core Standards, and James Williams will discuss the impact of the Core Standards on teaching and learning mathematics. This discussion will focus on implications for professional development and student resources as we help schools move to the Core Standards.

Transforming Teaching: From Dissonance to Depth

Juli K. Dixon, University of Central Florida, Chuluota, FL

The idea of teaching for depth is widely supported, however, what it means to teach for depth is somewhat elusive. Our challenge is to guide teachers in charting their course to teaching for depth through examples that contrast common practices and practices that cultivate deep conceptual understanding.



Juli K. Dixon is professor of Mathematics Education at the University of Central Florida in Orlando. Her professional interests relate to developing and deepening teachers' mathematics content knowledge for teaching and communicating and justifying mathematical ideas. Throughout her

career, she has taught at various academic levels, including elementary, middle school, secondary, and post-secondary levels.

Dr. Dixon is a contributing author for the *HSP Math* and *GO Math!* programs, both published by Houghton Mifflin Harcourt, as well as various research papers and journal articles.

Dr. Dixon received a Bachelor of Arts in both Mathematics and Education from SUNY Potsdam, a Master's degree in Mathematics Education from Syracuse University, and a Ph.D. in Curriculum and Instruction with an emphasis in Mathematics Education from the University of Florida.

Nationally, she serves as the chair of the NCTM Student Explorations in Mathematics Editorial Panel and is a member of the Board of Directors for the Association of Mathematics Teacher Educators.

27th Annual Presentation of the Glenn Gilbert National Leadership Award

Each year, the Ross Taylor/Glenn Gilbert National Leadership Award is presented in memory of two dedicated mathematics educators, Bennett "Ross" Taylor and Glenn Gilbert. Ross was a part of the heart and soul of NCSM for the past 4 decades, a "Leader of Leaders" in mathematics

education, and a driving force behind the birth of NCSM. Glenn, a long time member of NCSM, was a mathematics teacher and leader from Boulder, Colorado who served as NCSM Treasurer for five years, from 1976 until his untimely death in 1981.

The Glenn Gilbert Award was first established in 1982 to honor its namesake and to provide a vehicle to annually recognize a person who exhibited the same kind of unique and dedicated contributions to mathematics education.

In 1995, the name of the award was changed to the "Glenn Gilbert National Leadership Award" to further recognize Glenn's legacy and capture the respect and stature that the award symbolizes within the mathematics education community.

In 2009, the award was renamed the "Ross Taylor / Glenn Gilbert National Leadership Award" to further exemplify the prestige of this national recognition and to further distinguish the unique dedication and contribution of its recipients. It is most fitting that this award should now bear the name of two mathematics educational giants, Ross Taylor and Glenn Gilbert.

Today, we recognize another individual who, like Ross and Glenn, has demonstrated leadership in and has made outstanding, unique, and dedicated contributions to the field of mathematics education.



Solomon Garfunkel
2009 Glenn Gilbert
Awardee

Previous Glenn Gilbert Awardees

| | |
|--|-------------------------|
| 2008 James M. Rubillo | 1996 Marilyn Burns |
| 2007 Glenda T. Lappan | 1995 James D. Gates |
| 2006 L. Carey Bolster | 1994 Zalman P. Usiskin |
| 2005 Charleen Mitchell DeRidder | 1993 Dale Seymour |
| 2004 Irvin E. Vance | 1992 Iris M. Carl |
| 2003 Mary Laycock | 1991 Dorothy S. Strong |
| 2002 Miriam A. Leiva | 1990 Stanley J. Bezuska |
| 2001 Margaret (Peg) Kenney | 1989 David R. Johnson |
| 2000 Francis (Skip) Fennell | 1988 Tom Rowan |
| 1999 F. Joe Crosswhite | 1987 Al Shulte |
| 1998 Robert B. Davis | 1986 Shirley Frye |
| 1997 Franklin Demana and Bert Waits | 1985 Ross Taylor |
| | 1984 Alexander Tobin |
| | 1983 John Del Grande |

Wednesday 2:45–4:00 (Special Interest Groups)

Session 342

General **STEM** **Manchester GHI**
Many Roads: Mathematics Model Pathways and the Common Core State Standards

Achieve, Inc and a diverse advisory group drafted model course descriptions to illustrate pathways leading to college and career readiness and readiness for STEM majors and careers. Attendees at this session will learn more about the pathways and have the chance to discuss with two panel members.”

Laura Slover, Achieve, Inc., Washington, DC

Brad Findell, Ohio Department of Education, Washington, DC

Session 343

General **TODOS** **Elizabeth F**
Equity in Mathematics Education: TODOS

Are you looking for assistance and support in making your mathematics instruction accessible to all kids, in particular Latino/Hispanic students? Do you want to learn with us and about us? We invite you to participate in the TODOS business meeting and dialogue in shaping future discussions.

Nora Ramirez, TODOS: Mathematics for All, Tempe, AZ

José Franco, TODOS: Mathematics for All, Berkeley, CA

Session 344

General **UMLN** **Elizabeth H**
Urban Mathematics Leadership Network Forum

The Urban Mathematics Leadership Network (UMLN) is composed of the mathematics directors and other mathematics leaders from 21 large urban school districts. UMLN invites leaders from urban districts to join this open, participatory forum about issues that are of particular interest to mathematics leaders and teachers in urban school districts.

Martin Gartzman, University of Illinois Chicago, Evanston, IL

Susan Hull, Charles A. Dana Center, University of Texas at Austin, Pflugerville, TX

Session 345

General **Benjamin Banneker Association** **Molly AB**
Nuances and Complexities of Teaching Mathematics for Cultural Relevance and Social Justice

Attention has been given to underrepresentation of minority students in the mathematics pipeline. However, little consideration has been given to these students as learners or the context where their learning occurs. We argue that culturally relevant instruction coupled with teaching for social justice can motivate minority students to learn mathematics.

Jacqueline Leonard, Temple University, Philadelphia, PA

Roni Ellington, Morgan State University, Baltimore, MD

Lorraine Howard, Self-Employed, Ardmore, PA

Session 346

General **NASGEm** **Elizabeth AB**
Leading Mathematics Education of Marginalized Students: Debunking Stereotypes, Teaching Measurement, Applying the NASGEm Model and Ethnomathematics with Native American Learners

North American Study Group on Ethnomathematics (NASGEm) presents Richard Sgarlotti and California Tribal members for the 11th Reunion, emphasizing contextualization of mathematics applying work from Berkeley’s Center for Research in Education, Diversity & Excellence. Hands-on, conceptually based activities show Native American measurement knowledge, thus debunking stereotypes of nonexistent measurement systems.

Fredrick “Rick” Silverman, University of Northern Colorado, Greeley, CO

Richard Sgarlotti, Hannaville Indian School, Wilson, MI

Session 347

General **Special Needs** **Edward CD**
Improving Mathematics Education for Students with Special Needs

Is your school district grappling with how to improve mathematics learning for students with disabilities? Share your strategies and challenges with mathematics leaders from other districts. Discuss common themes and gain new perspectives and resources on ways to address this pressing need. Join us!

Fred Gross, Education Development Center, Inc., Newton, MA

Amy Brodesky, Education Development Center, Inc., Newton, MA

Emily Fagan, Education Development Center, Inc., Newton, MA

Wednesday 2:45–4:00 (continued)

Session 348

General Networking for Consultants Madeleine AB
Educational Consultants: A Networking Opportunity

Join our discussion to share expertise and strategies. Hear from others as to how they got started and marketing techniques they may have used. This is our time to gain from our collective knowledge and support our work. Come and join the discussion.

Kit Norris, NCSM Position Papers Editor,
Southborough, MA

Session 349

General Coaching Mohsen
Mathematics Content Coaching

Coaching in the mathematics content area continues to spread to schools and districts in the United States. Although the term math coach is often used, the roles, duties, and vision for the position vary greatly. We welcome interested participants the opportunity to share findings, exchange knowledge, and explore challenges.

David Foster, Silicon Valley Mathematics Initiative,
Morgan Hill, CA

Session 350

General Charter Schools Annie
Lessons Learned from Experiments in Mathematics Education in Our Charter Schools

One purpose of Charter Schools is to create incubators where new ideas are implemented and lessons learned shared. We welcome teachers, administrators, and others to share how they have worked to improve student achievement and to consider how to partner with organizations like NCSM in sharing results with the education community.

Louis Tamler, City Charter High School, Pittsburgh, PA

Session 351

General CLIME Windsor BC
Math 2.0: A New Vision for Using Dynamic Math Software with Web 2.0 Tools

The Internet, Web 2.0, and dynamic math software make possible new venues for teaching and learning math that incorporate powerful ways of collaborating, exploring, and sharing of ideas. This session will highlight some examples of how this next generation of math education is happening now.

Ihor Charischak, Council for Technology in Math Education (CLIME), White Plains, NY

David Weksler, Council for Technology in Math Education (CLIME), Tenafly, NJ



Session 352

General AMTE Elizabeth G
Association of Mathematics Teacher Educators (AMTE)

AMTE's focus is on the improvement of mathematics teacher education. Join us in this session for a discussion of important and timely topics of mutual interest, such as mathematics specialists in the elementary grades, teacher preparation policies and practices, and K-12 mathematics education leadership development.

Nadine Bezuk, San Diego State University, San Diego, CA
Barbara Reys, University of Missouri, Columbia, MO

Session 353

General Emerging Leaders Randle A
Emerging Leaders: Focus Question/Answer Time

After a day of learning about how to transform into a PRIME Leader, this session will allow for an open discussion regarding the "how to." Collaborate with other new mathematics leaders to create a network of support."

Mona Toncheff, Phoenix Union High School District,
Phoenix, AZ

Wednesday 2:45–4:00 (continued)

Session 354

General Lesson Study Networking Randle B

Lesson Study Networking: An Opportunity for Practitioners, Researchers, and Leaders to Share Lesson Study Resources, Findings and Questions

Lesson study is growing rapidly in the U.S., yet most teams have few opportunities to share work with others. This SIG is a chance to meet and identify common interests and challenges. Share resources: bring a poster, lesson plan, research question, etc. Those new to lesson study are welcome.

Jane Gorman, Education Development Center, Inc.,
Dorchester, MA

Session 355

General Math Contests Randle E

Math Contests Build Better Students—and Teachers

Good contests offer a four-pronged approach: rich problems that deepen mathematical thinking and improve high-stakes test scores, a monthly series of contests that build and reinforce student (and teacher!) interest and knowledge, an inclusive structure that welcomes many students, and multiple strategies for many problems that foster creativity.

Richard Kalman, Executive Director, Mathematical Olympiads for Elementary and Middle Schools (MOEMS),
Wantagh, NY

Session 356

General Promising Creative Students Randle D

Nurturing Mathematically Promising and Creative Students

Research shows that our most promising mathematics students frequently make the least academic progress. Come join us for diverse and active roundtables on research, curriculum, the “Common Core State Standards”, and NCTM’s new book, “The Peak in the Middle”. Together we can make a difference for these promising students.

Linda Sheffield, Northern Kentucky University - Emeritus,
Ft. Thomas, KY

M. Katherine Gavin, University of Connecticut, Avon, CT