
TODOS 2016

Ensuring Equity and Excellence in Mathematics for ALL

Scottsdale, Arizona - June 23-25, 2016



TODOS 2016 Conference is co-sponsored by NSF-funded Arizona
Master Teachers of Mathematics (AZ-MTM), award #1035330



Scottsdale Plaza Resort, 7200 N. Scottsdale Rd, Scottsdale, Arizona, 85253

Table of Contents

President's Letter	3
A Tribute to Cathy Kinzer (1950-2016)	4
2016 TODOS Conference App and Feedback Links	5
Conference Information	6
Schedule Overview	8
Session Overview	9
Program at a Glance	10
Session Descriptions	16
TODOS: Mathematics for ALL	37
TODOS Board Members	38
Conference Committee Chairpersons and Members	38
Professional Development Certificate	42
Social Justice Position Paper	43
Acknowledgements	44
Noyce Foundation	44



National Science Foundation
WHERE DISCOVERIES BEGIN

President's Letter

June 23, 2016

Dear TODOS Conference Participants:



On behalf of TODOS: Mathematics for ALL it is my honor and privilege to welcome you to the TODOS 2016 Conference: Ensuring Equity and Excellence in Mathematics for ALL. Hard work by many has made this effort possible. In the next few days, you have the opportunity to hear a keynote address by Dr. Lee Stiff, an active leader in equity and excellence in mathematics education, and a panel discussion on Social Justice. In addition there are many sessions from which to choose, all focusing on at least one of the following topics:

- Building on Student, Family, and Community Strengths
- Framing Mathematics Education through the Lens of Social Justice
- Implementing Rigorous Mathematics Standards-Based Curriculum
- Assessing Student Mathematical Thinking through Formative Assessment
- Developing Leaders to Achieve Equity and Excellence in Mathematics

Leaders in mathematics education including, researchers, mathematicians, mathematics and K-12 educators and classroom teachers, all committed to excellence and equity will share their expertise about working with ALL students, particularly Latina/o students. As a participant, you are asked to share your own expertise as we create a learning environment that benefits and motivates all in attendance.

Every session in this conference supports at least one of the TODOS Goals through the topics listed above. We hope you see your role in mathematics education addressed and explore with us new ideas to provide equitable support to ALL students to learn high cognitively demanding mathematics. In the long run, increased support leads to increased student proficiency in mathematics.

Be prepared to inspire and to be inspired as we challenge ourselves to better understand issues facing our students and to address them. Take back what you learn and share with others. It is through collaboration and communication that we build a network of committed learners who work together to create better ways to support teachers and students to attain the TODOS Mission and Goals. Enjoy the learning!

Sincerely,

A handwritten signature in cursive script that reads "Diane Kinch".

Diane Kinch
President, TODOS: Mathematics for ALL

A Tribute to Cathy Kinzer (1950-2016)

Cathy Kinzer was a Charter Member of TODOS: Mathematics for ALL and has always been a TODOS supporter. Many members will recall her passion for and dedication to equity and excellence in mathematics education. She was on the faculty of New Mexico State University, served as president of the New Mexico Council for Teachers of Mathematics, and chaired the Emerging Issues Committee for NCTM. She solicited issues from TODOS members to ensure that equity was always part of the conversation.



Cathy touched countless lives through her tireless efforts to transform education at the state and national level. She served on many state and nationally funded grant projects to improve mathematics teaching and learning, maintaining her focus on creating exemplary learning spaces where children could engage in mathematical sense-making and learning to trust their own ways of thinking. She has left a legacy of professional commitment and personal compassion and caring for everyone in her life.

Cathy believed strongly in the efficacy of professional development of teachers. To continue her legacy, TODOS established the Cathy Kinzer Memorial Professional Development Award to be given to an individual to attend a national mathematics education conference or professional development opportunity that focuses on equity and excellence. To contribute to



this award, send the contributions to TODOS:

Mathematics for ALL, P.O. Box 25482, Tempe, AZ 85285-5482 and indicate on the check "Cathy Kinzer PD Award."

Thanks Cathy for all your efforts to support students' mathematical learning.

2016 TODOS Conference App and Feedback Links

Today's Meeting App Is Powered By **ENCORE** CUMULUS™

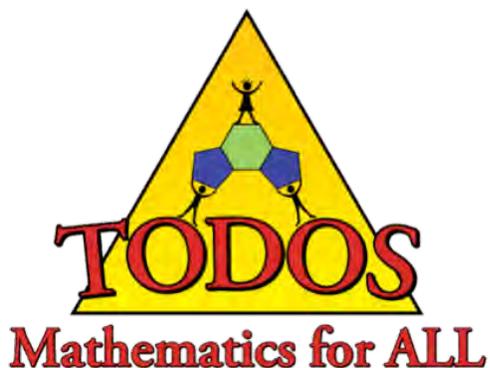
Scan the QR Code or visit cumulus.encore-us.com
on your Smartphone to join the program



Event ID: 1051-9341

Encore Event Technologies provides solutions to its hotel partners' technology needs, and handles various aspects of event planning and production for hotel customers. It provides in-house audiovisual, staging, production, and high-speed Internet provisioning services to hotels and resorts around the world.

Session Feedback
QR Code



Conference Information

Registration

Full Registration is required for participation in all conference activities. The full registration fee includes access to all workshops, general sessions, reception and conference meals. The conference badge issued at registration is your official TODOS 2016 identification and access pass to all activities. The registration also includes the following functions: Reception (Thursday), Breakfasts (Friday and Saturday), and lunches (Friday and Saturday).

By registering for the TODOS 2016 Conference, participants grant TODOS the right to use, in promotional materials, their likenesses as recorded on, or transferred to, various media.

Presenters and Participants

Please check in at the Onsite Welcoming table.

Session Courtesy

All sessions will be located in the Grande Ballroom and La Valencia rooms. As a courtesy to our presenters, please turn off or silence all cell phones, PDA's or other devices that would disrupt presentations, unless otherwise noted by the presenter.

Taping, Recording, or Photographing Sessions

Participants need written permission to tape, record, or photograph sessions directly from the speaker(s) before the session begins. The request should include intended use as well as name and contact information of the requester. A copy of the request should be given to the speaker.

Program Changes

Changes to the TODOS 2016 program will be listed on program addendum provided at the Onsite Welcoming table.

Professional Development

The Professional Development Form found at the back of the program can be used to document your participation in TODOS 2016: Ensuring Equity and Excellence in Mathematics for ALL Conference for professional development credit. Print and sign your name at the bottom of the form in the spaces provided.

Ground Transportation

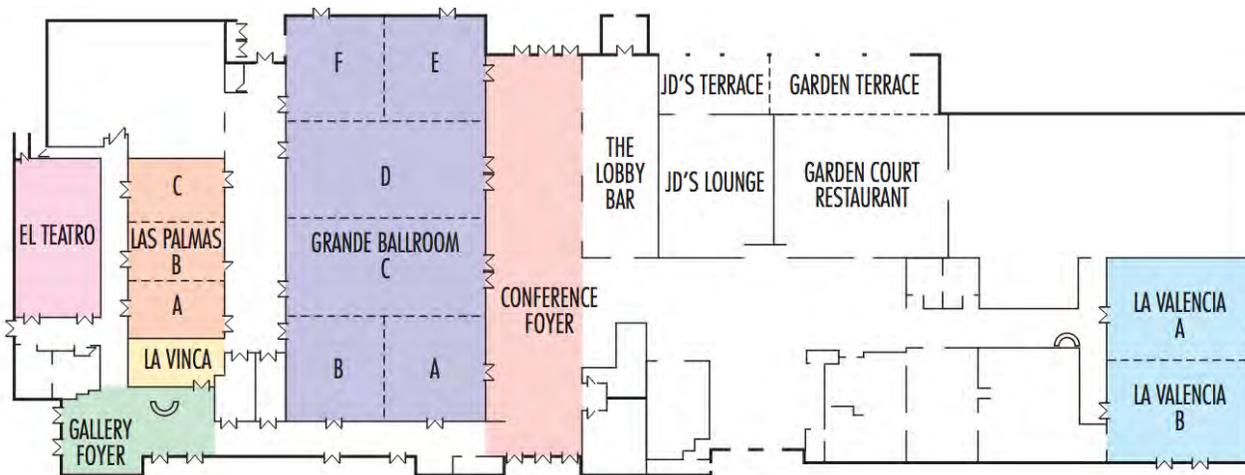
The Scottsdale Plaza Resort offers an airport shuttle that runs to and from Sky Harbor International Airport in Phoenix. The shuttle runs daily from 5am until 9pm, every 30 minutes. The cost is \$23 per person each way. You can reach the Bell Desk at 480-951-5118. Shuttle availability and times are subject to change.

There is a fixed route bus service with a stop in front of the Plaza with connections to four free trolley routes near the Scottsdale/Camelback area. Consult ValleyMetro.org for schedules for Route 72 Scottsdale/Rural route and for information regarding the Downtown, Camelback, Miller Road and Neighborhood trolleys.

Restaurants

The Scottsdale Plaza Resort is located minutes from art galleries, restaurants, Old Town Scottsdale, and championship golf courses. Restaurants located at the resort are Remington's Restaurant & Lounge, J.D.'s Lounge, Garden Court Restaurant, and Café Cabana. Across Scottsdale Road is the Scottsdale Seville Shopping Center with several restaurants ranging from Starbucks to Ruth's Chris Steak House.

Map



Schedule Overview

Thursday, June 23	
4:30-5:00	Check In
5:00-6:30	Welcome, Keynote Speaker, Remarks, and Iris M. Carl Awards
6:30-8:00	Reception
Friday, June 24	
7:00-8:00	Breakfast
8:00-8:45	Opening Session
9:00-11:00	Impact Sessions
11:00-11:15	Break
11:15-12:15	Investigate Sessions
12:15-1:30	Lunch and Ignite Sessions
1:45-2:45	Investigate Sessions
2:45-3:00	Break
3:00-4:30	Investigate Sessions
4:45-5:15	Follow-up Discussions with Impact Communities
5:30-6:30	Student Awards
Saturday, June 25	
7:00-8:00	Breakfast
8:00-9:30	Investigate Sessions
9:30-9:45	Break
9:45-11:15	Investigate and Innovate Sessions
11:15-11:30	Break
11:30-12:45	Lunch and Social Justice Panel
1:00-2:00	Investigate and Innovate Sessions
2:00-2:15	Break
2:15-3:30	Kay Gilliland Equity Series
3:30-4:00	Closing Remarks and Door Prizes

Session Overview

<p>Opening Keynote (45-60 minutes)</p>	<p>Former NCTM President and lifelong advocate and researcher on issues of equity in mathematics education will provide important insights and ideas to set the tone for the conference for all participants.</p>
<p>Impact Sessions (2 hours with 30 minutes follow-up)</p>	<p>Build a foundation for your conference experience by examining the theme of Equity and Excellence in Mathematics with attendance at one of seven Impact Sessions. Each of these sessions is led by expert national speakers in the fields of mathematics and equity and will provide you with a framework for applying your focus for learning throughout the rest of the conference.</p>
<p>Investigate Sessions (60 or 90 minutes)</p>	<p>Deepen your understanding of different conference themes by exploring and participating in one of over fifty different Investigate sessions offering pragmatic strategies that will impact your specific setting. These sessions will be highly participatory, and you can expect abundant learning opportunities that explore implementation in many different contexts.</p>
<p>Innovate Sessions (30 minutes)</p>	<p>Extend your conference experience by attending Innovate Sessions, which are short reports on teaching, research, projects, innovations, and other ideas addressing the conference's topics of interest. Two or three Innovate sessions are grouped in a time slot so that participants have the opportunity to engage with multiple ideas.</p>
<p>Ignite TODOS</p>	<p>Be inspired and engaged by this series of short, powerful presentations. Each Ignite TODOS talk is exactly 20 slides presented in 15-second intervals, insights are shared that generate awareness, stimulate thought, and ignite action.</p>
<p>Social Justice Panel</p>	<p>Against the backdrop of the experiences of teacher Juan Valadez as presented through a brief video, a panel of leading experts and scholars on equity and social justice will discuss and share perspectives about how we might overcome injustice through our roles as mathematics educators and teacher leaders.</p>
<p>Kay Gilliland Equity Workshop Series (75 minutes)</p>	<p>Reflect on your conference attendance and complete your learning experience by attending one of the Kay Gilliland Equity Workshops. Past and current presidents of TODOS and other organizations will lead the workshops. The series will be presented in honor of beloved Kay Gilliland whose career focused on the equity principles at the core of TODOS.</p>

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Thursday	June 23						
4:30-5:00	Onsite Check In						
5:00-6:30	<p>Welcome Keynote Speaker Lee V. Stiff <i>Achieving Equity and Excellence in School Mathematics Requires Leaders Who Provide Access to All Students!</i> Iris M. Carl Equity and Leadership Awards <i>Grande Ballroom C</i></p>						
6:30-8:00	Reception in Conference Foyer						
Friday	June 24						
7:00-8:00	Breakfast						
8:00-8:45	Opening						
	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
IMPACT SESSIONS 9:00-11:00	<p>Robert Q. Berry III M-Scan Measure: A Framework for Examining Mathematics Teaching Practices (General)</p>	<p>Sandra Crespo & Marcy B. Wood Teaching and Learning Life Lessons: Collaboration and Equity in the Mathematics Classroom (PreK-6)</p>	<p>Marilyn Strutchens & W. Gary Martin Implementing Rigorous Standards-Based Mathematics Curriculum: Increasing the Mathematical Power of All Students (6-8)</p>	<p>Marta Civil & José María Menéndez Parents as Partners in Ensuring Equity and Excellence in Mathematics for ALL (General)</p>	<p>Judit Moschkovich & Bill Zahner Integrating Language, Literacy, and Culture in Mathematics (K-12)</p>	<p>Erin Turner & Julia María Aguirre Teaching K-8 Mathematics for Social Justice: Starting Places for Action (K-8)</p>	<p>Rodrigo J. Gutiérrez & Halla Jmourko Promoting Mathematical Discourse with English Learners: Professional Development through a University-District Collaboration (K-5)</p>

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Friday	June 24						
11:00-11:15	Break						
INVESTIGATE SESSIONS 11:15-12:15	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
	Karie Lattimore, Christy Erickson, & Kathy Eichhorst All for Math, Math for All! (K-5)	Elizabeth Bouwens & Paul Seider Developing Algebraic Thinking Across Grade Levels (K-5) (6-8)	Melissa Hosten Measuring our beliefs against our classroom assessment policies: Are we really promoting equity? (9-12)	Matthew Sakow, Erin Smith, & Zandra de Araujo "Imagawayaki is my favorite dessert too!" The influence of fieldwork on creating and adapting tasks for ELLs (K-5) (General)		Jen Hendrickson & Deborah Parsley Conceptual Mathematics: Engaging the ELL Student (6-8)	Stefanie Livers & Craig Willey Equity for Real: Confronting Mathematics Educators' Critical Knowledge, Dispositions, and Practices (General)
LUNCH and IGNITE SESSIONS 12:15-1:30	<p align="center">IGNITE SESSIONS Nora G. Ramirez, Heather Lindfors-Navarro, Robert Q. Berry III, Maggie Hackett, and Susie Håkansson Moderator: Kyndall Brown <i>Grande Ballroom C</i></p>						
INVESTIGATE SESSIONS 1:45-2:45	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
	Zandra de Araujo, Sarah Roberts, Craig Willey, William Zahner, & Amy Dwiggin A Closer Look at Courses that Address Issues of Equity and Diversity in Mathematics Education (College) (General)	Pamela J. Buffington Visual Representations in Mathematics: Supporting Equity and Access for English Learners (K-5) (6-8)	Crystal Kalinec-Craig Doing Math at the DoSeum: Elementary Teachers Developing Interdisciplinary Tasks at an Interactive Children's Museum (K-5)	Angela Thompson & Andrea Johnson Writing Prompts on Mathematics Exams to Promote Universal Design (6-8) (9-12) (College)	Diane Torres- Velasquez, & Carlos LópezLeiva Finding Out/ Descubrimiento (FO/ D): A Curriculum from the Past ~ Adelante al Futuro (General)	Diana Ceja A Formative Assessment Lesson (6-8) (9-12)	Jennifer Yacoubian Three Reads: A Strategy for Supporting English Learners in Accessing and Making Sense of Language-Rich Rigorous Tasks (General)

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Friday	June 24						
2:45-3:00	Break						
INVESTIGATE SESSIONS 3:00-4:30	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
	<p>Sharon Rendon Empowering Students to Make Connections Between Mathematical Representations (6-8) (9-12)</p>	<p>Greisy Winicki-Landman Creating Mathematical Tasks that are Rigorous and Accessible to all Students (K-12)</p>	<p>Florence Glanfield Wicihitowin: Exploring Mathematics Education Leadership Through the Lens of Indigenous Perspectives (General)</p>	<p>Sarah Clarkson & Michelle Higgins Leveraging Collaborative Design Challenges to Inform Mathematics Instruction and Assessment for Diverse Learners (General)</p>	<p>Lindsey Weiland & Natasha Cox Comparing Functions in Multiple Representations: Using Learning Map Models to Identify Prerequisites, Inform Instruction, and Assess Learning (6-8) (9-12)</p>	<p>Erin Sylves & Maya Gueron Ticket to Ride: The Journey to High-Level Tasks (9-12)</p>	<p>Alice Cook Powerful Numbers in a Social Justice Algebra Classroom: Catalyzing Critical Thinking, Rigorous Mathematical Learning, and Student Voice (6-12)</p>
4:45-5:15	<p>Follow-Up Discussions with Impact Communities <i>Participants will meet in the original rooms.</i></p>						
5:30-6:30	<p>Student Awards <i>Grande Ballroom C</i></p>						
Saturday	June 25						
7:00-8:00	Breakfast						
INVESTIGATE SESSIONS 8:00-9:30	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
	<p>James Gray First Generation Equity Worker: A Journey to Discover Who is Really At-Risk (General)</p>	<p>Maggie Hackett Ethnomathematics : Bringing Out-of-School Mathematics "In" (K-8)(General)</p>	<p>Jane Tanner Using "Game" Theory to Help ALL Students Learn (General)</p>	<p>Susana Davidenko & Linda Fulmore The Mathematics Classroom as a Forum to Discuss Historical Events and Connect Them with Current Social Justice Conflicts (K-8)(General)</p>	<p>Christine D. Thomas Experimenting with Transformations in the Plane (6-12)(College)</p>	<p>April Knippen & Keli Dungan Dynamic Discourse (6-8)</p>	<p>Heather Lindfors-Navarro Leadership: Lessons Learned and Next Steps (General)</p>

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Saturday	June 25					
9:30-9:45	Break					
	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom E	Grande Ballroom F
INVESTIGATE & INNOVATE SESSIONS 9:45-10:15		Julie Elvick Family Math Encounters in K-5 Public School (K-5)		Craig Willey & Andrew Gatza Mathematics Discourse Communities: Language Ideologies and Urban Mathematics Teaching with Latinas/os (General)		Ksenija Simic-Muller, & Anthony Fernandes Measuring Preservice Teachers' Beliefs about Teaching Real-world and Controversial Issues (College)
INVESTIGATE & INNOVATE SESSIONS 10:15-10:45	Shelley Kriegler Making Sense of Area and Volume in Middle School (6-8) (General)		Sara Moore Connecting Representations to Provide Access for ALL (K-5) (6-8)	Matthew Miller Using Technology to Ensure Equitable Education for ALL (6-12)(College)	James Sheldon Moving from Individual Deficits to Complex Instruction (K-12)	Tabetha Finchum Social Justice Mathematics with Intermediate Elementary Students: Correlating Free and Reduced Lunch Data with AIMS Scores (K-5) (6-8)
INVESTIGATE & INNOVATE SESSIONS 10:45-11:15		Gil Naizer Square One Academy: An After-school Effort to Generate Confidence and Interest in Mathematics (K-5) (6-8)		Gorjana Popovic & Susie Morrissey How Does Professional Development on Common Core State Standards- Mathematics Relate to Student Achievement in an Urban High School? (9-12)		Mark Franzak Grit, Ethnicity, and Mathematics: How Diversity Intersects with Secondary Teachers' Beliefs about Mathematics (6-8) (9-12)
11:15-11:30	Break					

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Saturday	June 25						
LUNCH & SOCIAL JUSTICE PANEL 11:30-12:45	<p>Juan's Mathematical Journey of Overcoming Injustice: A Dialogue Examining Issues of Equity and Social Justice Alejandra Sorto, Juan Valadez, Alfinio Flores, Julia M. Aguirre, Carlos LópezLeiva, and Eduardo Mosqueda Moderator: Alfinio Flores <i>Grande Ballroom C</i></p>						
12:45-1:00	Break						
	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom C	Grande Ballroom E	Grande Ballroom F
INVESTIGATE & INNOVATE SESSIONS 1:00-1:30	<p>Barbara Boschmans & Brian Beaudrie Preparing Preservice Teachers to Achieve Equity and Excellence in the Mathematics Classroom (6-8), (9-12), (College)</p>	<p>Richard Zilm Problem Solving = No Problem, A Look at Creating Viable Arguments (6-8)</p>	<p>Erin Smith, Matt Sakow, & Zandra de Araujo "What is a stadium?" Attention to, motivations for, and effectiveness of preservice teacher task modifications for ELLs (K-5)(General)</p>	<p>Carlos LópezLeiva Positioning Diverse Learners at the Center of Mathematics Education (K-5) (General)</p>	<p>Woong Lim Reducing Language Barriers in Assessments for English Language Learners (9-12)</p>	<p>Andrew Gatza & Erika Tillema Interrupting the Dominant Discourse: Seeing Children's Mathematics and Interrogating Manifestations of Whiteness and Colorblindness (6-8)</p>	<p>Larry Lesser & Amy Wagler Using Multilingual Resources for Learning Probability: A Rich Research-based Example of Language and Culture Dynamics and Resources (9-12) (College)</p>
INVESTIGATE & INNOVATE SESSIONS 1:30-2:00					<p>Larry Lesser, Marta Civil, Cynthia O. Anhalt, & TEEM Editors/ Editorial Board Information and Feedback Session for Those Considering Writing for the TODOS Journal Teaching for Excellence and Equity in Mathematics (General)</p>	<p>Nuria Jaumot-Pascual Nana y Yo y las Matemáticas: Engaging children, Caregivers, and Facilitators in Mathematics Learning in Community-Based Preschools (General)</p>	<p>Vijaya Gompa Reading and Writing in Learning Mathematics (K-12)</p>

June 23 - 25

TODOS 2016 Conference Sessions and Speakers

Saturday	June 25					
2:00-2:15	Break					
	La Valencia A	La Valencia B	Grande Ballroom A	Grande Ballroom B	Grande Ballroom E	Grande Ballroom F
KAY GILLILAND Equity Series 2:15-3:30	Don Balka Fostering Rigor in Mathematics for ALL Students (K-5) (6-8)	Matt Larson Actions to Achieve Access, Equity, and Excellence! (General)	Nora G. Ramirez & Bob McDonald Exploring Communication Challenges Across Cultures (General)	José Franco Student Voices: Let Them be Heard (K-12)	Diane Kinch Building Relationships that Foster Equity and Rigor in Mathematics Classrooms (General)	John Staley Leading for Equity in Mathematics Education (General)
3:30-4:00	Closing Remarks and Door Prizes in Grande Ballroom CD					

Session Descriptions

Thursday, June 23, 2016

4:30-5:00	Onsite Check In	Conference Foyer
5:00-6:30	Welcome	Grande Ballroom C
	Keynote: Lee V. Stiff	
	Iris M. Carl Equity and Leadership Awards	

Achieving Equity and Excellence in School Mathematics Requires Leaders Who Provide Access to All Students!

The nature of student access to high quality, rigorous mathematics will be examined. The rights and wrongs of school leadership will be exposed!

Lee V. Stiff is a Professor of Mathematics Education at North Carolina State University and has taught mathematics in grades K-12. He received the Blackmon Award for Excellence in Teaching while at the University of North Carolina at Charlotte, the Rankin Memorial Award for Excellence in Mathematics Education from the North Carolina Council of Teachers of Mathematics, and a Fulbright Scholar Award to the University of Ghana. Following his tenure on the NCTM Board of Directors, he served as President of the National Council of Teachers of Mathematics from 2000 to 2002. Between 1989 and 2011, Dr. Stiff was a co-author of elementary, middle grades, and high school textbooks in mathematics, currently published by Houghton Mifflin Harcourt and Holt McDougal.



He is the co-founder and President of EDSTAR Analytics, a consulting firm providing schools with data-driven decision models for student success and teacher effectiveness. He is also the President of Morgan's Mark, a movie production/editing company based in Los Angeles, known for its film work: *BURN*, *TIGER ORANGE*, *ANT*, and currently screening on Netflix, *MISSISSIPPI DAMNED*.

Dr. Stiff was awarded a B.S. degree in mathematics from the University of North Carolina at Chapel Hill in 1971, an M.A. degree in mathematics from Duke University in 1974, and a Ph.D. in mathematics education from North Carolina State University in 1978.

lvstiff@ncsu.edu

6:30-8:00	Reception	Conference Foyer
-----------	-----------	------------------

Friday, June 24, 2016

7:00-8:00	Breakfast	Conference Foyer
8:00-8:45	Opening Session	Grande Ballroom C
9:00-11:00	Impact Sessions	

M-Scan Measure: A Framework for Examining Mathematics Teaching Practices	Robert Q. Berry III	K-12, General	La Valencia A
--	---------------------	---------------	---------------

Standards-based mathematics teaching practices is often associated with the eight teaching practices and standards set forth by the National Council of Teachers of Mathematics (NCTM) (2000 & 2014). The NCTM eight teaching practices and standards provide a vision for teaching mathematics; however, they pose challenges to researchers and mathematics teacher educators because they do not provide enough details and specific indicators necessary for measuring mathematics teaching. Because of the lack of details and specificity, teachers vary widely in their mathematics teaching (Pianta & Hamre, 2009). The M-Scan measure was developed to address this challenge. The M-Scan provides translation from the NCTM principles and standards to mathematics teaching practices. Additionally, the M-Scan was developed using the research literature in mathematics education that converges on nine dimensions. rqb3e@virginia.edu



Teaching and Learning Life Lessons: Collaboration and Equity in the Mathematics Classroom	Sandra Crespo & Marcy B. Wood	PreK-6	La Valencia B
---	-------------------------------	--------	---------------

This session focuses on mathematics teaching that counteracts the image of mathematics classrooms as competitive spaces for learning and for education inequities. Using the lens of Complex Instruction, in this session, we discuss the problem that unequal student participation creates in the mathematics classroom and how to address it by designing mathematics lesson that demand collaboration. We introduce the audience to three collaborative learning structures that require active and equitable participation. The audience will then use these structures to revise a mathematics task and to further unpack qualities of tasks that support empowering and equitable learning. We close by sharing classroom norms teachers can use to maximize these tasks' potential for teaching life lessons that transcend the mathematics classroom. crespo@msu.edu, Wood--mbwood@email.arizona.edu



Sandra Crespo



Marcy B. Wood

Implementing Rigorous Standards-Based Mathematics Curriculum (Grades 6-12): Increasing the Mathematical Power of All Students	Marilyn Strutchens & W. Gary Martin	6-12	Grande Ballroom A
---	-------------------------------------	------	-------------------

In this session, we define rigorous curriculum as curriculum that pursues conceptual understanding, procedural skills and fluency, and application with equal intensity and establishes the connections between all of these components of mathematics learning (NGA and CCSSO, 2010; NCTM, 2014). We will emphasize the importance of students developing understanding of a situation, concept, or context by connecting it with existing knowledge -sense making of mathematics - and engaging in reasoning - drawing conclusions based on evidence or stated assumptions (NCTM, 2009). Participants will find that when students are engaged in sense making of mathematics and reasoning that they develop mathematical power and are able to see the connections that should be established through a rigorous curriculum. strutme@auburn.edu



Marilyn Strutchens



W. Gary Martin

Friday, June 24, 2016

9:00-11:00

Impact Sessions

Parents as Partners in Ensuring Equity and Excellence in Mathematics for ALL	Marta Civil & José María Menéndez	K-12, General	Grande Ballroom B
<p>In this session we will share some of the activities that we have used in our work with Latina/o parents and discuss some findings from research on parental engagement in mathematics. Our goals are: 1) to show how we can collaborate with parents in meaningful ways, as partners in the teaching and learning of mathematics; 2) to provide practical suggestions to help bridge the home-school gap, particularly when working with diverse students; and 3) to share what we have learned from listening to parents, in particular in two areas—valorization of knowledge and language and mathematics. civil@math.arizona.edu</p>			 <p>Marta Civil</p>  <p>José María Menéndez</p>
Connecting the Mathematical Practices and Academic Language for Els	Judit Moschkovich & Bill Zahner	K-12, General	Grande Ballroom C
<p>How can mathematics teachers best meet the needs of linguistically diverse students and English Learners? We will use two case studies to present a framework for connecting the Common Core Standards for Mathematical Practice with principles for teaching Academic Language in classes with English Learners. After a short introduction to the framework, participants will have the opportunity to examine mathematical tasks using a focus on fostering Academic Language and developing Mathematical Practices with ELs. jmoschko@ucsc.edu</p>			 <p>Judit Moschkovich</p>  <p>Bill Zahner</p>

“Be the change that you wish to see in the world.”

~ Mahatma Gandhi

“Change begins with me.”

Friday, June 24, 2016

9:00-11:00

Impact Sessions

<p>Teaching K-8 Mathematics for Social Justice: Starting Places for Action</p>	<p>Erin Turner & Julia María Aguirre</p>	<p>K-8</p>	<p>Grande Ballroom E</p>
<p>This interactive session will introduce participants to key principles and strategies for <i>Teaching Mathematics for Social Justice (TMSJ)</i> in the elementary and middle grades. TMSJ is an advocacy approach for teaching children to learn rich, rigorous and relevant mathematics that authentically connects to students' lived experiences; cultivates a positive mathematics identity, and reduces status and power issues in the classroom. Video clips, group activities, mathematics tasks, and student work will be used to illustrate key principles and connections to the Common Core Standards, and to provide examples of TMSJ in action. The session will end with opportunities for participants to explore resources, and to brainstorm ways to get started with Teaching Mathematics for Social Justice in their own classrooms, courses or workshops! eturner@email.arizona.edu, jaguirre@u.washington.edu</p>			 <p>Erin Turner</p>  <p>Julia María Aguirre</p>
<p>Promoting Mathematical Discourse with English Learners: Professional Development through a University-District Collaboration</p>	<p>Rodrigo J. Gutiérrez & Halla Jmourko</p>	<p>K-5</p>	<p>Grande Ballroom F</p>
<p>This session will focus on the design and implementation of teacher professional development for improving mathematics instruction for English Learners. Workshop participants will review and discuss teacher training materials, as well as language-based instructional tools for classroom implementation. Both teachers and teacher educators (e.g., coaches, university faculty) will develop an understanding of approaches to align the CCSS Mathematical Practices and the WIDA Language Development Standards. More specifically, the presenters will provide an overview of their unique partnership to offer a yearlong professional development ("Focus Group") aimed at supporting elementary mainstream and ESOL teachers to engage English Learners in mathematical discourse. The Focus Group emphasized the development of the teachers' knowledge and practices related to problem solving based mathematics, the language of mathematics, linguistic supports, and discourse moves. mistergut@gmail.com</p>			 <p>Rodrigo J. Gutiérrez</p>  <p>Halla Jmourko</p>

11:00-11:15

Break



Friday, June 24, 2016

11:15-12:15 Investigate Sessions

All for Math, Math for All!	Karie Lattimore , Christy Erickson, & Kathy Eichhorst	K-5	La Valencia A
-----------------------------	---	-----	------------------

Engage in an activity designed to demonstrate the accessibility of mathematics content for all learners. General, special education and ELL teachers will gain ideas about differentiating mathematics lessons to include ALL students. Teachers will share their experiences and some effective lessons, which make mathematics meaningful and equitable for all.

karie.lattimore@tusd1.org, christy_erickson66@hotmail.com, eichhfam@cox.net

Developing Algebraic Thinking Across Grade Levels	Elizabeth Bouwens & Paul Seidler	K-8	La Valencia B
---	-------------------------------------	-----	------------------

Algebra doesn't suddenly appear in middle school, it begins in the early elementary grades. Participants will understand how algebra standards progress from K to 8. They will incorporate teaching strategies that provide opportunities for all students to be actively engaged in their own learning and ensure equal access to mathematics.

lissasb@hotmail.com, paul.seidler@tusd.1.org

Measuring our beliefs against our classroom assessment policies: Are we really promoting equity?	Melissa Hosten	9-12	Grande Ballroom A
--	----------------	------	-------------------------

We hold strong beliefs about teaching and learning mathematics. Do our assessment policies align with our philosophies? This session uncovers beliefs while measuring assessment practices against those beliefs. We will discuss the journey of one math department from articulating their beliefs to how they are changing policies and transforming classrooms.

m.melissa.hosten@gmail.com

"Imagawayaki is my favorite dessert too!" The influence of fieldwork on creating and adapting tasks for ELLs	Matthew Sakow, Erin Smith, & Zandra de Araujo	K-5, General	Grande Ballroom B
--	---	-----------------	-------------------------

While providing English language learners with access to tasks is crucial to ensuring equity within the mathematics classroom, it is necessary to consider whether we are ensuring excellence as well. This session will analyze the inherent challenges in selecting or creating both accessible and cognitively demanding tasks.

matt.sakow@gmail.com, dearaujoz@missouri.edu, emsxh3@mail.missouri.edu

Conceptual Mathematics: Engaging the ELL Student	Jen Hendrickson & Deborah Parslow	6-8	Grande Ballroom E
--	--------------------------------------	-----	-------------------------

All students need opportunities to build language skills as they develop conceptual understanding. In this session, we will share a data analysis lesson that combines conceptual learning of measures of center (mean, median, mode and range) with multiple strategies for supporting language development, and creating equitable learning environments.

j.1.hendrickson@maranausd.org , deborah.vasquez@tusd1.org

Equity for Real: Confronting Mathematics Educators' Critical Knowledge, Dispositions, and Practices	Stefanie Livers & Craig Willey	General	Grande Ballroom F
---	-----------------------------------	---------	-------------------------

In this session, we will invite participants to consider how they help showcase the brilliance of learners of color, how they model how to draw on children's community and funds of knowledge, and how they acknowledge and combat their own Whiteness in mathematics teaching with children of color.

sdlivers@ua.edu, cjwilley@iupui.edu

Friday, June 24, 2016

12:15-1:30 Lunch and Ignite Sessions

Ignite Sessions	Nora G. Ramirez, Heather Lindfors-Navarro, Robert Q. Berry III, Maggie Hackett, & Susie Håkansson Moderators: Kyndall Brown	Grande Ballroom C
-----------------	--	-------------------

1:30-1:45 Break

1:45-2:45 Investigate Sessions

A Closer Look at Courses that Address Issues of Equity and Diversity in Mathematics Education	Zandra de Araujo, Sarah Roberts, Craig Willey, William Zahner, & Amy Dwigins	College, General	La Valencia A
---	--	------------------	---------------

Courses focused on issues of equity and diversity in mathematics education are becoming more widely available, however, little is known about the “how” or “what” of these courses. Mathematics educators will share their experiences teaching such courses and lead discussions analyzing the work and impact of these courses.

dearaujoz@missouri.edu, sroberts@education.ucsb.edu, cjwilley@iupui.edu, bzahner@mail.sdsu.edu, add39c@mail.missouri.edu

Visual Representations in Mathematics: Supporting Equity and Access for English Learners	Pamela J. Buffington	K-8	La Valencia B
--	----------------------	-----	---------------

Visual representations (VRs) as problem solving tools have great potential for supporting students who are English learners (ELs). Explore how VRs in rational number contexts can support mathematical work and communication. Discuss how to weave language strategies into VR-focused lessons, informed by example work produced by ELs using technological tools.

pbuffington@edc.org

Doing Math at the DoSeum: Elementary Teachers Developing Interdisciplinary Tasks	Crystal Kalinec-Craig	K-5	Grande Ballroom A
--	-----------------------	-----	-------------------

Based on a professional development workshop at an interactive children’s museum, we will discuss the task, “Secret Hideout,” and how elementary students can use informal and formal units of measurement as a means of constructing an accurate map for a secret location. Implications for practice and research will be discussed.

crystal.kalinec-craig@utsa.edu



Friday, June 24, 2016

1:45-2:45

Investigate Sessions

Writing Prompts on Mathematics Exams to Promote Universal Design	Angela Thompson & Andrea Johnson	6-12, College	Grande Ballroom B
--	----------------------------------	---------------	-------------------

Some students have correct mathematical conceptual understanding, but make errors that lead to incorrect responses on exams. By asking students to explain their understanding through writing, the instructor can better determine what students know. This method is particularly effective in learning about struggling students, including evidence that learning occurs during test taking.

athompson7@govst.edu, atyson2@student.govst.edu

Finding Out/Descubrimiento (FO/D): A Curriculum from the Past ~ Adelante al Futuro	Diane Torres-Velasquez, & Carlos LópezLeiva	General	Grande Ballroom C
--	---	---------	-------------------

Participants will learn the theoretical background and the components of a bilingual (Spanish/English) mathematics/science curriculum called Finding out/Descubrimiento. Participants will learn about equal status treatments and will participate in some lessons from the kit. Participants will take away many strategies for language and cognitive development.

professorrtorres1@aol.com, vlasquez@unm.edu, callopez@unm.edu,

A Formative Assessment Lesson	Diana Ceja	6-12	Grande Ballroom E
-------------------------------	------------	------	-------------------

We will experience a lesson designed by the Math Assessment Project that uses the formative assessment process and cognitive demanding tasks in order to ensure access to rigorous mathematics.

dceja@rcoe.us

Three Reads: A Strategy for Supporting English Learners in Accessing and Making Sense of Language-Rich Rigorous Tasks	Jennifer Yacoubian	General	Grande Ballroom F
---	--------------------	---------	-------------------

Participants will engage as learners in the Three Reads Protocol to support their own access to and engagement in a language-rich rigorous mathematical task. The Three Reads is a mathematics and language comprehension strategy designed to deepen students' understanding of both the situation and the mathematics and make sense of a problem before setting out to solve it, delaying the rush to an answer. We will discuss implications for all students, in particular our English Learners, and make connections to the Mathematical Practices in the CCSS.

jennifer_yacoubian@dpsk12.org

2:45-3:00

Break

Friday, June 24, 2016

3:00-4:30

Investigate Sessions

Empowering Students to Make Connections Between Mathematical Representations	Sharon Rendon	6-12	La Valencia A
--	---------------	------	---------------

Participate in activities designed to develop a rich understanding of the connections between multiple representations of functions. Experience tasks that help students move from one representation to the others while developing a deep understanding of the CCSS Mathematical Practices.
sharonrendon@cpm.org

Creating Mathematical Tasks that are Rigorous and Accessible to all Students	Greisy Winicki-Landman	K-12	La Valencia B
--	------------------------	------	---------------

Identifying, creating and facilitating worthwhile mathematical tasks for all our students are part of our duties as educators at all grade levels. Participants will engage in different types of tasks and reflect on their commonalities and differences, creating a working framework for "rigorous but accessible to all" tasks.
greisyw@cpp.edu

Wicahitowin: Exploring Mathematics Education Leadership Through the Lens of Indigenous Perspectives	Florence Glanfield	General	Grande Ballroom A
---	--------------------	---------	-------------------

Indigenous perspectives are situated on principles of reciprocity, relevance, respect, relationship, and responsibility within communities. Participants will explore leadership in mathematics education through the lens of Indigenous perspectives in this session.
fglanfield@gmail.com

Leveraging Collaborative Design Challenges to Inform Mathematics Instruction and Assessment for Diverse Learners	Sarah Clarkson & Michelle Higgins	General	Grande Ballroom B
--	-----------------------------------	---------	-------------------

Experience a design challenge that provides all learners with opportunities to showcase proficient mathematical thinking and mathematically productive habits of mind. Explore the use of inquiry, note booking, and group sense-making strategies as elements of formative assessment that honors learners' social and cultural capital and reinforces a positive mathematics identity.
smclarkson@email.arizona.edu, mlhiggins@email.arizona.edu

Comparing Functions in Multiple Representations: Using Learning Map Models to Identify Prerequisites, Inform Instruction, and Assess Learning	Lindsey Weiland & Natasha Cox	6-12	Grande Ballroom C
---	-------------------------------	------	-------------------

We will explore a learning map model and engage in activities focused on comparing functions. Our games and activities address diverse learning needs and promote discourse, setting the conditions for providing students the descriptive feedback they need to close learning gaps. Participants can request samples of the activities.
lwiegele@ku.edu , tecatodn@gmail.com

Friday, June 24, 2016

3:00-4:30 Investigate Sessions

Ticket to Ride: The Journey to High-Level Tasks	Erin Sylves & Maya Gueron	9-12	Grande Ballroom E
---	---------------------------	------	-------------------

By the end of this session participants will be able to appropriately adapt tasks, making them more accessible for English learners. We will discuss rigor, distinguish between low-level and high-level tasks, and work in depth through a real-world Algebra task to highlight multiple entry points and specific scaffolds that support grade-level learning. All aboard!

eisylves@fcps.edu, maya.gueron@gmail.com

Powerful Numbers in a Social Justice Algebra Classroom: Catalyzing Critical Thinking, Rigorous Mathematical Learning, and Student Voice	Alice Cook	6-12	Grande Ballroom F
---	------------	------	-------------------

The Algebra 2 Powerful Numbers Expedition focused on the power of functions and data through analysis of the Washington, DC, HIV/AIDS crisis. The presentation includes unit activities, student artifacts, and discussion of using student voice, community, and social justice to create a more equitable, engaging, and high-standards mathematics learning environment.

cookie.teach@gmail.com

4:45-5:15 Follow-Up with Impact Communities
Participants will meet in the original rooms.

5:30-6:30 Student Awards Grande Ballroom CD



Saturday, June 25, 2016

7:00-8:00

Breakfast

Conference Foyer

8:00-9:30

Investigate Sessions

First Generation Equity Worker: A Journey to Discover Who is Really At-Risk	James Gray	General	La Valencia A
---	------------	---------	---------------

In spring of 2013, Community College of Aurora's Mathematics Department began the journey to discover how its own practices and beliefs have contributed to inequitable outcomes for students. This session will engage participants in self-reflection using the lessons of the Center for Urban Education's Equity in Excellence Project in Colorado.

james.gray@ccaaurora.edu

Ethnomathematics: Bringing Out-of-School Mathematics "In"	Maggie Hackett	K-8, General	La Valencia B
---	----------------	--------------	---------------

Real-world is messy and mathematics class should reflect that. In this session, participants will look into the world of ethnomathematics and begin to discover the benefits out-of-school mathematics can have within the four walls of the classroom, through discussion and engaging in a mathematics task.

margaretha@susd12.org

Using "Game" Theory to Help ALL Students Learn	Jane Tanner	General	Grande Ballroom A
--	-------------	---------	-------------------

As educators, many times we need to encourage our students to attend class so we can work our "magic" on them. The use of games allows ALL students to find a non-threatening environment in which to learn, often in spite of themselves.

tannerj@sunyocc.edu

The Mathematics Classroom as a Forum to Discuss Historical Events and Connect Them with Current Social Justice Conflicts	Susana Davidenko & Linda Fulmore	K-8, General	Grande Ballroom B
--	----------------------------------	--------------	-------------------

Participants will engage in tasks they can use to bring the conversation about social justice issues into the classroom. Mathematical ideas of proportions and data/graphs are used as tools to interpret conflicts in the past and their occurrence in current time, as they might impact the students in their classroom.

susana.davidenko@cortland.edu, lmfulmore@yahoo.com

Experimenting with Transformations in the Plane	Christine D. Thomas	6-12, College	Grande Ballroom C
---	---------------------	---------------	-------------------

Come explore how to engage students in explorations that scaffold learning of rigid motions in the coordinate plane using manipulatives and graphing calculators.

cthomas11@gsu.edu



Saturday, June 25, 2016

8:00-9:30 Investigate Sessions

Dynamic Discourse	April Knippen & Keli Dungan	6-8	Grande Ballroom E
-------------------	-----------------------------	-----	-------------------

Want to get students really talking about mathematics? This session will look at the differing attributes of student-led dialogue. We will encounter methods to scaffold these types of discussions with students as a means of supporting problem-solving. Let's elevate the discussions our students are having about [mathematics!](#) april.knippen@tusd1.org, K.L.Dungan@maranausd.org

Leadership: Lessons Learned and Next Steps	Heather Lindfors-Navarro	General	Grande Ballroom F
--	--------------------------	---------	-------------------

Once considering leaving education, Heather is now a teacher leader. She will talk about the experiences that kept her in education, key lessons that shifted her mindset, and will share her thoughts on how to stay focused and develop resiliency, while encouraging others to join in this work. heathernavarro@msn.com

9:30-9:45 Break

9:45-10:45 Investigate Sessions

Making Sense of Area and Volume in Middle School	Shelley Kriegler	6-8, General	La Valencia A
--	------------------	--------------	---------------

Come experience hands-on activities that give meaning to the area and volume formulas students learn in 6th-8th grade. And just for fun, we may tackle the Pythagorean Theorem too. shelley@mathandteaching.org

Connecting Representations to Provide Access for ALL	Sara Moore	K-8	Grande Ballroom A
--	------------	-----	-------------------

Join us to explore representations of mathematical operations and strategies to help students connect representations when problem-solving. If one context for addition and subtraction is comparison, what does that look like across representations? How do we help students connect more comfortable representations to those less familiar? sdm1146@gmail.com

Moving from Individual Deficits to Complex Instruction	James Sheldon	K-12	Grande Ballroom E
--	---------------	------	-------------------

Everyone has had a student that did not succeed in mathematics no matter what they tried. This interactive workshop offers an alternative to deficit-based approaches by inviting teachers to reorient curriculum around multiple-ability, groupworthy tasks. Teachers will experience complex instruction and reflect on how to use this approach so that all students can meaningfully participate in their classroom. jsheldon@email.arizona.edu

Saturday, June 25, 2016

9:45-10:15 Innovate Sessions

Mathematics Discourse Communities: Language Ideologies and Urban Mathematics Teaching with Latinas/os	Craig Willey & Andrew Gatza	General	Grande Ballroom B
---	-----------------------------	---------	-------------------

This session focuses on the mathematics Discourse communities developed through the pedagogical moves and talk of two monolingual teachers. After presenting the case studies, we will invite participants to consider the impact of particular Discourse communities on emergent bilingual Latinas/os and teachers' role in supporting mathematics language development.
cjwilley@iupui.edu, agatza@iupui.edu

Measuring Preservice Teachers' Beliefs about Teaching Real-World and Controversial Issues	Ksenija Simic-Muller, Anthony Fernandes	College	Grande Ballroom F
---	---	---------	-------------------

In this session participants will learn about a survey that investigates preservice teacher beliefs about teaching mathematics through real-world contexts, in particular controversial issues and issues of injustice. Participants will interact with the survey and reflect on the role of controversial issues in the mathematics curriculum.
simicmka@plu.edu, anthony.fernandes@uncc.edu

9:45-10:30 Innovate Sessions

Family Math Encounters in K-5 Public School	Julie Elvick	K-5	La Valencia B
---	--------------	-----	---------------

In this session, I will share strategies for facilitating family mathematics events. Through such events, parents learn how mathematics is approached in schools today, parents and children gain confidence in their ability to do/learn mathematics, and everyone benefits from the creation of a community-based support network for children's learning.
jaelvick@gmail.com

10:15--10:45

Using Technology to Ensure Equitable Education for ALL	Matthew Miller	6-12, College	Grande Ballroom B
--	----------------	---------------	-------------------

This session will explore a self-paced mathematics classroom where students master every standard at their own pace and engage in quality mathematics curriculum through Schoology and EduCanon as well as other technology applications. Come to learn how ALL of your students will learn to use mathematics to their advantage.
mmiller59@cps.edu

Saturday, June 25, 2016

10:15-10:45 Innovate Sessions

Social Justice Mathematics with Intermediate Elementary Students: Correlating Free and Reduced Lunch Data with AIMS Scores	Tabetha Finchum	K-8	Grande Ballroom F
--	-----------------	-----	-------------------

Students have the right to access their own personal data and begin formulating opinions as to the correlation between their own personal circumstances and their academic performance. Join us to explore one teacher's work to provide her students with experience using mathematics as a tool for exploring their own data.
tabetha.finchum@fwusd.org

10:30-11:15 Innovate Sessions

Square One Academy: An After-school Effort to Generate Confidence and Interest in Mathematics	Gil Naizer	K-8	La Valencia B
---	------------	-----	---------------

Square One Academy is a pilot program implemented in a Boys & Girls Club that approached learning of mathematics through paper plate folding with minimal use of mathematical terms. Fifth and sixth graders who claimed to hate mathematics became excited about learning and gained confidence in their mathematics abilities.
gilbert.naizer@tamuc.edu

10:45-11:15 Innovate Sessions

How Does Professional Development on Common Core State Standards-Mathematics Relate to Student Achievement in an Urban High School?	Gorjana Popovic & Susie Morrissey	9-12	Grande Ballroom B
---	-----------------------------------	------	-------------------

Professional development on Algebra I and Geometry content knowledge was presented by modeling CCSSM Standards of Mathematical Practice. Teachers in an urban charter school network realized that the activities were accessible to their students who do not score well on traditional mathematics assessments. We will discuss teachers' enactment of these activities, as well as student achievement.
gorjana.popovic@gmail.com, gmorriss@hawk.iit.edu

Grit, Ethnicity, and Mathematics: How Diversity Intersects with Secondary Teachers' Beliefs about Mathematics	Mark Franzak	6-12	Grande Ballroom F
---	--------------	------	-------------------

In this session, I will present findings on secondary mathematics teachers' beliefs about mathematics, teaching and learning mathematics, and race/ethnicity. A key finding relates to manifestation of beliefs about student diversity within teachers' conceptualization of teaching and learning mathematics. Implications for classroom practice and teacher education will be discussed.
mfranzak@nmsu.edu

Saturday, June 25, 2016

11:15-11:30 Break

11:30-12:45 Lunch & Social Justice Panel

Juan's Mathematical Journey of Overcoming Injustice: A Dialogue Examining Issues of Equity and Social Justice	Alejandra Sorto, Juan Valadez, Alfinio Flores, Julia M. Aguirre, Carlos LópezLeiva, & Eduardo Mosqueda Moderator: Alfinio Flores	Grande Ballroom C
---	---	-------------------

12:45-1:00 Break

1:00-2:00 Investigate Session

Preparing Preservice Teachers to Achieve Equity and Excellence in the Mathematics Classroom	Barbara Boschmans & Brian Beaudrie	6-12, College	La Valencia A
---	------------------------------------	---------------	---------------

Join us for a problem solving activity that will help you to understand the difficulty students have solving problems in a non-native language. Participants will have the opportunity to take standard problems and turn them into problems accessible to all students.
barbara.Boschmans@nau.edu, brian.Beaudrie@nau.edu

Problem Solving = No Problem, A Look at Creating Viable Arguments	Richard Zilm	6-8	La Valencia B
---	--------------	-----	---------------

Get ready to take a look at practical day to day ways of enhancing problem solving. Sources of problems as well as ways to use them in the classroom will be shared.
zilm.richard@cusd80.com

"What is a stadium?" Attention to, motivations for, and effectiveness of preservice teacher task modifications for ELLs	Erin Smith, Matt Sakow, & Zandra de Araujo	K-5, General	Grande Ballroom A
---	--	--------------	-------------------

In this session, participants will examine the ways in which four preservice teachers (PSTs) attended to the needs of English language learners (ELLs) while working on a cognitively demanding mathematical task. Participants will gain insight into the motivations behind and effectiveness of PSTs' task modifications.
emsxh3@missouri.edu, mes7v6@mail.missouri.edu, dearaujoz@missouri.edu

Positioning Diverse Learners at the Center of Mathematics Education	Carlos LópezLeiva	K-5, General	Grande Ballroom B
---	-------------------	--------------	-------------------

Through an example of a curricular shift in a mathematics methods course for elementary education teachers, this session will present explorations that pre-service teachers engaged in to tailor their lessons to their students' funds of knowledge. Furthermore, the audience will engage on a reflection process to implement a similar approach.
callopez@unm.edu

Saturday, June 25, 2016

1:00-1:30

Innovate Session

Reducing Language Barriers in Assessments for English Language Learners	Woong Lim	9-12	Grande Ballroom C
---	-----------	------	-------------------

The presenter will share high school mathematics assessment items appropriate for English language learners using mathematical symbols with low language complexity. Participants are encouraged to share their experiences or perspectives in regards to the fair assessment of students who are in beginning stages of language development.

woonglim@unm.edu

Interrupting the Dominant Discourse: Seeing Children's Mathematics and Interrogating Manifestations of Whiteness and Colorblindness	Andrew Gatza & Erika Tillema	6-8	Grande Ballroom E
---	------------------------------	-----	-------------------

This session presents one study with middle grades students that explores mathematical learning and problematizes societal messages students of color often receive regarding race and mathematics, which influence how they position themselves and are positioned by teachers. Come engage in dialogue on creating meaningful mathematical interactions and interrupting deficit-thinking perspectives.

agatza@iupui.edu , etillema@iupui.edu

Using Multilingual Resources for Learning Probability: A Rich Research-based Example of Language and Culture Dynamics and Resources	Larry Lesser & Amy Wagler	9-12, College	Grande Ballroom F
---	---------------------------	---------------	-------------------

High school and college instructors teaching probability to English learners will appreciate learning various multilingual resources. Our case study (to appear in November 2016 *Statistics Education Research Journal*) of using the NLVM coin-flipping applet revealed insights about misconceptions, language and culture, as well as how students' language can be a resource.

lesser@utep.edu, awagler2@utep.edu



Saturday, June 25, 2016

1:30-2:00

Innovate Session



NATIONAL COUNCIL OF
TEACHERS OF MATHEMATICS

Information and Feedback Session for Those Considering Writing for the <i>TODOS</i> Journal Teaching for Excellence and Equity in Mathematics	Larry Lesser, Marta Civil, Cynthia O. Anhalt, & TEEM Editors/ Editorial Board	General	Grande Ballroom C
---	---	---------	-------------------

This session targets teachers with insights and ideas worth sharing beyond their school but who may lack experience putting it into publishable form. Researchers also interested in learning more about the journal should attend the session. After overviewing the steps of identifying a topic, doing basic literature search, and organizing a paper's sections, we'll give you a chance for feedback from *TEEM* Editors.

Nana y Yo y las Matemáticas: Engaging children, Caregivers, and Facilitators in Mathematics Learning in Community-Based Preschools	Nuria Jaumot-Pascual	General	Grande Ballroom E
--	----------------------	---------	-------------------

Learn about how a community-based preschool engages children, caregivers, and facilitators in mathematics learning by supporting caregivers through modeling appropriate questions and interactions, by providing accessible mathematics activities, and by building connections between preschool and home.
nuria_jaumot-pascual@terc.edu

Reading and Writing in Learning Mathematics	Vijaya Gompa	K-12	Grande Ballroom F
---	--------------	------	-------------------

The goal of the presentation is to engage the participants in reading and writing to enhance mathematical abilities in students. We will consider how teachers can explore children's home experiences as a means of incorporating mathematical concepts into their reading and writing practices and to help their students to feel connected to their learning.
vgompa@troy.edu

2:00-2:15

Break

Saturday, June 25, 2016

2:15-3:30

Kay Gilliland Equity Series

Fostering Rigor in Mathematics for ALL Students	Don Balka	K-8	La Valencia A
---	-----------	-----	---------------

A rigorous mathematics program is part of TODOS Goal 1. What does that mean for the middle grades? Participants will be engaged with tasks and accompanying manipulatives that enhance the learning of mathematics through rigor.
donbalka@sprintmail.com



Actions to Achieve Access, Equity, and Excellence!	Matt Larson	General	La Valencia B
--	-------------	---------	---------------

Much of what has been traditionally labeled the "achievement gap" is more accurately labeled the "opportunity gap" -- manufactured by schools through their practices, policies, and procedures. This session will outline actions that can be taken to close the opportunity gap to support mathematical success for all.
mattlarson94@gmail.com



Exploring Communication Challenges Across Cultures	Nora G. Ramirez & Bob McDonald	General	Grande Ballroom A
--	--------------------------------	---------	-------------------

Join us for a game that explores the relationship between communication and cultures. Experience some of the challenges faced by individuals from a non-dominant culture. Reflect, discuss and consider your next steps based on this experience.
nora.ramirez91@gmail.com
bob.mcd@me.com



Saturday, June 25, 2016

2:15-3:30

Kay Gilliland Equity Series

Student Voices: Let Them be Heard	José Franco	K-12	Grande Ballroom B
<p>Besides being an equity issue, why is it important for all student voices to be heard? What does that look like? How do we create an environment where students have the opportunity to share their thinking, and their peers have time to ask questions or give them critical feedback? If you're curious, please join us so we can discuss this issue and hear YOUR voices, thoughts, and ideas.</p> <p>jfranco@wested.org</p>			
Building Relationships that Foster Equity and Rigor in Mathematics Classrooms	Diane Kinch	General	Grande Ballroom E
<p>This session will engage participants in relationship building activities that foster equity and rigor in mathematics in a language rich environment wherein mutual respect is developed through collaborative learning while engaging in meaningful, high cognitive demand, mathematical thinking and academic discourse.</p> <p>dokinch@gmail.com</p>			
Leading for Equity in Mathematics Education	John Staley	General	Grande Ballroom F
<p>“Where am I in leading for equity in mathematics education?” “What actions can I take to truly make a difference for more students?” During this session we will unpack key components of the Mathematics Education Leadership framework so you can take your equity leadership to the next level.</p> <p>jstaley@bcps.org</p>			

3:30-4:00

Closing Remarks and Door Prizes

Grande Ballroom C-D

The Research Council on Mathematics Learning (RCML) extends our warm regards and congratulations to our TODOS colleagues on another successful conference!

As the missions of TODOS and RCML overlap, we extend an invitation to those who have research manuscripts or are interested in additional dissemination opportunities through publications and/or conferences. RCML's *Investigations in Mathematics Learning* (IML) journal publishes research efforts designed to understand and/or influence factors that affect mathematics learning. RCML's annual conference provides opportunities to network and disseminate information and ideas, including an opportunity to make a presentation and possibly publish in the Conference Proceedings. The RCML's 44th Annual Conference will be held in Ft. Worth, March 2 – 4, 2017. Contact information on RCML including how to submit manuscripts to IML or a proposal for presentations to the annual meeting (when available) is on the organization homepage, www.rcml-math.org.

We look forward to hearing from you.

*Thanks to the TODOS 2016
Conference Committee members
for all of their time and effort
in organizing the second
TODOS Conference!
Congratulations!*

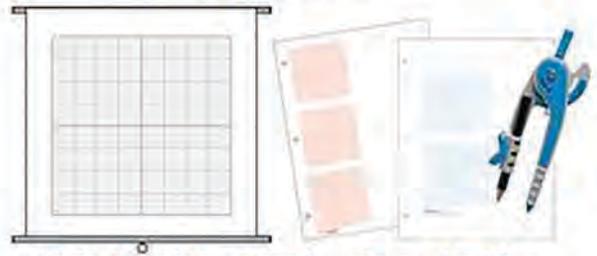
*Susie W. Håkansson, Ph.D.
Immediate Past-President
TODOS Mathematics for ALL*

GEYER

Instructional Products *since 1960*

Math tools & classroom essentials, all in one place!

Teachers call us "The Graph Paper Company" and we're proud of that!



Static cling grids, grid lap boards, graph stickers, protractors & more!



Geyer Exclusive! Multicultural Math Posters

Eye-catching graphics coupled with historical information, each poster showcases mathematics of a particular culture or region. The perfect resource to compare present-day methods of computation to those of our ancestors and how mathematical discoveries changed cultures and society. 24" x 36" posters are so beautiful, you'll want to frame them! Available individually, or as a complete set of all 16 posters.

913900	China	\$9.95	913915	Russia	\$9.95	913921	Aztecs	\$9.95	913912	United States	\$9.95
913901	Japan	\$9.95	913903	Africa	\$9.95	913919	Babylon	\$9.95	913904	Navajo	\$9.95
913914	Korea	\$9.95	913906	Arabia	\$9.95	913918	Inca	\$9.95	913920	Ireland	\$9.95
913905	India	\$9.95	913913	Egypt	\$9.95	913902	Maya	\$9.95	913907	Europe	\$9.95
502648	Complete Set	\$139.95									



Mathematics Leadership in a Time of Change: Building Leaders at all Levels



NCSM is striving to provide year-long professional learning opportunities that follow the theme of Mathematics Leadership in a Time of Change: Building Leaders at all Levels utilizing It's Time and PRIME resources. Please join us for one or more events!

SUMMER LEADERSHIP ACADEMY	<p>What: Summer Leadership Academy Where: Adlai Stevenson High School, Lincolnshire, IL When: July 18-20, 2016</p>
----------------------------------	--

FALL SEMINARS	<p>What: Phoenix Fall Seminar Where: Phoenix, AZ When: October 25, 2016</p>	<p>What: St. Louis Fall Seminar Where: St. Louis, MO When: November 16, 2016</p>
----------------------	---	--

WINTER LEADERSHIP ACADEMY (NEW)	<p>What: Winter Leadership Academy Where: Atlanta, GA When: December 2-4, 2016</p>
--	--

The Summer Academy is about the Curriculum Leadership Principle; the Fall Seminars will expand on Curriculum Leadership; and the NEW Winter Academy will take on the Teaching and Learning Leadership Principle. Threaded throughout all professional learning opportunities will be shifting mindsets and beliefs about teaching and learning mathematics.



ENGAGING IN THE MISSION OF MATHEMATICS EDUCATION LEADERSHIP

**49TH NCSM ANNUAL CONFERENCE
APRIL 3-5, 2017 • SAN ANTONIO, TEXAS**

TODOS Board Members

President: Diane Kinch

Past President: Susie W. Håkansson

Vice-President: Marta Civil

Executive Secretary: Nora G. Ramirez

Secretary: Rocio Benedicto

Treasurer: Linda Fulmore

Director: Julia Aguirre

Director: Anita Bright

Director: Kyndall Brown

Director: M. Alejandra Sorto

Director: Angela Thompson

Awards: Anette Kitagawa

Conferences: Carol A. Edwards

Elections: Ellen Barger

Member Services: Bob McDonald

Projects: Marta Civil

Research and Publications: Marta Civil

Resources: Susie W. Håkansson

NCTM Representative: Cynthia Hillman-Forbush

TODOS 2016

Conference Committee Chairpersons and Members

Conference Co-Chairs: Silvia Llamas-Flores and Anita Bright

Steering Committee Members: Silvia Llamas-Flores, Anita Bright, Don Balka, Carol A. Edwards, Linda Fulmore, Diane Kinch, Bob McDonald, Nora G. Ramirez, Maggie Hackett, and Jennifer Hendrickson

Program Committee: Sylvia Celedón-Pattichis (Chair), Ed Dickey, Melissa Wilburn, Kathy Eichhorst, Alejandra Sorto, Kyndall Brown, and Kathryn Chval

Budget Committee: Linda Fulmore (Chair), Silvia Llamas-Flores, and Anita Bright

Publication Committee: Heather Lindfors-Navarro (Chair), and Julie Elvick-Mejia

Marketing Committee: Nora G. Ramirez, Carol A. Edwards, Debbie Parslow and Paul Seidler

Logistics Committee: Angela Thompson (Chair), Keli Dungan, Brian Burns, Carol A. Edwards, Tod Shockey, and Andrea Tyson

Registration & Memberclicks: Bob McDonald (Chair), Karie Lattimore, and Christie Erickson

Resource Committee: Bob McDonald (Chair), Diane Kinch, and April Knippen

Onsite Welcoming Committee: Bob McDonald and Sarah Clarkson

NOYCE Committee: Mary Bouley (Chair), Maggie Hackett, Annette Kitagawa, and Tabetha Finchum

Student Awards Committee: Socorro Tapetillo, Annette Kitagawa, Jennifer Hendrickson, and Margaret Hackett

MATHEMATICS EDUCATION Ph.D. PROGRAM

THE
GRADUATE
COLLEGE

Experience Radical Math

Integrating Mathematics & Pedagogy

Doctoral Graduates Will:

- ◆ Have a well-balanced foundation in mathematical content
- ◆ Be able to link mathematics content to pedagogy
- ◆ Conduct original research in mathematics education
- ◆ Be sensitive to issues of equity and access in their teaching and research

Financial Assistance

Most doctoral students can receive financial assistance from the Department of Mathematics by working as an instructional assistant, research assistant or graduate assistant. Instructional and graduate assistants receive \$26,780 for nine months (fall and spring semesters). Compensation for research assistants depends on the type of research grant.

FALL 2016
Positions Available

Call 512.245.3427 for details.

Find Us Online At:

math.txstate.edu/degrees-programs/phd.

“Like” us on facebook - Texas State University: Department of Mathematics

Follow us on Twitter: @TxStateMath

Contact
Graduate Advisor
Department of Mathematics
Phone: 512.245.3427
E-mail: mathgrad@txstate.edu

TEXAS  STATE
UNIVERSITY[®]

The rising STAR of Texas

MEMBER THE TEXAS STATE UNIVERSITY SYSTEM

gradcollege.txstate.edu

math.txstate.edu

TODOS: Mathematics for ALL

www.todos-math.org

TODOS: Mathematics for ALL is a mathematics equity organization that was established in the years 2000 to 2003 through initial efforts from the Equity and Diversity Advisory Committee (EDAC) of the National Council of Teachers of Mathematics (NCTM). At NCTM's annual meetings, 2001 and 2002, there were EDAC-organized sessions on issues pertaining to teachers of Hispanic/Latin@ students. As a result of these sessions a group of very committed educators worked to hold a founding meeting in Tempe, Arizona, in February 2003. This initial meeting led to the formation of TODOS; appointing officers, establishing the name, mission statement, and goals, as well as working on the TODOS Constitution and TODOS By-Laws. The current mission and goals are as follows:

The mission of TODOS: Mathematics for ALL is to advocate for equity and high quality mathematics education for all students— in particular, Latina/o students.

Five goals define the activities and products of TODOS: Mathematics for ALL:

1. To advance educators' knowledge and ability that lead to implementing an equitable, rigorous, and coherent mathematics program that incorporates the role language and culture play in teaching and learning mathematics.
2. To develop and support educational leaders who continue to carry out the mission of TODOS.
3. To generate and disseminate knowledge about equitable and high quality mathematics education.
4. To inform the public and influence educational policies in ways that enable students to become mathematically proficient in order to enhance college and career readiness.
5. To inform families about educational policies and learning strategies that will enable their children to become mathematically proficient.

In an effort to fulfill the mission and goals of TODOS: Mathematics for ALL, we are proud to host the conference, TODOS 2016 Ensuring Equity and Excellence in Mathematics for ALL. The conference is being held June 23 - June 25, 2016 at the Scottsdale Plaza Resort in Scottsdale, Arizona. The TODOS organization looks forward to continuing the education and professional development of educators who are committed to providing equitable, high quality mathematics for ALL.



CPM EDUCATIONAL PROGRAM

Grade six through calculus mathematics in English and Spanish

CPM EDUCATIONAL PROGRAM supports and empowers the mathematics education community through exemplary curriculum, comprehensive professional development, and leadership.

- + written by a consortium of teachers and professors
- + student-centered and problem-based lessons
- + aligned with CCSSM
- + supporting teachers through free professional development
- + nonprofit and self published
- + over 25 years of curriculum experience

MORE MATH FOR MORE PEOPLE

Join Sharon Rendon for her session, "Empowering Students to Make Connections Between Mathematical Representations" to see CPM in action!
Friday, June 24, 2016 at 3:00 PM in Valencia A.



CPM EDUCATIONAL PROGRAM
an educational 501(c)(3) nonprofit



9498 Little Rapids Way
Elk Grove, CA 95758
209.745.2055
Visit us at CPM.ORG/cpminfo





NUM FU

BECOME A MASTER OF THE BASIC FACTS

Help your children practice their basic number facts with Num Fu, ORIGO Education's suite of mathematics apps. The 4 number fact apps from ORIGO are a fun way for students to practice and master the basic facts. Download the **FREE** addition app and become a master today!



Professional Development Certificate

TODOS 2016

Ensuring Equity and Excellence in Mathematics

This Certificate for 20 Credit Hours of
Professional Development
Is Awarded To

June 23, 2016 – June 25, 2016

Aline Kinch

Diane Kinch, TODOS President



Mathematics Education Through the Lens of Social Justice: Acknowledgment, Actions, and Accountability

*A joint position statement from the
National Council of Supervisors of Mathematics and
TODOS: Mathematics for ALL*

Our Position

The National Council of Supervisors of Mathematics (NCSM) and TODOS: Mathematics for ALL (TODOS) ratify social justice as a key priority in the access to, engagement with, and advancement in mathematics education for our country's youth. A social justice stance requires a systemic approach that includes fair and equitable teaching practices, high expectations for all students, access to rich, rigorous, and relevant mathematics, and strong family/community relationships to promote positive mathematics learning and achievement. Equally important, a social justice stance interrogates and challenges the roles power, privilege, and oppression play in the current unjust system of mathematics education—and in society as a whole.

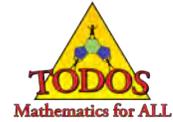
NCSM and TODOS understand that moving forward with social justice demands change in institutional structures, teaching and learning environments, community engagement practices, and individual actions. Incremental approaches to address urgent calls for action have made little difference in how many children experience mathematics in our nation's schools. This is repeatedly documented by the disparities in learning opportunities and outcomes in mathematics education based on race, class, culture, language, and gender. Immediate and transformative change is necessary. These changes must occur in multiple settings and at multiple levels including classrooms, district offices, school boards, universities, legislatures, and communities.

Three components are needed for a just, equitable, and sustainable system of mathematics education for all children. There must be acknowledgment of the unjust system of mathematics education, its legacy in segregation and other forms of institutional systems of oppression, and the hard work needed to change it. The actions taken must be driven by commitments to re-frame, re-conceptualize, intervene, and transform mathematics education policies and practices that do not serve to promote fair and equitable mathematics teaching and learning. And there must be professional accountability to ensure these changes are made and sustained. This is the challenge and work of social justice in mathematics education to do right by our children and move forward together.

What Is Social Justice in Mathematics Education?

To view the joint position statement published by TODOS and the National Council of Supervisors of Mathematics (NCSM) in its entirety visit our webpage at: <http://www.todos-math.org/socialjustice>.

Acknowledgements



TODOS: Mathematics for ALL greatly appreciates the contributions of:

Name	Contact
Casio	http://www.casio.com
Didax	http://didax.com
ETA hand2mind	http://www.hand2mind.com/
National Council of Teachers of Mathematics (NCTM)	http://www.nctm.org
Texas Instruments	http://www.ti.com
University of Arizona Mathematics Department	http://math.arizona.edu

Noyce Foundation

TODOS 2016 Conference is co-sponsored by NSF-funded Arizona Master Teachers of Mathematics (AZ-MTM), award #1035330. The goal of the Robert Noyce grant, Arizona Master Teachers of Mathematics (AZ-MTM), is to create Master Teachers who will provide school, district, and state- level leadership in K-8 mathematics (NSF award #1035330). The AZ-MTM is a program that provides extensive training in the leadership of professional learning communities, analysis of authentic artifacts of practice, coaching and mentoring strategies, equity in mathematics teaching and learning, organizational structures and systems thinking, and pre- service teacher education. The AZ-MTM is a partnership among (1) the University of Arizona Department of Mathematics and College of Education, (2) the Tucson Unified School District, (3) the Sunnyside School District, (4) the Pima County Regional Support Center, and (5) the Arizona K-12 Center.

