

Program Summary Information for Monday, April 19, 2010

See page 5 for Conference Strand descriptions.

Monday Summary

6:45–7:30: Continental Breakfast (no ticket required), compliments of MIND Research Institute, Douglas CD Foyer 7:30–8:00: Session 101, Opening Session, Nancy Giberson, Douglas CD 8:00–9:00: Session 102, Keynote Address, Mike Schmokey, Douglas CD						
9:30	Annie (3)	Edward CD (2)	Elizabeth AB (2)	Elizabeth F (2)	Elizabeth G (2)	Elizabeth H (2)
	Session 112: It's About Time Sponsor Showcase General Kearns, It's About Time to Level the Playing Field: Low Performing Students Can Succeed!	Session 106 Primary (PK–2), Strand Griffin, Assessing Mathematical Understanding: Using One-on-One Mathematics Interviews with K-2 Students	Session 105 General, Strand 6 Fennell, Sammons, Wray, Kobett, Elementary Math Specialists: An Update and Challenges	Session 104 General, Strand 5 Leak, What's It All About? An Orientation for Those New to the NCSM Annual Conference	Session 113 General, Strand 1 Parker, Mesple, Breaking the Cycle of Failure in Mathematics	Session 117 Secondary (9–12), Strand 1 Gilliam, Lahey, Teaming Students in Accessing Algebra
10:30					Numbers in parentheses beside room names indicate floor levels.	
10:45	Session 129: MIND Research Institute Sponsor Showcase General Peterson, Automaticity WITH Understanding	Session 126 Middle (6–8), Strand 6 Small, Coaching to Build Thoughtful Instructional Decision Making	Session 125 Primary (PK–2), Strand 1 Clements, Fuson, Ginsburg, Beckmann, Report of the National Research Council's (NRC) Committee on Mathematics in Early Childhood	Session 121 General, Strand 5 Bradshy, Cummins, Frye, Gojak, Greenes, Leinwand, Rowan, Strong, The Ross Taylor Past Presidents Mentoring and Sharing Session for Mathematics Leaders		
11:45	11:30: Session 119, Box Lunch (ticket required 11:30–12:45; waiting line, first come first served 12:45–1:00), sponsored by Didax, Elizabeth CDE					
12:00					Session 130 General, Strand 2 Hamada, The Power of Articulation Through a Mathematics Vertical Team	Session 131 General, Strand 1 Brown, Miller, "Charting a Course to Equity and Access" Through Teaching Teachers to Teach Students HOW to Solve Mathematics Problems
12:15	Session 145: Key Curriculum Press Sponsor Showcase Pre-K to College Coe, Ignite NCSM! Ten Speakers Light up the Room with Fresh Ideas in Mathematics	Session 143 Secondary (9–12), Strand 3 Cuoco, Kerins, Using Computer Algebra Systems Effectively in the High School Classroom	Session 139 General, Strand 2 Usiskin, The Shape of Geometry and the Geometry of Shape	Session 137 General, Strand 4 Norris, Mitchell, Assessment Leadership Through the Lens of PRIME		
1:15						
1:30	Session 155: Houghton Mifflin Harcourt Sponsor Showcase Grades K–8 Kanter, Clark, Singapore Math for the US Classroom	Session 148 General, Strand 3 Bunt, Murawski, Preparing Teacher Leaders to Facilitate Professional Learning Communities	Session 149 General, Strand 1 Seeley, When Good Intentions Fall Short	Session 153 Primary (PK–2), Strand 2 Richardson, Berridge, Euretig, Porras, Success in Mathematics Starts at PK		
2:00						
2:30						
11:00: Sponsor Display Open						

Monday Summary

2:45	Annie (3)	Edward CD (2)	Elizabeth AB (2)	Elizabeth F (2)	Elizabeth G (2)	Elizabeth H (2)
	<p>Session 165: CASIO America, Inc. Sponsor Showcase Grades 9–12 Neuse, CASIO Technology at Work—Building 21st Century Skills</p>	<p>Session 157 General, Strand 3 Cochran, Economopoulos, Computational Fluency in Subtraction: What Does It Look Like?</p>	<p>Session 162 Middle (6–8), Strand 1 Foresman, Successful Strategies for Intervention Students</p>	<p>Session 161 Middle (6–8), Strand 2 Phillips, Lappan, Planning to Teach—Unpacking the Mathematics in a Problem-centered Curricula</p>	<p>Session 166 General, Strand 6 West, Cameron, Essential Practices for Coaches That Get Results</p>	<p>Session 170 Primary (PK–2), Strand 3 Phillipp, Jacobs, Lamb, Siegfried, Using Video and Student Work Focused on Children’s Thinking to Help Professional Developers Support K-3 Teachers in Transforming Their Teaching</p>
3:45						
4:00		<p>Session 173 General, Strand 6 Shaneyfelt, Math Coach Support for Teachers of Struggling Math Learners</p>	<p>Session 179 Secondary (9–12), Strand 1 Greenes, Malian, Toolson, Cavanagh, PRIME the PIPELINE Project: Updating Teachers and Preparing STEM Students</p>	<p>Session 176 Intermediate (3–5), Strand 3 Davis, Usnick, Spinno, Schmit, Communication and Problem Solving Using Lesson Studies</p>		
4:45						
5:00						

Sponsor Display Area Open

5:15–6:45: Session 181, NCSM Regional Leadership Team Meeting (by invitation only), Elizabeth F

Monday Summary

6:45–7:30: Continental Breakfast (no ticket required), compliments of MIND Research Institute, Douglas CD Foyer

7:30–8:00: Session 101, Opening Session, Nancy Giberson, Douglas CD

8:00–9:00: Session 102, Keynote Address, Mike Schmoker, Douglas CD

	Emma (3)	Madeleine AB (3)	Manchester GHI (2)	Mohsen (3)	Molly AB (2)
9:30	<p>Session 111: Agile Mind Technology Showcase Grades 6–12 Cook, Hull, Using Technology for Student Success in 6-12 Mathematics</p>	<p>Session 107 Middle (6–8), Strand 1 Woodward, Jitendra, Star, <i>The Challenge of Teaching Proportional Thinking to All Students in the Context of High Stakes Testing</i></p>	<p>Session 103: Major Session General Davenport, <i>What Does It Take to Move a District? Lessons from Working to Strengthen Mathematics Teaching and Learning in Boston</i></p>	<p>Session 109 Middle (6–8), Strand 6 Alejandro, Hogan, Miller, Delaney, <i>Developing Leadership in Our Mathematics Community: An Effective Model to Identify and Support Teacher Leaders</i></p>	<p>Session 108 Middle (6–8), Strand 3 Burrill, <i>Research, Algebra and Technology: Helping Teachers Shape Their Practice to Enable Learning</i></p>
10:30					
10:45	<p>Session 128: Didax Technology Showcase K–3 Hanson, Richardson, <i>Improve Student Performance with Kathy Richardson's K-3 Formative Assessment</i></p>	<p>Session 124 General, Strand 6 Tinto, Zarach, <i>Math Instructional Support Teachers: Key to Improving Teacher Practice and Student Learning</i></p>	<p>Session 120: Major General Weissglass, <i>How Many Sides Does a Box Have? The Struggle to Respect Young People's Thinking</i></p>	<p>Session 127 Secondary (9–12), Strand 3 Cheng, <i>Using Collaborative Inquiry with Student Teachers to Support Algebra Achievement</i></p>	<p>Session 122 General, Strand 3 Hull, Balka, Harbin Miles, <i>Overcoming Resistance to Change: Strategies for Leaders</i></p>
11:45					
12:00					
12:15	<p>Session 144: Texas Instruments Technology Showcase Grades 7–12 Veater, Gillespie, <i>Ti's Interactive Math Classroom Fresno Site—Year Two Report and Hands-On Demonstration Lab</i></p>	<p>Session 142 Intermediate (3–5), Strand 3 Mead, <i>Teaching (and Learning!) Mathematics Through Problem Solving: A Model for Online Professional Development</i></p>	<p>Session 136: Major Session General Kanold, <i>The Axioms of PRIME Leadership: Powerful Strategies for Your Leadership Journey!</i></p>	<p>Session 141 General, Strand 6 Girard, <i>Linking Best Mentoring Practices and Providing Online Support for Beginning Teachers to Facilitate Transfer of Pedagogical Theory to Practice</i></p>	<p>Session 138 General, Strand 4 Bohan, <i>Using Multiple Data Tools for School Improvement Planning</i></p>
1:15					
1:30	<p>Session 154: Encyclopedia Britannica Technology Showcase K–8 Ridgway, Williams, <i>Practice SMART! Assess SMART! Differentiate SMART! Britannica SmartMath!</i></p>	<p>Session 151 General, Strand 6 Fonzi, Callard, <i>Mathematics Education Needs Transformational Leaders—Do Our Teacher Leadership Programs Develop Transformational Leaders?</i></p>	<p>Session 146: Major Session General Briers, <i>High-Leverage Actions for Mathematics Education Leaders</i></p>	<p>Session 152 General, Strand 4 Huinker, Kranendonk, <i>Evolution of a Continuum of Mathematics Leadership: Charting the Course to Formative Assessment Practices in a Large Urban District</i></p>	<p>Session 147 General, Strand 6 Sulton, Heidema, Mitchell, <i>Examining Coaching in Elementary (K-8) Mathematics Classrooms</i></p>
2:00					
2:30					

Numbers in parentheses beside room names indicate floor levels.

11:00: Sponsor Display Area Open

11:30: Session 119, Box Lunch (ticket required 11:30–12:45; waiting line, first come first served 12:45–1:00), sponsored by Didax, Elizabeth CDE

Monday Summary

Emma (3)	Madeleine AB (3)	Manchester GHI (2)	Mohsen (3)	Molly AB (2)
<p>Session 164: Math Solutions Technology Showcase K-8 Hidalgo, Felix, Freeman, <i>Introducing ePDTM Coaching</i></p>	<p>Session 158 General, Strand 6 Sanders, Restivo, Murray, Killian, The C.I.A.'s <i>of Coaching: Come Investigate...</i></p>	<p>Session 156: Major General Jackson, Strategic <i>Leadership: How School Boards and Mathematics Departments Connect on a Real Level</i></p>	<p>Session 159 General, Strand 2 Clark, Lessons from Singapore: The Professional Development Required to Implement a World Class Curriculum</p>	<p>Session 160 Intermediate (3-5), Strand 3 Nelson, Reed, Leadership <i>Content Knowledge for Mathematics: How It Affects Elementary and Middle School Principals Classroom Observation and Teacher Supervision</i></p>
<p>Session 180: Key Curriculum Press Technology Showcase Grades 3-8 Greenhaus, Sketchpad <i>and Elementary Math—The Key to Improving Student Learning and Engagement</i></p>	<p>Session 175 General, Strand 5 Toncheff, Heikkinen, <i>Curriculum Leadership with PRIME: Is Your Curriculum Meaningful and Relevant?</i></p>	<p>Session 172: Major Session General Foster, Student Focused <i>Assessment Cycle</i></p>	<p>Session 177 Middle (6-8), Strand 3 Milou, Strategies for <i>Ending the Debate Between Conceptual Understanding and Basic Skills</i></p>	<p>Session 178 Secondary (9-12), Strand 3 King, Bannister, Using <i>Video Clubs as a Vehicle to Link Instruction and Student Learning</i></p>

Sponsor Display Area Open

5:15-6:45: Session 181, NCSM Regional Leadership Team Meeting (by invitation only), Elizabeth F

2:45

3:45

4:00

5:00

Monday Summary

	Randle A (4)	Randle B (4)	Randle D (4)	Randle E (4)	Windsor AB (4)
2:45	<p>Session 167 General, Strand 6 Kise, Differentiated Coaching: Helping Teachers Change Beliefs and Practices</p>	<p>Session 171 Middle (6–8), Strand 4 Gummer, Gates, Fantz, Formative Assessment and Feedback: Teacher Practices and Experiences</p>	<p>Session 169 General, Strand 6 Lavelle, Gates, Facilitating Professional Learning: Three Models of Practice</p>	<p>Session 168 General, Strand 2 Weissglass, Increasing Our Capacity to Lead for Equity in Mathematics Education</p>	<p>Session 163 Middle (6–8), Strand 4 Olson, Olson, Gilbert, Gilbert, Professional Development Strategies to Implement Formative Assessment in Networked Classrooms</p>
3:45					
4:00					
4:45					
5:00					<p>Session 174 General, Strand 6 Gianneschi, Collar, Echols, Differentiating Professional Development for Coaches and Teacher Leaders</p>

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5:15–6:45: Session 181, NCSM Regional Leadership Team Meeting (by invitation only), Elizabeth F

Monday Sessions by Strand

Strand 1. Charting a Course to Equity and Access		
107	Madeleine AB	9:30–10:30
113	Elizabeth G	9:30–11:30
117	Elizabeth H	9:30–11:30
123	Windsor BC	10:45–11:45
125	Elizabeth AB	10:45–11:45
131	Elizabeth H	12:00–2:00
132	Randle E	12:00–2:00
135	Randle D	12:00–2:00
149	Elizabeth AB	1:30–2:30
162	Elizabeth AB	2:45–3:45
179	Elizabeth AB	4:00–5:00

Strand 2. Charting a Course to Curriculum Leadership		
130	Elizabeth G	12:00–2:00
139	Elizabeth AB	12:15–1:15
153	Elizabeth F	1:30–2:30
159	Mohsen	2:45–3:45
161	Elizabeth F	2:45–3:45
168	Randle E	2:45–4:45

Strand 3. Charting a Course to Teaching and Learning Leadership		
108	Molly AB	9:30–10:30
110	Windsor BC	9:30–10:30
116	Randle E	9:30–11:30
122	Molly AB	10:45–11:45
127	Mohsen	10:45–11:45
133	Randle A	12:00–2:00
142	Madeleine AB	12:15–1:15
143	Edward CD	12:15–1:15
148	Edward CD	1:30–2:30
157	Edward CD	2:45–3:45
160	Molly AB	2:45–3:45
170	Elizabeth H	2:45–4:45
176	Elizabeth F	4:00–5:00
177	Mohsen	4:00–5:00
178	Molly AB	4:00–5:00

Strand 4. Charting a Course to Assessment Leadership		
106	Edward CD	9:30–10:30
114	Randle A	9:30–11:30
134	Randle B	12:00–2:00
137	Elizabeth F	12:15–1:15
138	Molly AB	12:15–1:15
152	Mohsen	1:30–2:30
163	Windsor BC	2:45–3:45
171	Randle B	2:45–4:45

Strand 5. Putting PRIME into Practice		
104	Elizabeth F	9:30–10:30
121	Elizabeth F	10:45–11:45
175	Madeleine AB	4:00–5:00

Strand 6. Developing Coaches – Developing Teachers		
105	Elizabeth AB	9:30–10:30
109	Mohsen	9:30–10:30
115	Randle D	9:30–11:30
118	Randle B	9:30–11:30
124	Madeleine AB	10:45–11:45
126	Edward CD	10:45–11:45
140	Windsor BC	12:15–1:15
141	Mohsen	12:15–1:15
147	Molly AB	1:30–2:30
150	Windsor BC	1:30–2:30
151	Madeleine AB	1:30–2:30
158	Madeleine AB	2:45–3:45
166	Elizabeth G	2:45–4:45
167	Randle A	2:45–4:45
169	Randle D	2:45–4:45
173	Edward CD	4:00–5:00
174	Windsor BC	4:00–5:00

Opening Session (7:30–8:00)

Session 101 **Douglas CD**
Welcome to the 42nd NCSM Annual Conference



Diane J. Briars,
NCSM President,
Pittsburgh, PA



Terri K. Belcher,
NCSM Executive
Director,
Emeryville, CA



Linda Fulmore,
NCSM First Vice
President and
Program Chair,
Cave Creek, AZ



Nancy Giberson, Assistant Superintendent, Learning Resources and Educational Technology Division, San Diego County Office of Education, San Diego, CA

Nancy Giberson is responsible for curriculum, professional development, and leadership services for the 42 San Diego County school districts, representing

about 500,000 students. She has proactively assisted in establishing partnerships with businesses, community groups, institutions of higher education and appropriate staff at the California Department of Education in support of professional development of teachers and administrators important to San Diego County and education statewide.

Nancy is past principal of Torrey Pines High School, with a teaching background in high school biology and chemistry. She received postdoctoral training as a visiting practitioner at Harvard University and a Fellow at Massachusetts Institute of Technology's Sloan School of Management.

Additionally she is the recipient of the Sustainable Quality Award for implementing Baldrige Education Criteria for performance excellence in countywide school management teams, along with a variety of Administrator of the Year and Outstanding Leadership awards.

Keynote Address (8:00–9:00)

Session 102 **Douglas CD**
The Opportunity: From “Brutal Facts” to the Best Schools We’ve Ever Had

Mike Schmoker, Author, Researcher, Tempe, AZ

Presenter: Linda Fulmore, NCSM 1st Vice-President, Cave Creek, AZ

A true renaissance could occur in our schools starting immediately. It will begin with an encounter with what Jim Collins calls the “brutal facts”—those practices which educators know are important but which have yet to occur in classrooms. We will realize historic improvements in teaching and learning the moment we choose to implement the most basic, agreed-upon practices and leadership structures supported by researchers from every camp.



Dr. Mike Schmoker is a former administrator, English teacher and football coach. He has written four books and dozens of articles for educational journals, newspapers and for TIME magazine.

His most recent book is *RESULTS NOW: How We Can Achieve Unprecedented*

Improvements in Teaching and Learning, which was selected as a finalist for “book of the year” by the Association of Education Publishers. His previous bestseller, *RESULTS: the Key to Continuous School Improvement*, is one of the most widely used books by school leaders in the United States.

Dr. Schmoker has keynoted at dozens of state and national educational events and has consulted for school districts and state departments throughout the US and Canada. He now lives in Tempe, Arizona with his wife and two daughters.

Turn in event tickets you do not plan to use at the Registration Desk in Elizabeth Foyer.

Monday 9:30–10:30

Session 103: Major Session

General

Manchester GHI

What Does It Take to Move a District? Lessons from Working to Strengthen Mathematics Teaching and Learning in Boston

Linda Davenport, NCSM Journal Editor, Senior Program Director of Elementary Mathematics, Boston Public Schools, West Roxbury, MA

Presider: Richard Seitz, NCSM Western 1 Regional Director, Helena, MT

This session focuses on the successes and challenges associated with a district-wide Math Plan put in place in the fall of 2000. It includes a discussion of the adoption of standards-based elementary math curriculum materials, the creation of a cohesive program of professional development and support, the institutionalization of district-wide formative assessments, and the cultivation of leadership among teachers and administrators. What were we able to achieve? What were the unexpected challenges and how did we address them? What has it taken to sustain this effort over years? Come and hear our stories and consider whether there are lessons here for your own work in districts.



Linda Ruiz Davenport has been the Senior Program Director of Elementary Mathematics for the Boston Public Schools since September of 2000 where she oversees the Elementary Math Plan that includes the adoption of a standards-based mathematics

curriculum, a cohesive program of professional development for teachers and principals, school-based support from math coaches, and a system of formative assessments. Prior to that, Davenport directed several projects at Education Development Center, was an assistant professor of mathematics education at Portland State University in Portland, Oregon, and was a junior high and high school math teacher in Austin, Texas. She is currently a member of the Urban Math Leadership Network, serves on the Massachusetts Department of Education Math/Science Advisory Council, chairs the National Council of Teachers of Mathematics Emerging Issues Committee, and edits the Mathematics Education Leadership, the journal of the National Council of Supervisors of Mathematics.

Session 104

General

Strand 5

Elizabeth F

What's It All About? An Orientation for Those New to the NCSM Annual Conference

This session is for those who are new to NCSM Conferencing. Participants will network with others, overview the structure of the conference, explore the different conference options, set personal priorities and goals, and work on a personal plan of what to do and where to go during the sessions.

Donna Simpson Leak, NCSM Awards Chair, Rich Township High School District #227, Olympia Fields, IL

Session 105

General

Strand 6

Elizabeth AB

Elementary Math Specialists: An Update and Challenges

What are the challenges facing Elementary Mathematics Specialists and coaches? This session will review certification efforts, professional development needs, leadership challenges, and research regarding the impact of specialists/coaches. Promising programs will also be highlighted. The session will also acquaint participants with the Elementary Mathematics Specialist and Teacher Leaders Project (EMS&TL).

Francis (Skip) Fennell, McDaniel College, Westminster, MD

Kay Sammons, Howard County Public School System, Columbia, MD

John Wray, Howard County (MD) Public Schools, Hunt Valley, MD

Beth Kobett, Stevenson University, Eldersburg, MD

Session 106

Primary (PK–2)

Strand 4

Edward CD

Assessing Mathematical Understanding: Using One-on-One Mathematics Interviews with K-2 Students

High-quality mathematics experiences in the primary grades build a strong foundation for future learning. In this session we will share useful assessment tasks along with video clips of K-2 students that help teachers understand what to ask and what to look for when assessing their students.

Linda Griffin, Education Northwest, West Linn, OR

Submit an article for the NCSM Newsletter or Journal. See page 79 for details.

Monday 9:30–10:30 (continued)

Session 107
Middle (6–8) **Strand 1** **Madeleine AB**
The Challenge of Teaching Proportional Thinking to All Students in the Context of High Stakes Testing

This session focuses on proportional thinking at the middle grades. Students were taught the topic using a schema based instruction approach, which emphasized self-monitoring, problem solving strategies, and visual representations. Results of the study varied across ability groups. Implications for instruction in light of tracking and AYP (Adequate Yearly Progress) requirements will be discussed.

John Woodward, University of Puget Sound, Gig Harbor, WA

Asha Jitendra, University of Minnesota, Minneapolis, MN

Jon Star, Harvard Graduate School of Education, Cambridge, MA

Session 108
Middle (6–8) **Strand 3** **Molly AB**
Research, Algebra and Technology: Helping Teachers Shape Their Practice to Enable Learning

Research about teaching and learning algebra offers suggestions that we have not incorporated into the way we design curriculum and help teachers think about instruction in their algebra classes. New tools and ways of thinking based on this research have the potential to make a difference in what students learn.

Gail Burrill, Michigan State University, Hales Corners, WI

Session 109
Middle (6–8) **Strand 6** **Mohsen**
Developing Leadership in Our Mathematics Community: An Effective Model to Identify and Support Teacher Leaders

Examine a model of professional development from the Math Forum @ Drexel that provides opportunities for teachers to build their understanding of mathematical concepts, explore ways to create similar experiences for students, and learn more about resources and support enabling them to become and thrive as leaders in this community.

Suzanne Alejandre, Drexel University/The Math Forum, Morton, PA

Marie Hogan, Traweek Middle School, West Covina, CA

Ashley Miller, China Grove Middle School, Salisbury, NC

Barbara Delaney, Bellingham Memorial Middle School, Bellingham, MA

Session 110
Secondary (9–12) **Strand 3** **Windsor BC**
Administrators and Teachers Learning Collaboratively for High Quality Instruction: One High School's Story of Transformation

In this session, we will share the story of how a group of high school mathematics teachers worked collaboratively with administrators to implement high quality instruction in their mathematics classrooms in order to support student learning. Conversation tools, strategies, and episodes of practice will be shared.

Janice Bradley, New Mexico State University, Las Cruces, NM

Kathe Kanim, New Mexico State University, Las Cruces, NM

Tanya Larkin, Principal, Pampa, TX

Tanya Quisenberry, Mathematics Department Chair, Pampa, TX

Session 111: Agile Mind Technology Showcase

Grades 6–12 **Emma**
Using Technology for Student Success in 6-12 Mathematics

Kathi Cook, Charles A. Dana Center, University of Texas at Austin, Austin, TX

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

The Dana Center and Agile Mind have partnered to develop an online teaching tool that allows teachers to guide students through interactive experiences in mathematics while delivering rigorous course content and addressing issues of student motivation and engagement. Participants will experience the tool through hands-on activities.

Session 112: It's About Time Sponsor Showcase

General **Annie**
It's About Time to Level the Playing Field: Low Performing Students Can Succeed!

James Kearns, It's About Time, Armonk, NY

This workshop will look at how two districts, one urban and the other suburban, had great success in improving test results for at-risk students. Participants will participate in an activity that incorporates a standards based activity from Math Connections, student-centered pedagogy, and the technology tools (SmartBoard, TI Handheld and Autograph) to help these students succeed.

Monday 9:30–11:30 (Double)

Session 113

General

Strand 1

Elizabeth G

Breaking the Cycle of Failure in Mathematics

For 12 full days, 25 high school students with long histories of failure learned mathematics alongside their two math teachers in a course designed for K-20 math teachers. Hear their stories of overcoming fears and failures, as they learned together what it means to know and use mathematics powerfully.

Ruth Parker, Mathematics Education Collaborative, Ferndale, WA

Lisa Mesplé, Mathematics Education Collaborative, Berthoud, CO

Session 114

General

Strand 4

Randle A

Professional Development Experiences That Support Informed Assessment Design and Improved Formative Assessment Practices

Teachers rarely have opportunities to engage in assessment design, even though classroom assessment is fundamental to effective teaching. In this interactive session, participants will engage in several assessment-related professional development activities that were used to elicit a broader range of student reasoning and to increase opportunities for formative assessment.

David Webb, Univ. of Colorado at Boulder, Louisville, CO

Session 115

General

Strand 6

Randle D

Charting a Course with Professional Learning: Coaching to Promote Mathematics Education Leaders

Why is coaching an emerging PD (Professional Development) strategy? What are characteristics of exemplary coaching initiatives? Examine data regarding the relationship between school-based coaching and student achievement and lessons learned from six years of action research. Join us to explore coaching as transformative professional learning for mathematics education leaders.

Nan Dempsey, Upstate S2MART CENTER, Spartanburg, SC

Session 116

Intermediate (3–5)

Strand 3

Randle E

Every Student, Every Day—Developing the Knowledge and Skills to Ensure High Quality Core Instruction

One of the key ingredients to success with Response to Intervention in mathematics is a strong core program where teachers use instructional practices that meet the needs of a diverse group of students. This session provides professional development models school that district leaders can use to strengthen instruction in their core programs.

Kathleen Pitvorec, University of Illinois, Chicago, IL

Jan Haake, Benedictine University, Naperville, IL

Session 117

Secondary (9–12)

Strand 1

Elizabeth H

Teaming to Support Special Needs Students in Accessing Algebra

Much can be learned when a high school mathematics teacher and a special education teacher combine their classrooms to teach Algebra. Through the use of video and the lenses of both teachers, we will explore the approaches taken to enable all students to have access to Algebra.

Sandie Gilliam, NCSM 2nd Vice President, Colorado College, Colorado Springs, CO

Jennifer Lahey, San Lorenzo Valley USD, Aptos, CA

Session 118

Secondary (9–12)

Strand 6

Randle B

Improving Quality of Teaching in Algebra 2 and Precalculus Using Technology

Graphing calculators and online learning environments can be used to improve the quality of teaching Algebra 2 and Pre-Calculus. A variety of smart ways of using technology to enhance the teaching experience in K9-12 classrooms will be elaborated.

Rusen Meylani, Arizona State University, Scottsdale, AZ

Gary Bitter, Arizona State University, Tempe, AZ

Alpay Bicer, Arizona State University, Tempe, AZ

Monday 10:45–11:45

Session 120: Major Session

General

Manchester GHI

How Many Sides Does a Box Have? The Struggle to Respect Young People's Thinking

Julian Weissglass, Professor of Education, Emeritus, Graduate School of Education, University of California Santa Barbara, Santa Barbara, CA

Presider: Sara Munshin, NCSM Western 2 Regional Director, Los Angeles, CA

For over 100 years educators have argued about how to teach math. This talk will explain why this struggle is important, how it relates to quality and equity in mathematics education, and some principles that might be useful in developing a strategy for winning this struggle.



Julian Weissglass received his Ph.D. in mathematics from the University of Wisconsin, Madison and was a member of the UCSB Mathematics Department for over 30 years. He has taught mathematics to elementary classes, written about education and educational change and spoken and

led workshops on learning and educational change in the U.S., Europe, Australia, and Mexico. His early career was focused on mathematics research. Over the years, his research interests changed from mathematics to mathematics education to educational change and educational equity. He teaches and does professional development on racism, multicultural education, and educational equity. He also teaches about the Holocaust and has led workshops on Healing from World War 2 in Europe. He is Professor of Education Emeritus at the University of California, Santa Barbara.

Session 121

General

Strand 5

Elizabeth F

The Ross Taylor Past Presidents Mentoring and Sharing Session for Mathematics Leaders

There is a wealth of information and knowledge available to you!! Bring your questions, problems, concerns and challenges. Get suggestions and discuss the issues with your Past Presidents and colleagues.

Larry Bradsby, NCSM President 1989–1991

Jerry Cummins, NCSM President 1999–2001

Shirley Frye, NCSM President 1981–1983

Linda Gojak, NCSM President 2005–2007

Carol Greenes, NCSM President 2001–2003

Steve Leinwand, NCSM President 1995–1997

Tom Rowan, NCSM President 1979–1981

Dorothy Strong, NCSM President 1977–1979

Session 122

General

Strand 3

Molly AB

Overcoming Resistance to Change: Strategies for Leaders

Overcoming resistance to change is a major factor in forging effective mathematics program, yet it is rarely discussed. Mathematics coaches and leaders often feel their efforts at improving instruction are being blocked or thwarted. This session provides insights on resistance and strategies that transform classrooms so all students are successful.

Ted Hull, LCM: Leadership, Coaching, and Mathematics, Pflugerville, TX

Don Balka, LCM: Leadership, Coaching, and Mathematics, LaPaz, IN

Ruth Harbin Miles, NCSM Membership & Marketing Chair, LCM: Leadership, Coaching, and Mathematics, Madison, VA

Session 123

General

Strand 1

Windsor BC

Working Together: Mathematics and Special Education

How do professional development opportunities geared towards special education teachers that teach mathematics help to increase student performance? This session will address collaboration, teaching strategies, delivering mathematic concepts, preparing students to take assessments, and using technology in a variety of special education settings.

Diane Andreana, Buffalo City Schools, Tonawanda, NY

Rebecca Pordum, Buffalo City Schools, Derby, NY

Robin Edmonds, Buffalo City Schools, Tonawanda, NY

Session 124

General

Strand 6

Madeleine AB

Math Instructional Support Teachers: Key to Improving Teacher Practice and Student Learning

In an urban high-needs district the Math-IST (Instructional Support Teacher) role was created, supporting teachers' implementation of new curriculum and state assessments. Within three years, success was documented by the growth of teachers' knowledge for teaching mathematics and student assessment gains. Data on six years of Math-IST's work in schools will be shared.

Patricia Tinto, Syracuse University, Syracuse, NY

Nancy Zarach, Syracuse City School District, Syracuse, NY

Monday 10:45–11:45 (continued)

Session 125

Primary (PK–2) Strand 1 Elizabeth AB

Report of the National Research Council's (NRC) Committee on Mathematics in Early Childhood: Paths to Equity, Access, and Excellence

The National Research Council recently completed a study of early childhood math, synthesizing and analyzing research from a number of disciplinary fields. Authors of the report will draw implications for leadership, policy, and practice that will help all children, especially vulnerable children, get a strong start in learning math.

Douglas Clements, University at Buffalo, SUNY, Williamsville, NY

Karen Fuson, Self-employed, Fallbrook, CA

Herb Ginsburg, Columbia Teachers College, New York, NY

Sybilla Beckmann, University of Georgia, Athens, GA

Session 126

Middle (6–8) Strand 6 Edward CD

Coaching to Build Thoughtful Instructional Decision Making

Participants will see how coaches have helped teachers to bring mathematically appropriate focus to a lesson, to choose the right questions to ask, and to support student differences. The goal is to help teachers see how these decisions affected their students' beliefs about math and their students' ultimate success.

Marian Small, University of New Brunswick, Ottawa, ON, Canada

Session 127

Secondary (9–12) Strand 3 Mohsen

Using Collaborative Inquiry with Student Teachers to Support Algebra Achievement

This session presents findings and sample activities from an innovative approach to professional development, using student teachers. Through daily collaboration, a team of veteran and student teachers learned how to get through to their students, rather than simply getting through a book. As a result, student achievement was positively affected.

Ivan Cheng, California State University Northridge, Reseda, CA

Session 128: Didax Technology Showcase

K–3

Emma

Improve Student Performance with Kathy Richardson's K-3 Formative Assessment

Margo Hanson, Didax, Rowley, MA

Kathy Richardson, Math Perspectives Teacher Development Center, Bellingham, WA

Learn more about the power of early assessment and how it can impact instruction to improve student learning. Participants will get hands-on experience administering AMC Anywhere, the technology component of Richardson's Assessing Math Concepts, and they will also learn how to use assessment data to impact their instruction for maximum results.

Session 129: MIND Research Institute Sponsor Showcase

General

Annie

Automaticity WITH Understanding

Matthew Peterson, MIND Research Institute, Santa Ana, CA

Recent research on working memory has led MIND Research Institute to develop an innovative approach to building automaticity of basic arithmetic facts using visual representations. This session will describe MIND's new ST Math: Fluency program, the research behind it, and how students can gain automaticity WITH understanding.



Monday 12:00–2:00 (Double)

Session 130

General **Strand 2** **Elizabeth G**
The Power of Articulation Through a Mathematics Vertical Team

What would it take to build a program so strong and inviting that a large percentage—perhaps even every student—could be prepared to successfully complete challenging courses such as Statistics or Calculus before leaving high school? A Mathematics Vertical Team could be your answer! Come and see!

Lori Hamada, Fresno County Office of Education, Fresno, CA

Session 131

General **Strand 1** **Elizabeth H**
“Charting a Course to Equity and Access” Through Teaching Teachers to Teach Students HOW to Solve Mathematics Problems

Experience the pieces of middle school lessons for ALL students including: identification of the intended mathematics, warm ups, problem posing, tasks, neutral questioning, scaffolding the sharing of student work including modeling and technology, differentiating the extensions, reflecting on the learning (both students and teachers). Receive a sample of K–8 lessons.

Cathy Brown, Teachers Inspiring Problem Solvers, Redmond, OR

Winnie Miller, Teachers Inspiring Problem Solvers, Lake Oswego, OR

Session 132

Primary (PK–2) **Strand 1** **Randle E**
Successful Math Intervention for ELL (English Language Learners), Special Needs, and Other Students: Building Number Power with Formative Assessments, Differentiation, and Concept-building Games

Students who are struggling in mathematics need intervention that includes formative assessments (to identify students’ misconceptions and gaps in knowledge allowing teachers to know what to teach), differentiation (to encourage teachers to address students’ specific learning needs), and specific concept-building games (to motivate students to engage in math learning).

Jennifer Taylor-Cox, Montgomery County Public Schools, Severna Park, MD

Session 133

Intermediate (3–5) **Strand 3** **Randle A**
Examining Video of Student Thinking as a Component of Professional Development: Subtraction and Fractions from Second to Seventh Grade

This interactive session will be based on video cases which feature two math topics: number lines to represent subtraction problems and story problems to explore addition and division of fractions. Discussions include what supervisors would want teachers to learn from such video and then examines facilitation moves to support such learning.

Virginia Bastable, Mount Holyoke College, Carlsbad, CA

Deborah Schifter, Education Development Center, Northampton, MA

Session 134

Intermediate (3–5) **Strand 4** **Randle B**
I’ve Assessed ... Now What?

Analyzing assessments and student work guides teachers and instructional leaders to plan next steps for instruction. This session will focus on differentiation and descriptive feedback as practical strategies to link analysis of work to improve instruction. Use these strategies to help guide your teachers to meet the needs of all students.

Leigh Huber, Jefferson County Public Schools, Louisville, KY

Alison McCormick, Jefferson County Public Schools, Louisville, KY

Session 135

Secondary (9–12) **Strand 1** **Randle D**
Literacy Issues in Secondary Mathematics

Participants will be involved in several mathematical activities that emphasize mathematics as a human endeavor. These activities are designed to promote awareness to literacy issues related to mathematics teaching and learning and also to demonstrate concrete ways to involve writing, reading, listening and talking in a secondary mathematics class.

Diane Kinch, Pomona USD, Claremont, CA

Greisy Winicki-Landman, Cal Poly Pomona, Claremont, CA

Nominations for 2011 NCSM Board positions are open. See page 76.

Monday 12:15–1:15

Session 136: Major Session

General

Manchester GHI

The Axioms of PRIME Leadership: Powerful Strategies for Your Leadership Journey!

Timothy Kanold, NCSM Immediate Past President, Leadership Consultant, Chicago, IL

President: Laurie Boswell, NCSM Eastern 1 Regional Director, Monroe, NH

The best leaders not only lead well, but also reflect on their leadership long enough to understand the philosophies that cause them to do so. They can pinpoint the rationale for their actions and decisions with ease. This motivational and humorous session will highlight “lesson learned” axioms in four different categories of leadership: vision and strategy, teamwork and communication, assessment and evaluation, and personal integrity. Thought provoking and challenging, this session will support your leadership journey for mathematics program success regardless of your role or sphere of influence as a mathematics education leader today.



Tim Kanold is the immediate Past President for NCSM and currently serves the NCSM Board as the Director of the Summer Leadership Academies as well. Tim is the CEO and founder of E²-PLC Learning—a professional development company that serves mostly urban districts.

Previously, Tim served for 21 years as the Director of Mathematics and Science and then as Superintendent of Adlai E. Stevenson High School District 125 in the Chicago area. A motivational and insightful leader, Tim provides practical solutions to the complex issues faced by mathematics education leaders today.

Session 137

General

Strand 4

Elizabeth F

Assessment Leadership Through the Lens of PRIME

This interactive session will provide participants with the opportunity to develop an understanding of the Assessment Principle and the corresponding teacher leadership actions as described in PRIME. The components of effective assessment practices will be discussed as well as how these components work together to build successful practices.

Kit Norris, NCSM Position Papers Editor, Southborough, MA

Suzanne Mitchell, NCSM Southern 2 Regional Director, Arkansas State University, Jacksonville, AR

Session 138

General

Strand 4

Molly AB

Using Multiple Data Tools for School Improvement Planning

This session details the use of 3 data tools available to all Pennsylvania school districts to inform planning of strategies to increase student achievement. In addition, the analysis of these tools will provide a foundation for ongoing benchmark assessment to monitor progress towards school district goals.

Jim Bohan, Lancaster Lebanon IU13, Lancaster, PA

Session 139

General

Strand 2

Elizabeth AB

The Shape of Geometry and the Geometry of Shape

Transformations, coordinate geometry, calculator and computer graphics, and increased attention to applications have all caused, without fanfare, changes in how we look at the shapes of figures. This talk discusses the changes in school geometry in grades 3-12 over the past half century from the standpoint of the concept of shape.

Zalman Usiskin, The University of Chicago, Winnetka, IL

Session 140

General

Strand 6

Windsor BC

A Coaching Model in the Transformation of Math Teachers to Math Teacher Leaders

Mathematics Teaching Specialists use coaching ingredients to transform teachers into Teacher Leaders, who use coaching techniques with their staff while affecting student achievement, teacher learning, and instruction. Participants will learn about a successful model that is used to improve student achievement in an urban district and the overall impact district-wide.

Bernard Rahming, Milwaukee Public Schools, Milwaukee, WI

Pandora Bedford, Milwaukee Public Schools, Milwaukee, WI

Session 141

General

Strand 6

Mohsen

Linking Best Mentoring Practices and Providing Online Support for Beginning Teachers to Facilitate Transfer of Pedagogical Theory to Practice

A mentor/cooperating teacher plays a critical role in beginning or student teachers' development. Strategies in guiding them to effective mathematics teaching and dealing with classroom challenges will be presented. The efficacy of online peer discussion as a means of support and reflection for pre-service and beginning teachers will be discussed.

Nina Girard, University of Pittsburgh at Johnstown, Johnstown, PA

Monday 12:15–1:15 (continued)

Session 142

Intermediate (3–5) Strand 3 Madeleine AB

Teaching (and Learning!) Mathematics Through Problem Solving: A Model for Online Professional Development

Explore the use of online courses to create a community of elementary/middle grades teachers who develop their own content knowledge and use rich problems to teach critical concepts and skills. Readings, math activities, and discussions reinforce the role of problem solving in addressing NCTM's Process Standards.

Claire Mead, The Math Forum @ Drexel, Haverhill, NH

Session 143

Secondary (9–12) Strand 3 Edward CD

Using Computer Algebra Systems Effectively in the High School Classroom

Computer Algebra Systems (CAS) allow students to build computational models of mathematical objects so that they can experiment with mathematical phenomena (polynomials, for example) in ways that would be intractable by hand.

Participants in this session will investigate with examples from the National Science Foundation-funded high school curriculum, CME (Center for Mathematics Education) Project.

Al Cuoco, Education Development Center, Wilmington, MA

Bowen Kerins, Education Development Center, Salem, MA

Session 144: Texas Instruments Technology Showcase

Grades 7-12

Emma

TI's Interactive Math Classroom Fresno Site—Year Two Report and Hands-On Demonstration Lab

Carl Veater, Fresno County Office of Education, Fresno, CA

Jane Gillespie, Fresno Christian Schools, Fresno, CA

Hear the year two report on the Fresno Algebra Nspired lesson center site. Come learn about their successes and get a hands-on experience of TI's Interactive Mathematics Classroom featuring Algebra Nspired.

Session 145: Key Curriculum Press Sponsor Showcase

Pre-K to College

Annie

Ignite NCSM! Ten Speakers Light up the Room with Fresh Ideas in Mathematics

Karen Coe, Key Curriculum Press, Emeryville, CA

Ignite lights up audiences around the world. Speakers share their expertise in five-minute presentations using 20 slides that auto-forward every 15 seconds—ready or not. For a list of speakers and topics, visit the Key display table.

Monday 1:30–2:30

Session 146: Major Session

General

Manchester GHI

High-Leverage Actions for Mathematics Education Leaders

Diane J. Briars, NCSM President, Pittsburgh, PA

President: Donna Karsten, NCSM Canadian Regional Director, Halifax, Nova Scotia, Canada

The professional literature describes numerous “research-based” actions that leaders should implement in their schools or districts to improve the quality of mathematics teaching and increase student achievement. Learn about high-leverage actions (actions that produce the greatest benefits), the research that supports them, and practical suggestions for incorporating them into leadership practice.



Diane Briars is President of NCSM and Co-Director of the Algebra Intensification Project, a joint venture of the Learning Science Research Institute, University of Illinois at Chicago and the Dana Center, University of Texas at Austin. Previously, she was Mathematics Director for the

Pittsburgh Public Schools. She has served as a member of many national committees, including the National Commission on Mathematics and Science Teaching for the 21st Century, headed by Senator John Glenn. A talented and motivational speaker, Diane has served in leadership roles for NCTM, The College Board, and the National Science Foundation.

Session 147

General

Strand 6

Molly AB

Examining Coaching in Elementary (K-8) Mathematics Classrooms

With a growing interest in the use of coaches to improve mathematics instruction in schools, this session will examine different types and depths of knowledge that contribute to successful coaching and will provide a model for professional development to address these multiple knowledge domains.

John Sutton, RMC Research Corporation, Highlands Ranch, CO

Clare Heidema, RMC Research Corporation, Aurora, CO

Arlene Mitchell, RMC Research Corporation, Pine, CO

Monday 1:30–2:30 (continued)

Session 148

General

Strand 3

Edward CD

Preparing Teacher Leaders to Facilitate Professional Learning Communities

Since 2004, the Southwest PA Math Science Partnership has prepared 900 Teacher Leaders who have facilitated learning experiences for 6,600 of their district colleagues. Join the MSP Principal Investigator to discover lessons learned from multi-year Teacher Leadership Academies as described by the LEADS acronym: Learning, Explicitness, Assessment, De-Briefing, and Support.

Nancy Bunt, SW PA Math & Science Collaborative, Pittsburgh, PA

Corinne Murawski, SW PA Math & Science Collaborative, Moon Township, PA

Session 149

General

Strand 1

Elizabeth AB

When Good Intentions Fall Short

Reports show that we are improving in many aspects of PK-12 mathematics. However, improvement efforts seem to continually reach a plateau short of our goals. Gaps in opportunities and student achievement persist. What can we do to get past the plateau and give every student a high quality math education?

Cathy Seeley, Charles A. Dana Center, University of TX, Austin, TX

Session 150

General

Strand 6

Windsor BC

Coaching—More Than Just One Tier

Coaches are professional learning leaders in our schools - but how do they get to that place? The three-tiered model of the development of coaches that is used prepares teachers to become coaches, provides continued professional learning opportunities for current coaches, and utilizes “coaching experts” in the field.

Arlene Rosowski, Buffalo Public Schools, Blasdell, NY

Dr. James Williams, Buffalo Public Schools, Buffalo, NY

Debra Sykes, Buffalo Public Schools, North Tonawanda, NY

Amber Dixon, Buffalo Public Schools, Buffalo, NY

Look for an email next week inviting you to complete the Online Conference Feedback Survey.

Session 151

General

Strand 6

Madeleine AB

Mathematics Education Needs Transformational Leaders—Do Our Teacher Leadership Programs Develop Transformational Leaders?

We studied “what was happening” in our Math Science Partnership sites for the 2 years following NSF (National Science Foundation) funding. We discovered that teacher leaders’ roles and functions had changed. We will share what they told us about how our leadership development program prepared them and what more we could have done.

Judi Fonzi, University of Rochester, Rochester, NY

Cindy Callard, University of Rochester, Fairport, NY

Session 152

General

Strand 4

Mohsen

Evolution of a Continuum of Mathematics Leadership: Charting the Course to Formative Assessment Practices in a Large Urban District

The Milwaukee Public Schools charted a course for leadership via a professional learning continuum for mathematics, focusing on formative assessment. This continuum acknowledged change as a developmental process for schools and the district. As a result, students are making significant mathematics gains and closing achievement gaps on state tests.

DeAnn Huinker, University of Wisconsin-Milwaukee, Milwaukee, WI

Henry Kranendonk, Milwaukee Public Schools, Milwaukee, WI

Session 153

Primary (PK–2)

Strand 2

Elizabeth F

Success in Mathematics Starts at PK

San Diego Unified School District is helping PK teachers learn how to create a supportive learning environment and provide appropriate instruction as they help children make sense of the world of mathematics, with help from the Math Perspectives Teacher Development Center.

Kathy Richardson, Math Perspectives Teacher Development Center, Bellingham, WA

Carol Berridge, San Diego City Schools, San Diego, CA

Mary Euretig, Math Perspectives Teacher Development Center, Sacramento, CA

Gilda Porras, San Diego Unified School District, Imperial Beach, CA

Monday 1:30–2:30 (continued)

Session 154: Encyclopedia Britannica Technology Showcase

K–8

Emma

Practice SMART! Assess SMART! Differentiate SMART! Britannica SmartMath!

Paul Ridgway, Encyclopedia Britannica, Chicago, IL
Trina Williams, Encyclopedia Britannica, Camden, DE

Participants will engage in lively and interactive web-based practice and assessment for elementary students. Move students toward computational fluency while using tools that allow teachers to differentiate, assess, track, and evaluate in real-time. As a result, students will enjoy doing mathematics at home or in the classroom.

Session 155: Houghton Mifflin Harcourt Sponsor Showcase

Grades K–8

Annie

Singapore Math for the US Classroom

Patsy Kanter, Houghton Mifflin Harcourt, Plainfield, IL
Andy Clark, Houghton Mifflin Harcourt, Lake Oswego, OR

Learn how this unique pedagogical approach focusing on depth of understanding, number and number sense, and visualization strategies for problem solving can be used effectively in your school or district.



Monday 2:45–3:45

Session 156: Major Session

General

Manchester GHI

Strategic Leadership: How School Boards and Mathematics Departments Connect on a Real Level

Shelia Jackson, President, Board of Education San Diego Unified School District, San Diego, CA

Presider: **Ralph Connelly**, NCSM Past Canadian Regional Director, St. Catherines, ON, Canada

If mathematics education leaders can connect to the School Board, we can ensure mathematics is protected during budget deficits. This session describes how large urban districts can provide quality mathematics programs during the worst economic crisis our country has ever seen.



Shelia L. Jackson was elected to the Board of Education in November 2004 and re-elected to her seat in November 2008. Ms. Jackson was born and raised in Smithfield, North Carolina, and graduated from Smithfield-Selma Senior High School. After graduation, she joined the U.S. Navy and served for

21 years. During her career in the Navy she rose to the rank of Senior Chief and managed Navy Health clinics on overseas assignments and in the U.S. Always a pioneer in her career, she was the first female Advanced Hospital Corpsman to manage a medical unit on an active duty Navy ship. During her military career, Ms. Jackson earned a Bachelor of Health Science from George Washington University. After her retirement from active duty in 1995, Ms. Jackson moved to San Diego to begin her second career in public education. She received her teaching credential from Cal State San Marcos and a Masters Degree in Educational Leadership from National University. From 1995 to 2003, Ms. Jackson taught at Bay Park Elementary School and served on various school and neighborhood committees including President of the School Site Council. Shelia

Jackson served as Math Team Leader, Instructional Leader, and Institute Coordinator for the San Diego Math Project. She also coordinated the San Diego Math Olympiad for three years. In 2004, Ms. Jackson made the decision to apply her leadership and management skills learned in her military career and her experience as a teacher to run for a seat on the San Diego Unified School Board.

Monday 2:45–3:45 (continued)

Session 157

General

Strand 3

Edward CD

Computational Fluency in Subtraction: What Does It Look Like?

Focusing on subtraction and using student work artifacts, including video, we will consider the foundations of computational fluency in the elementary grades. We will consider these questions: What makes subtraction so difficult? What contexts and representations help students understand the operation? What implications does this have for teaching and professional development?

Keith Cochran, TERC, Cambridge, MA

Karen Economopoulos, TERC, Concord, MA

Session 158

General

Strand 6

Madeleine AB

The C.I.A.'s of Coaching: Come Investigate...

Participate, experience, and engage in activities and processes that veteran coaches have implemented in a high needs urban district. Attendees will be given an opportunity to examine artifacts, practice protocols, and utilize tools in an interactive setting. Leave with knowledge of how our coaching initiative influences curriculum, instruction, and assessment.

Lisa Sanders, Buffalo Public Schools, Lockport, NY

Serena Restivo, Buffalo Public Schools, Buffalo, NY

Karen Murray, Buffalo Public Schools, Buffalo, NY

Joy Kilian, Buffalo Board of Education, Grand Island, NY

Session 159

General

Strand 2

Mohsen

Lessons from Singapore: The Professional Development Required to Implement a World Class Curriculum

The effectiveness of the Singapore math curriculum and of visual models in teaching number sense, operations, and problem solving are well recognized. This workshop will describe, through video and student work, the challenges in bringing this curriculum to the United States.

Andy Clark, Houghton Mifflin Harcourt, Lake Oswego, OR

Session 160

Intermediate (3–5)

Strand 3

Molly AB

Leadership Content Knowledge for Mathematics: How It Affects Elementary and Middle School Principals Classroom Observation and Teacher Supervision

Findings from a large study of K-8 principals Leadership Content Knowledge (LCK) for mathematics will be presented: what principals with different LCK profiles see and value when observing mathematics classrooms and how the principals work with teachers. Participants will examine case study data and discuss the benefits and deficits of different LCK profiles.

Barbara Nelson, Education Development Center, Cambridge, MA

Kristen Reed, Education Development Center, Lexington, MA

Session 161

Middle (6–8)

Strand 2

Elizabeth F

Planning to Teach—Unpacking the Mathematics in a Problem-centered Curricula

This talk will discuss the challenges that teachers face when trying to unpack the mathematics embedded in a sequence of problems in a problem-centered curriculum. Both the mathematical and pedagogical background of teachers play central roles in these efforts.

Elizabeth Phillips, Michigan State University, East Lansing, MI

Glenda Lappan, Michigan State University, East Lansing, MI

Session 162

Middle (6–8)

Strand 1

Elizabeth AB

Successful Strategies for Intervention Students

Classroom-tested strategies for helping intervention students will be demonstrated. Help students learn such skills as mastering multiplication facts, operating with fractions, and more. Learn how to help struggling students gain confidence, comfort, and computational fluency. A comprehensive handout will be provided.

Guy Foresman, Institute for Conceptual Instruction and California Association for the Gifted, Santa Ana, CA

Monday 2:45–3:45 (continued)

Session 163

Middle (6–8)

Strand 4

Windsor BC

Professional Development Strategies to Implement Formative Assessment in Networked Classrooms

This session reports on a three-year professional development research project to implement formative assessment strategies within networked classrooms. Formative assessment strategies and how a TI-Navigator System with 73-Explorer calculators was utilized to implement them will be discussed. Samples of implementation from the 32 teacher participants will be shared.

Melfried Olson, University of Hawaii at Manoa, Honolulu, HI

Judith Olson, University of Hawaii at Manoa, Honolulu, HI

Michael Gilbert, University of Hawaii—Curriculum Research and Development Group, Honolulu, HI

Barbara Gilbert, University of Hawaii—Curriculum Research and Development Group, Honolulu, HI

Session 164: Math Solutions Technology Showcase

K–8

Emma

Introducing ePD™ Coaching

Paula Hidalgo, Math Solutions, Sausalito, CA

Carolyn Felix, Math Solutions, San Antonio, TX

Marji Freeman, Math Solutions, Austin, TX

Math Solutions ePD™ Coaching is a customizable, web-based, professional development service led by Math Solutions instructors. We will demonstrate how your school or district will benefit from technology and the expertise of Math Solutions with collaborative and sustainable professional development services that address your specific problems and goals in mathematics instruction.

Session 165: CASIO America, Inc. Sponsor Showcase

Grades 9–12

Annie

CASIO Technology at Work—Building 21st Century Skills

Kay Neuse, Coppell Independent School District, Coppell, TX

New Tech High at Coppell uses Project Based Learning to deliver core knowledge and 21st Century skills, emphasizing real-world applications. New Tech's students have access to necessary technological tools, including personal laptops and, through a partnership with CASIO, fx-9860 Graphing Calculators. Session attendees receive a CASIO fx-9860 Graphing Calculator.

Monday 2:45–4:45 (Double)

Session 166

General

Strand 6

Elizabeth G

Essential Practices for Coaches That Get Results

This session will go beyond the general, over used terms (e.g. learning communities, trust, relationship) and hone in on the essence of effective coaching. We will name the behaviors and show video examples of coaching practices and moves that are sure to improve classroom practice and build sustainable capacity.

Lucy West, Metamorphosis Teaching Learning Communities, New York City, NY

Antonia Cameron, Metamorphosis Teaching Learning Communities, New York, NY

Session 167

General

Strand 6

Randle A

Differentiated Coaching: Helping Teachers Change Beliefs and Practices

Differentiated coaching capitalizes on teacher strengths to help them transform their classrooms. Learn how to use a neutral framework to uncover teacher beliefs, provide differentiated evidence to change those beliefs, and adopt coaching roles that meet teacher learning styles so that coaching practices model how teachers can differentiate mathematics instruction.

Jane Kise, Differentiated Coaching Associates, LLC, Edina, MN

Session 168

General

Strand 2

Randle E

Increasing Our Capacity to Lead for Equity in Mathematics Education

The mathematics education community has made great progress on educational equity in recent years. It is still a challenge, however, to have productive and meaningful discussions on how race, class, gender, and other forms of bias affect the teaching and learning of mathematics.

Julian Weissglass, Professor of Education, Emeritus, Santa Barbara, CA

Session 169

General

Strand 6

Randle D

Facilitating Professional Learning: Three Models of Practice

In this session we will examine the key components of effective facilitation for three related forms of professional learning: video study groups, lesson study groups, and classroom coaching. This session will highlight our lessons learned and will include mathematics problem-solving activities, classroom video clips, and suggested practices for facilitators.

Lisa Lavelle, Education Northwest, Portland, OR

Claire Gates, Education Northwest, Portland, OR

Monday 2:45–4:45 (continued)

Session 170

Primary (PK–2)

Strand 3

Elizabeth H

Using Video and Student Work Focused on Children's Thinking to Help Professional Developers Support K-3 Teachers in Transforming Their Teaching

In this interactive session, we will draw upon video and written student artifacts to support professional developers working with primary-grade teachers. We will consider characteristics of video and written student work that effectively engage teachers in discussions of children's mathematical thinking as a basis for their teaching.

Randolph Philipp, San Diego State University, San Diego, CA

Vicki Jacobs, San Diego State University, San Diego, CA

Lisa Lamb, San Diego State University, Coronado, CA

John (Zig) Siegfried, San Diego State University, San Diego, CA

Session 171

Middle (6–8)

Strand 4

Randle B

Formative Assessment and Feedback: Teacher Practices and Experiences

Facilitating incorporation of formative assessment practices is the focus of the Northwest Regional Education Laboratory project. This session presents the challenges and successes teachers experience as they use a feedback guide to interpret and use student responses to open solution tasks to provide written feedback and share instructionally selected student performances.

Edith Gummer, Northwest Regional Educational Laboratory, Portland, OR

Claire Gates, Northwest Regional Educational Laboratory, Portland, OR

Traci Fantz, Northwest Regional Educational Laboratory, Portland, OR

Student Recognition Certificates are available at the Registration Desk.

Submit a proposal to speak at the 2011 Annual Conference in Indianapolis. See page 76 for details.

Monday 4:00–5:00

Session 172: Major Session

General

Manchester GHI

Student Focused Assessment Cycle

David Foster, Executive Director, Silicon Valley Mathematics Initiative, Mathematics Assessment Collaboration, Morgan Hill, CA

Presider: Diana Kendrick, NCSM Eastern 2 Regional Director, Upper Marlboro, MD

As education shifts from the pitfalls derived from high stakes testing, there is compelling research that indicates authentic formative assessment, focused on student thinking and student work, is an essential strategy for teachers. This session will describe an assessment cycle tied to student thinking, using state of the art materials, and the innovation of successful teachers to bring formative assessment practice to the reality of the classroom. Materials and video cases will be shared.



David Foster is the mathematics director of the Silicon Valley Mathematics Initiative comprised of 43 member districts in the San Francisco Bay Area. He established SVMI in 1996 working for the Robert N. Noyce Foundation. David Foster is the primary author of *Interactive Mathematics:*

Activities and Investigations, published by Glencoe/McGraw-Hill, 1994. This publication is an innovative mathematics program for middle school students, grades six through eight. His other works include *Exploring Circles*, published by Glencoe, 1996 and *Computer Science One*, published by Coherent Curriculum, 1988. His most current work is *Middle School Mathematics*, published as an online curriculum by Agile Mind, 2006. Two recent articles, *Making Meaning in Algebra: Examining Students' Understandings and Misconceptions* and *When Assessment Guides Instruction: Silicon Valley's Mathematics Assessment Collaborative*, appear in MSRI's "ASSESSING STUDENTS' MATHEMATICS LEARNING: ISSUES, COSTS AND BENEFITS" 2007. David was a Regional Director for the Middle Grade Mathematics Renaissance, a component of the California State Systemic Initiative sponsored by the California Department of Education and funded by the National Science Foundation. David taught mathematics and computer science at middle school, high school and community college for eighteen years. He also works part-time for San Jose State University. He is Co-Director of the Santa Clara Valley Math Project. He is also Co-Chair of the advisory committee of the Mathematics Assessment Resource Service/Balanced Assessment. He is a consultant to the Urban Math Leadership Network that works with the 25 largest school districts in America.

Monday 4:00–5:00 (continued)

Session 173

General

Strand 6

Edward CD

Math Coach Support for Teachers of Struggling Math Learners

What does research say about the needs of struggling math students? How can coaches support teachers so they better understand the needs of these students and so they provide appropriate instruction to learn mathematics? These are questions that will be explored in this session.

Sam Shaneyfelt, Math & Science Collaborative of SWPA/Allegheny Intermediate Unit, Pittsburgh, PA

Session 174

General

Strand 6

Windsor BC

Differentiating Professional Development for Coaches and Teacher Leaders

The power of coaching in developing leaders cannot stand alone at the building level. Aurora Public Schools in Aurora, Colorado has developed several interconnected professional development structures to support district coaches, teacher leaders, demonstration classroom teachers, and teachers in their role in increasing student achievement.

Stephanie Gianneschi, Aurora Public Schools, Aurora, CO

Betsy Collar, Aurora Public Schools, Aurora, CO

Cherie Echols, Aurora Public Schools, Thornton, CO

Session 175

General

Strand 5

Madeleine AB

Curriculum Leadership with PRIME: Is Your Curriculum Meaningful and Relevant?

Learn how Phoenix Union High School District, in Phoenix, AZ, is closing the “expected-acceptance” gap with curriculum. This interactive session will provide participants with the opportunity to review and develop resources on “how-to” ensure that the intended curriculum is implemented and is student and teacher friendly.

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

Susan Heikkinen, Phoenix Union High School District, Phoenix, AZ

Session 176

Intermediate (3–5)

Strand 3

Elizabeth F

Communication and Problem Solving Using Lesson Studies

The presentation team from University of Nevada Las Vegas and Robert Lunt Elementary School will engage participants in a multimedia presentation and a discussion of their journey to increase student achievement in mathematics through a modified lesson study approach focused on problem solving and communication in mathematics.

Thelma Davis, Clark County School District, Las Vegas, NV

Virginia Usnick, University of Nevada Las Vegas, Las Vegas, NV

Jennifer Spinosa, Robert Lunt Elementary School, Las Vegas, NV

Peter Schmit, Robert Lunt Elementary School, Henderson, NV

Session 177

Middle (6–8)

Strand 3

Mohsen

Strategies for Ending the Debate Between Conceptual Understanding and Basic Skills

This session will provide participants with strategies to discuss the conceptual understanding versus basic skills debate in a respectful manner. Participants will be engaged in activities and research involving number sense, fraction sense, and technology (youtube) that can foster support for change in school mathematics and lead to reforms.

Eric Milou, Rowan University, Sewell, NJ

Session 178

Secondary (9–12)

Strand 3

Molly AB

Using Video Clubs as a Vehicle to Link Instruction and Student Learning

Discussing carefully chosen clips of classroom practice helps teachers make teaching public, talk about mathematics and student learning, and can lead to a shift in pedagogy more focused on students. Participants will consider how to establish video club norms and lessons learned using them to develop a community of practice.

Jim King, University of Washington, Seattle, WA

Nicole Bannister, University of Washington, Baltimore, MD

Please turn cell phones off or put on vibrate while in sessions.

Monday 4:00–5:00 (continued)

Session 179

Secondary (9–12)

Strand 1

Elizabeth AB

PRIME the PIPELINE Project: Updating Teachers and Preparing STEM Students

Prime the Pipeline: Putting Knowledge to Work is an NSF-Funded program that engages math and science teachers (as learners), high school students, undergraduate trained mentors, university faculty and industry scientists working on long-term projects in “scientific villages” aimed at exciting all about STEM careers and introducing workplace technologies.

Carole Greenes, Arizona State University, Phoenix, AZ

Ida Malian, Arizona State University, Phoenix, AZ

Deborah Toolson, Arizona State University, Queen Creek, AZ

Mary Cavanagh, Arizona State University, Mesa, AZ

Session 180: Key Curriculum Press Technology Showcase

Grades 3–8

Emma

Sketchpad and Elementary Math—The Key to Improving Student Learning and Engagement

Karen Greenhaus, Key Curriculum Press, Emeryville, CA

Explore how Sketchpad helps teachers more effectively teach elementary mathematics by making it dynamic and engaging. Experience hands-on activities with integers, ratios, and fractions. Discover how Sketchpad allows students to create and extend their mathematical understanding through dynamic explorations. Learn how Sketchpad can help you motivate and improve student learning.

NCSM Regional Leadership Team Meeting (Monday 5:15–6:45)

Session 181

(by invitation only)

Elizabeth F

This meeting of the NCSM Regional Leadership Teams and NCSM Regional Directors will focus on the critical work of NCSM for 2010–2011. This meeting is for all those invited to serve on the Regional Teams.

Facilitator: **Diane J. Briars**, NCSM President, Pittsburgh, PA