

POST CONFERENCE SURVEY REPORT

2012 Research in Mathematics Conference

“Mapping the Future of Mathematics Success”

Friday, February 24, 2012



SMU

ANNETTE CALDWELL SIMMONS
SCHOOL OF EDUCATION
& HUMAN DEVELOPMENT

With Generous Support from:

**The Meadows
Foundation**

CONFERENCE AGENDA

Mapping for Mathematics Success February 24, 2012

- 8:30 a.m. Registration and Continental Breakfast
- 9:00 a.m. Welcome from Leanne Ketterlin Geller & The Meadows Foundation
Plenary Presentation Panel – Moderator: Yolette Garcia, Crum Auditorium
Importance, Value & Use of School Mathematics
 Panelist: Jamai Blivin, Tammy Richards, Alejandra Sorto
- 10:15 a.m. Break
- 10:30 a.m. Breakout Sessions
Content – Session Chair: Savannah Hill, Classroom 100
Systems-Level Content Development: Establishing Learning Progressions
 Janie Schielack
 Nick Wasserman

Assessment – Session Chair: Braden Hoelzle, Classroom 120
Using Data to Improve Teaching & Learning: Practical Approaches
 Les Black
 Leanne Ketterlin Geller
- 11:45 a.m. Lunch
Keynote Address – Session Chair: Dean David Chard
Working Towards a Professional Mathematics Teaching Community
 Sybilla Beckmann
- 1:15 p.m. Breakout Sessions
Elementary School – Session Chair: Cary Jim, Classroom 100
Instructional Design Considerations for Differentiation for Intervention & Extension
 Diane Bryant
 Kathleen Jungjohann

Middle School – Session Chair: Lindsey Perry, Classroom 120
Instructional Design Considerations for Differentiation for Intervention & Extension
 Sharon Benson
 Lindy Crawford
- 2:30 p.m. Break & Registration for Prize Drawing

- 2:45 p.m. **Panel Discussion** – Session Moderator: Yolette Garcia, Crum Auditorium
Prioritizing Initiatives to Support Mathematics Achievement
Panelists: Everly Broadway, Lindy Crawford, Rosemary Perlmeter, Sharri Zachary
- 3:45 p.m. Adjournment, Prize Drawing & Closing Remarks
Leanne Ketterlin Geller

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FOR PREVENTING EDUCATIONAL RISK

EXECUTIVE SUMMARY

Research in Mathematics Education (RME) is an outreach and research unit with highly specific and targeted goals aimed at enriching the quality of mathematics education in the North Texas region. Located in Dallas, Texas, and newly formed in 2011 under the direction of Dr. Leanne Ketterlin Geller at the Annette Caldwell Simmons School of Education and Human Development at Southern Methodist University, the unit and associated researchers are passionately driven to conduct high-quality, evidence-based research that will support the instructional quality of teachers and form clear paths to decisions for administrators to lead at the district, campus, and state levels.

With research projects including an explicit and comprehensive kindergarten math curriculum, a number of technology-based applications and assessments for elementary and middle school children, as well as professional outreach in collaboration with the Texas Education Agency; Research in Mathematics Education at SMU is on the leading edge of math education today.

The Research-to-Practice conference is the unit's first public foray bringing dynamic research not only into the hands of teachers and administrators, but setting forth practical applications for the classroom. As part of RME's commitment to listening to the conference audience and incorporating feedback into future planning, a post-conference survey was administered to all 144 participants with 74 (51%) responding. This report includes a detailed analysis of the survey results, but an overview is bulleted below:

- ❖ 86% of respondents rated the conference as very good or excellent compared to other conferences they've attended.
- ❖ 78% of respondents indicated the conference was valuable or very valuable to improving their practice.
- ❖ A remarkable **97%** of respondents said they were satisfied or very satisfied with the speakers and presenters, and **87%** were satisfied or very satisfied with the content and its ability to make a *significant difference* in their teaching practice.
- ❖ 84% of respondents would recommend the conference to others, and 57% plan on attending in 2013.

Dedicated mathematics teachers in the North Texas (and beyond) region are allowed a venue to collaborate, share experiences, solve problems, and generate excitement in a field that can provide a wealth of opportunity and immediate impact to a diverse mix of students. The value of this experience can be measured by conference attendance and the span across various districts. What perhaps cannot be measured, but is of utmost importance, is placing relevant mathematics education research at the forefront of the education community.

SPEAKER BIOGRAPHIES

Speaker Biographies

Research in Mathematics Education (RME)

Research to Practice Conference

February 24, 2012



Sybilla Beckmann, Ph.D.

Professor, Department of Mathematics

University of Georgia

Sybilla Beckmann is the Josiah Meigs Distinguished Teaching Professor of Mathematics at the University of Georgia. She has a Ph.D. in mathematics from the University of Pennsylvania and taught at Yale University as a J. W. Gibbs Instructor of Mathematics. Dr. Beckmann's research background includes Arithmetic Geometry, but her current main interests are the mathematical education of teachers and mathematics content for students at all levels, with specific focus on PreK through Grade 8.

Dr. Beckmann developed several mathematics content courses for prospective elementary school teachers at the University of Georgia and wrote a book for such courses, *Mathematics for Elementary Teachers*, published by Pearson Education, now in a third edition. She is interested in helping college faculty learn to teach mathematics content courses for elementary and middle grades teachers and she works with graduate students and postdoctoral fellows toward that end. As part of this effort, Dr. Beckmann directs the *Mathematicians Educating Future Teachers* (MEFT) component of the University of Georgia Mathematics Department's VIGRE II grant.

Dr. Beckmann was a member of the writing team of NCTM's *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics*, was a member of Committee on Early Childhood Mathematics of the National Research Council and co-author of its report, *Mathematics Learning in Early Childhood: Paths Toward Excellence and Equity*, has worked on the development of several state mathematics standards, and was a member of the mathematics writing team for the *Common Core State Standards for Mathematics*. Several years ago Dr. Beckmann taught an average 6th grade mathematics class every day at a local public school in order to better understand school mathematics teaching. Dr. Beckmann has won several teaching awards, including the General Sandy Beaver Teaching Professorship awarded by the College of Arts and Sciences at the University of Georgia, the Josiah Meigs Distinguished Teaching Professorship, which is the highest teaching honor at the University of Georgia, and the Regents' Teaching Award from the University System of Georgia.



Sharon Benson, Ed.D.

Director, Mathematics Solutions

Region 4 Education Service Center

Sharon Benson is the director of Mathematics Services at Region 4 Education Service Center in Houston, TX. She is responsible for the development of services and products that meet the needs of mathematics teachers and their students. During her tenure at Region 4, Sharon has had the opportunity to work systemically with districts and campuses through curriculum and assessment development, professional learning opportunities, and instructional coaching. She has led the development of numerous statewide projects, including recent efforts related to Elementary Students in Texas: Algebra Ready (ESTAR) and the Algebra I and II End-of-Course Success academies as well as provided input to Middle School Students in Texas: Algebra Ready (MSTAR) efforts. Prior to joining Region 4, Sharon taught middle school and high school math to students in at-risk situations in Cypress-Fairbanks ISD. She also served as an interdisciplinary team leader and department chair. Sharon has taught undergraduate and graduate students through the University of Houston's College of Education. Sharon has presented at local, state, and national conferences on topics including literacy in the math classroom, differentiation, algebraic and proportional reasoning, and motivation.

Sharon earned a B.A. in mathematics at the University of Virginia and an M. Ed. and an Ed.D. in Curriculum and Instruction with a focus on mathematics education at the University of Houston. Sharon's interests include proportional reasoning of students and teachers, applications of Tier I and II interventions, preparation of teachers and students for successful Algebra II experiences, and the encouragement of teachers. She enjoys recruiting her husband of 15 years, 12 year old son, and 4 year old daughter to answer interesting math questions.



Les Black, Ph.D.

Principal

Charles M. Blalack Middle School

Carrollton-Farmers Branch ISD

Watt Lesley Black, Jr. is currently in his 8th year as the principal at Charles M. Blalack Middle School in Carrollton-Farmers Branch ISD. During his tenure, he led Blalack to exemplary status, the only CFB secondary campus during the TAKS testing era to earn such a rating. The centerpiece of the work at Blalack has been the creation of a process to allow teachers to collaboratively examine performance data and set appropriate goals. The process has allowed Blalack to maintain recognized or exemplary ratings and meet AYP in each year of Dr. Black's tenure. Additionally, Blalack has earned multiple recognitions as a top performing school by the Texas Business and Education Coalition, Just for Kids, and Texas Monthly.

Prior to becoming the principal at Blalack Middle School, Dr. Black worked at the high school level, starting his career as a high school German and Social Studies teacher in Garland I.S.D. before joining CFBISD in 1997 as a high school assistant and associate principal.

Dr. Black holds a Ph.D. in Educational Leadership from University of North Texas. In 2003, he co-authored an article in West's Education Law Reporter with Dr. Frank Kemerer of the University of San Diego Law School, entitled "Legally Defensible Approaches to Racial Diversity in Charter School Enrollments." In 2008, his research in the area of equal protection law led to the publishing of his first book, entitled "Public School Diversity and Affirmative Actions Admissions."

In addition to being a practicing school administrator, Dr. Black has done adjunct teaching at the University of North Texas and is currently an adjunct professor at SMU. Additionally, he has developed and written courses for the American College of Education, where his work was utilized in online courses for Barat College in Illinois and Lamar University in Texas. He also wrote and appeared in video lectures, which provided online content for the Illinois cohort.



Jamai Blivin

President and Chief Executive Officer

Innovate+Education

Jamai Blivin is the President and CEO of Innovate+ Educate. Innovate+Educate is national non-profit formed in 2009 in partnership with Intel and Lockheed Martin Corporation. Blivin approached the companies to form the organization, believing that industry alignment for STEM and workforce development was critical to solve the issues the U.S. faces to develop an innovation economy. Since that time, Innovate+Educate has become a leading voice across States for industry alignment to advance STEM education and workforce development across the States.

Jamai has consulted and worked extensively with State programs, IT Companies, Higher Ed Institutions, and K-12 Systems to promote STEM education and industry partnerships in STEM. Blivin spent 17 years in the investment-banking field before retiring to pursue her passion for education and industry partnerships. After teaching middle school in Little Rock, Arkansas and Durham, North Carolina (2000-2005) Blivin assumed the position as Education Foundation Director at the North Carolina Technology Association in Raleigh, NC and led the education efforts statewide to advance STEM education with industry partners. She returned to Santa Fe in 2008 (where she grew up) to take a position at NMSU under the New Mexico Learning Network, serving as Outreach Director before launching Innovate+Educate.

Jamai is a frequent speaker at industry conferences and educational conferences sharing her passion and vision for meaningful industry partnerships to advance STEM and workforce development at the State level. Since she launched I+E, she has been a speaker at events for the U. S. Department of Education, Intel Corporation's Visionary Conference, the National Governor's Association Center for Best Practices STEM, the Council of State Governments, several State conferences on STEM and the Massachusetts' STEM Council convening to launch the STEM public-private partnership in Massachusetts with the Lt. Governor's office. In 2010, Innovate+ Educate was nominated for and received the New Mexico Business Weekly's "Small Business Heavyweights" award for their success in developing the first public-private partnership in New Mexico to advance STEM and workforce (the NM STEM Network).

Jamai holds a BSBA and MBA in Finance from the University of Arkansas. She resides with her husband and children in Santa Fe, New Mexico.



Everly Broadway, Ed.D.

Statewide Mathematics Coordinator

Texas Education Agency

Everly Broadway currently serves as the Statewide Mathematics Coordinator at the Texas Education Agency in Austin, TX. She holds a B.S. in Mathematics and Secondary Education from Baylor University in Waco, TX, an M.A. in Mathematics Education from the University of Texas at Austin and an Ed.D. in Curriculum and Instruction from the University of North Carolina at Chapel Hill. Dr. Broadway's dissertation topic was "African American Achievement in High School Mathematics".

For 14 years, Dr. Broadway taught middle and high school mathematics in California, Texas, and North Carolina before becoming the Director of Mathematics for Durham Public Schools, an urban district of 32,000 students in Durham, NC. Under Dr. Broadway 's leadership, the teachers and administrators in Durham participated in a six-year Local Systemic Change (LSC) project in mathematics, Realizing Achievement in Mathematics Performance (RAMP) Project (NSF Award #9819542). After ten years in Durham, Dr. Broadway transitioned to the state level in North Carolina to serve as the Section Chief for Mathematics and the Director of the MSP program at the North Carolina Department of Public Instruction. After 4 years in the North Carolina state agency, she returned to her home state of Texas to work as the Director of Mathematics. Dr. Broadway specializes in practical solutions that blend state and district leadership with local leadership and implementation. Dr. Broadway is passionate about bringing people together around the common goal of success for all students in mathematics. She believes in working hard while having lots of fun too.



Diane Bryant, Ph.D.

Professor, Department of Special Education

The College of Education

The University of Texas at Austin

Diane Pedrotty Bryant is a Professor of Special Education at The University of Texas at Austin, a Cissy McDaniel Parker Fellow, and project director for the Mathematics Institute for Learning Disabilities and Difficulties in The Meadows Center for Preventing Educational Risk. She is the Principal Investigator on an early numeracy, response to intervention grant from the Institute of Education Science and Principal Investigator on the 3-Tier Mathematics Elementary Intervention Project from the Texas Education Agency.

Dr. Bryant along with her colleague in Mathematics Education at The University of Texas were chosen to participate in the NSF funded “Beginning Substantive Collaboration between Mathematics Education and Special Education Symposium: Teaching Mathematics to Students within the RtI Process.” She is the author/co-author of books, tests, and research articles that focus on educational interventions for improving the mathematics performance of students with learning disabilities. Her research articles represent over 15 years of working collaboratively with school districts to conduct research by working with teachers, students, parents, and administrators. She is the co-editor of the *Learning Disability Quarterly* and a reviewer for prominent journals in special education. She has served as the President of the Council for Learning Disabilities and on various committees associated with other professional organizations.



David J. Chard, Ph.D.

Leon Simmons Dean

Annette Caldwell School of Education and Human Development

Southern Methodist University

Dr. Chard assumed the academic and administrative leadership role of the Annette Caldwell Simmons School of Education and Human Development in the fall of 2007. For the two years preceding his appointment as an SMU Dean, Dr. Chard served as Associate Dean for the College of Education at the University of Oregon. He has held faculty appointments at both Boston University and the University of Texas at Austin and in the late 1990s served as Director of the Texas Center for Reading and Language Arts at UT Austin. Earlier in his career, Dr. Chard served as an educator in the Peace Corps in Lesotho, Africa.

Dean Chard earned a Ph.D. in special education at the University of Oregon in 1995 and a B.S. in mathematics and chemistry education from Central Michigan University in 1985. He was drawn to the field of special education while teaching mathematics and chemistry for nearly 10 years in high school classrooms, where he frequently encountered students who struggled with math and science concepts resulting from difficulties with reading, language, and vocabulary development. As a consequence of these experiences, Dr. Chard focused his subsequent scholarship and research on the role of instruction in the development of basic literacy and numeracy skills for students with learning disabilities or those at-risk for school failure.

Dean Chard has co-directed a number of federally funded model demonstration projects and research studies on the role of instruction in the development of literacy and numeracy skills and has directed or co-directed several state and regional grants and contracts that have examined the improvement of schools and student achievement through the development of teachers' knowledge and practice. Dean Chard's research and development projects have been awarded more than \$11 million in federal, state, and private grants.

Dr. Chard has published more than 30 research articles; co-authored 12 books; contributed 12 book chapters; and either written or co-written 18 technical reports, monographs, and training guides. A frequent presenter at national and international education conferences, Chard has taught courses on behavior management, special education reading and writing, learning disabilities, and special education law. He has served on more than 30 doctoral dissertation committees in special education, communication disorders, literacy and language, school psychology, and cognitive psychology.



Lindy Crawford, Ph.D.

Associate Professor of Special Education

Ann Jones Endowed Chair in Special Education

College of Education

Texas Christian University

Lindy Crawford, Ph.D., is an associate professor of Special Education and the Ann Jones Endowed Chair in Special Education at Texas Christian University (TCU) in Fort Worth, TX. Dr. Crawford engages in research on the validity of large-scale assessments of students with and without disabilities, use of curriculum-based measures in the classroom and effective math interventions. She currently is the principal investigator on a development grant funded by the Institute of Education Sciences (U. S. Department of Education) to research the feasibility and functionality of an online supplemental math curriculum for middle school students with math learning disabilities. Participants for this project include students at Starpoint School, one of two laboratory schools for students with disabilities in the College of Education at TCU. Dr. Crawford also is investigating the effect of “active electronic support tools” such as hyperlinks and audio support on students’ math performance. This project is in collaboration with the Center for Advanced Technology in Education at the University of Oregon. Dr. Crawford has received funding through the U.S. Department of Education’s Office of Special Education Programs, Office of Innovation and Improvement, and Institute of Education Sciences. Her research, conducted through the Alice S. Neeley Special Education Institute, has also been funded by the National Academy of Education and the Colorado Department of Education. Some of her publications appear in *The Journal of Special Education*, *Exceptional Children*, *Remedial and Special Education*, and the *Journal of Learning Disabilities*.



Yolette Garcia

Assistant Dean for External Affairs and Outreach

Annette Caldwell Simmons School of Education and Human Development

Southern Methodist University

Yolette García joined SMU's Annette Caldwell Simmons School of Education and Human Development in 2008 as Assistant Dean for External Affairs and Outreach. She's responsible for identifying and prioritizing community partnerships and projects for the School. She also develops strategies for communications and promotion. Additionally, she teaches media as an adjunct in the Master of Liberal Studies program at SMU.

García comes to her position as a veteran public broadcasting journalist and manager for KERA television and radio, the North Texas public broadcasting station. She served the public broadcasting organization in various capacities for 25 years, including serving as executive producer for KERA and KDTN television, and as an assistant station manager and news director for KERA radio.

She supervised joint Radio and TV journalism projects for local and national broadcast. Aside from providing editorial guidance, she oversaw much of KERA's broadcast outreach, conducted with community partners through town halls, focus groups and screenings.

García is a co-recipient of a 1994 national Emmy Award for "After Goodbye: An AIDS Story," a documentary broadcast nationally on PBS, and a 2006 Lone Star Emmy for "In the American West: Photographs of Richard Avedon, A Twentieth Anniversary Special." In 2002 she was honored by the Press Club of Dallas with the Buck Marryat Award, given for career excellence in journalism.

In addition, she is a three-time winner of KERA's Peter Baldwin Award, given to the employee who has used the greatest initiative to advance the goals and objectives of the organization. She currently serves on North Texas Public Broadcasting's Board of Directors and on the Catholic Charities of Dallas Advisory Board. She also is a member of Town and Gown at SMU.



Kathleen Jungjohann

Senior Instructor, Special Education

College of Education

University of Oregon

Kathleen Jungjohann has over twenty years experience training and supervising preservice and inservice teachers. She currently teaches coursework in reading, math, content area strategies, collaboration, and field-based practices. In addition to her university work, Ms. Jungjohann provides consultation, technical assistance, and instructional supervision in schools and districts both locally and nationally and is a frequent presenter at workshops and conferences focusing on reading, math, and writing and inclusive strategies for special education and at-risk learners. She is co-author of *Teaching Struggling and At-Risk Readers* and a kindergarten mathematics program.

Prior to coming to the University of Oregon, Ms. Jungjohann taught for twelve years with students who were deaf-blind, students with severe, moderate, and mild developmental disabilities, and students with autism, learning disabilities, and behavior disorders at both elementary and middle school levels. She holds an Oregon standard elementary teaching license with endorsements in special education and hearing impaired.



Leanne Ketterlin Geller, Ph.D.

Associate Professor, Department of Education Policy and Leadership

Annette Caldwell Simmons School of Education and Human Development

Southern Methodist University

Leanne Ketterlin Geller is engaged in research and scholarship focused on supporting all students in mathematics education through application of instructional leadership principles and practices. She has served as Principal Investigator for federal, state, and locally funded research grants emphasizing the development of formative assessment procedures in mathematics and valid decision-making systems for students with diverse needs in the general education curriculum.

The context of her research efforts is middle-school mathematics with an emphasis on supporting algebra-readiness. She publishes and presents to audiences focused on research as well as practice in the areas of mathematics education, measurement and assessment, and special education with the intent of broadly disseminating her research findings to make the greatest impact.

Dr. Ketterlin Geller's research is informed by her experiences in K-12 education. She taught high-school science in public schools and is trained as a K-12 administrator. During these experiences, she focused on supporting all students. In addition to teaching advanced placement, college-preparatory, and general science courses, she designed and taught science classes for culturally and linguistically diverse students using principles and techniques of Sheltered Instruction. Also, she served as a coordinator for the AVID (Advancement Via Individual Determination) program that is intended to encourage and provide academic supports for college-bound students from typically underrepresented populations.



Rosemary Perlmeter, J.D.

Founder

Uplift Education

In 1996, Rosemary Perlmeter joined with former mayor of Irving, Morris Parish, and a group of community leaders to found, open and operate North Hills Preparatory as one of Texas' first charter schools. A few years into this project, Rosemary left her position as an executive with Zale Corporation to become the director of North Hills. During her 15 years at Zale, she had served as vice president of real estate and real estate counsel.

After completing a two-year plan, hiring a new head of school and securing a building to hold the growing population of the school, Rosemary became the organization's first director of organizational advancement. She then went on to see the addition of Uplift's first urban campus, Peak Preparatory, and transitioned into her role as the organization's first executive director, a position she held until November 2009.

Today Rosemary serves as a member of the Uplift executive team focusing on advocacy and growth of the organization. Rosemary holds a bachelor's degree and law degree from Southern Methodist University.

Her memberships and affiliations have included the Founding Board of Uplift Education, the founding Board of Las Colinas Medical Center, a Director and officer of the Las Colinas Association, a member of the Education Task Force for West Dallas, the Coalition for Effective Charters and Texas Charter School Association committees on Charter Quality and Charter Advocacy.



Tammy Richards, P.E.

Associate Dean

Lyle School of Engineering

Executive Director

Infinity Project

Institute of Engineering Education, Southern Methodist University

Tammy L. Richards, P.E. is a business executive with a passion for education. Ms. Richards is the Associate Dean of the Lyle School of Engineering at Southern Methodist University and the Executive Director of The Infinity Project in the Institute of Engineering Education at Southern Methodist University, positions she assumed in October 2003.

At Southern Methodist University, Ms. Richards is responsible for operations, enrollment, marketing, communications, and outreach for the Lyle School of Engineering. Her goals include doubling the size of the engineering student population and achieving gender parity at the school. In addition, she is responsible for expanding The Infinity Project, a high school engineering project. Previously, Ms. Richards held marketing and management positions in her career at Texas Instruments, including Vice President of Marketing for TI's Educational and Productivity Solutions (E&PS) business. Ms. Richards was responsible for the marketing strategy for the \$500 million E&PS business.

Ms. Richards has directed educator professional development, educator conferences, market development, and customer service. In addition, Ms. Richards had responsibility for relationship management with leading educational organizations such as the National Council Teachers of Mathematics, the National Science Teachers Association, and the National Science Foundation. Ms. Richards managed and grew the highly successful T3 program, Teachers Teaching with Technology. Her staff organized workshops and seminars for 10,000 teachers per year to help educators successfully integrate handheld educational technology in the classroom. To complement the T3 program, Ms. Richards created the groundbreaking Technology for All Students program – a train-the-trainer program to expand the use of educational technology to urban schools.

Ms. Richards is President of the Board of Head Start of Greater Dallas, a \$40 million non-profit agency. In addition, she is past co-chair and steering team member of the Greater Dallas Chamber Women's Business Conference, a volunteer-run conference for 2000 women. Ms. Richards served on the Advisory Board of the Women's Issues Council for the Greater Dallas Chamber, is a member of the Executive Women's Roundtable, and has completed Leadership Texas and Leadership Dallas.

Ms. Richards received her B.S. in Industrial Engineering from Texas A&M University, summa cum laude, and a MBA from the Harvard Graduate School of Business. She is a Registered Professional Engineer in the state of Texas.



Janie Schielack, Ph.D.

Professor, Department of Mathematics

Texas A&M University

Jane Schielack discovered her love of mathematics in elementary school in Tulsa, Oklahoma, and it continued through high school in Houston, Texas. She received her BS in Education from Texas A&M University in 1975, with certification in Mathematics and English, Grades 1-12. After teaching third grade in Victoria, Texas, Janie earned an MA in Mathematics Education from the University of Texas at Austin in 1979 and became the elementary mathematics consultant at the Texas Education Agency. In 1982, she returned to Texas A&M University and received her Ph.D. in Mathematics Education in 1988 while working as a lecturer in the Department of Mathematics teaching the mathematics courses for elementary and secondary education majors.

Now a Professor in Mathematics and Education at Texas A&M University, Janie has continued her involvement at the state level by working with the Texas Education Agency in developing and revising the state-mandated curriculum in mathematics; making presentations at the state mathematics conference for teachers; and writing and presenting a variety of professional development institutes for in-service teachers.

At the national level, she has authored articles, books, and textbooks focusing on helping children understand mathematics. She has served as the Academic Advisor as well as a writer on several national professional development institutes for elementary and middle school mathematics teachers. Her work with the National Council of Teachers of Mathematics includes participating on the writing team for the *Professional Standards for Teaching Mathematics*, co-editing the *Empowering the Beginning Teacher of Mathematics: Elementary School*, chairing the writing group for *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence*, and editing the *Focus in Mathematics* series for Grades 3-8.



Alejandra Sorto, Ph.D.

Associate Professor, Department of Mathematics

Texas State University

Professor Sorto received her Ph. D. from Michigan State University in 2004. Her research focuses on the preparation of teachers in the area of Statistics and Latin-American multivariate studies of mathematics achievement at large scale. In particular, she is interested in developing instruments to measure content knowledge for teaching and analyzing its effect on student achievement.



Nick Wasserman, Ph.D.

Assistant Professor, Department of Teaching and Learning

Annette Caldwell Simmons School of Education and Human Development

Southern Methodist University

Dr. Nick Wasserman is an Assistant Professor in the Annette Caldwell Simmons School of Education, specializing in Mathematics Education. He received his B.S. in Mathematics from the University of Texas at Austin with the UTeach program and recently matriculated from Columbia University's Teachers College with a Ph.D. in Mathematics Education. Both programs required a strong preparation in pure mathematics, including advanced mathematics topics such as Graph Theory, Topology, Abstract Algebra, Analysis, Statistics, Foundations of Number Systems, etc., and thoughtful application in mathematics education. He taught mathematics for six years at the secondary level, in both a large public school in Austin and a private school in Manhattan, where his teaching included everything from Algebra I to BC Calculus and Finite Mathematics.

Dr. Wasserman received the 2008 R.L. Moore Award for Best Inquiry Lesson from the University of Texas at Austin, and was the 2010 featured Student Spotlight for the Department of Mathematics, Sciences, and Technology at Teachers College. He has also assisted graduate level courses on Mathematics in Elementary Education and has worked with future teachers as a Mentor Teacher and as the Math for America Fellows Program Supervisor. His teaching load at SMU includes graduate mathematics education courses in the school of education and undergraduate mathematics courses in the mathematics department.

Dr. Wasserman's scholarly interests focus on teacher knowledge and development, particularly focusing on the advanced mathematics content knowledge that impacts classroom teaching. Using a sample of beginning teachers, he and a colleague collaborated to compare secondary mathematics teachers' knowledge and training from a traditional and an alternative program to understand how to process of teacher education serves novice teachers. His background from a contemporary teacher-training program such as UTeach as well as a storied program in mathematics education at Teachers College gives him a broad perspective from which to draw. In addition, he has an interest in how the use of technology can influence the secondary mathematics classroom. He has authored articles and presented about productive ways to incorporate technology into the secondary mathematics curriculum and the effects of teacher education on beginning teachers. He also served as the Guest Editor for the Spring 2011 issue of the Journal of Mathematics Education at Teachers College that focused on the Common Core State Standards and Curriculum development.



Sharri C. Zachary

Mathematics Research Coordinator

Research in Mathematics Education

Southern Methodist University

Sharri Zachary received her M.A. in Interdisciplinary Studies from the University of Texas at Dallas and her B.S. in Mathematics Education from Grambling State University. Prior to arriving at SMU, she served as a secondary mathematics facilitator, assisting teachers with curriculum and instructional strategies and student engagement. She has been involved in various curriculum and assessment writing projects. As a high school math teacher, she also tutored students in various subjects and served as a mentor to teachers.

SESSION SUMMARIES

9:30 to 10:15 - Plenary Panel Discussion – Importance, Value & Use of School Mathematics

Led by moderator Yolette Garcia with broad input from Ms. Jamai Bliven, Ms. Tammy Richards, and Dr. Alejandra Sorto, this panel opened the conference with discussion on the state of mathematics education in the United States today and the importance of closing the gap between real world application and success.

Ms. Jamai Blivin, president and chief executive officer of Innovate+Education, presented on the correlation between mathematics performance and successful job execution. Based on the evidence presented from the ACT math skills test the vast majority of Americans cannot perform math effectively in real world applications. Accordingly, they lack the ability to see mathematical relevance in everyday situations, discern the important information, and think critically to apply the appropriate knowledge. Ms. Richards, Associate Dean of the Lyle School of Engineering, discussed the importance of mathematics for subsequent career options, drawing on her experience as a business executive and engineer, but also wove in her perspective as a school board member and the role of supporting education at the local level. Dr. Sorto presented a global perspective, pinpointing issues related to supporting mathematics achievement in international contexts, especially for developing countries. She discussed the impact of mathematics instruction for children who immigrate to the United States as children.

10:30 to 11:45 Content – Systems-Level Content Development: Establishing Learning Progressions

Presented by Dr. Janie Schielack and Dr. Nick Wasserman.

Learning progressions are defined as the vertical articulation of concepts. They describe a progression of knowledge for students in mathematics. A learning progression contains: target learning goals, progress variables that are developed over time, intermediate levels of achievement that progress toward mastery, learning performances at each level, and assessments that measure student development. The levels of the learning progressions should be defined. When they are, we ask ourselves: Where do students start and where are we trying to get them?

The goal of Middle School Student in Texas: Algebra Ready (MSTAR) diagnostic assessment is to build off the universal screener for middle school mathematics. Developed for struggling learners, this tool will enable educators to better understand why students struggle, not what they are struggling with— reportable outcomes of key concepts to learning progressions guide decision-making.

Discussion questions: How would this information be useful at the classroom, campus, and district levels?

Discussion answers:

- At the classroom level, it's important to evaluate the larger picture and distinguish specific areas of intervention. Identify key pre-assessment skills and devote valuable instructional time efficiently on other concepts.

- At the campus level, implementing vertical teams, collaboration within grade level, and strong direction on the most applicable professional development opportunities were noted as the greatest opportunities.
- Sound curriculum, professional development and classroom materials selection can align across a district to create synergistic decision making.

10:30 to 11:45 Assessment – Using Data to Improve Teaching & Learning: Practical Approaches

Presented by Dr. Leanne Ketterlin Geller and Dr. Les Black.

Dr. KetterlinGeller provided a specific *How, What, and Why* framework for using data to guide educational decisions, change educational practice, and build capacity in teachers. Within the *How and What* sections she showed a way in which data supports an ongoing cycle of instructional improvement. This cycle consists of identifying students in need of extra educational support through screeners, gathering more detailed information on these students' misconceptions through diagnostic assessments, analyzing this data to make informed data-based decisions, and then evaluating the results of these decisions through ongoing monitoring. She concluded by providing the *Why* behind using data to guide educational decisions. She presented evidence to show enhanced student achievement for low achieving and special education children when teachers and students used data. The cited meta-analyses showed effect sizes for using data ranging from 0.32 to 0.57.

Dr. Black, principal at Charles M. Blalack Middle School in Carrollton-Farmers Branch ISD, testifies to the significant increase in academic achievement associated with the use of data. In his tenure he witnessed the percentage of students in his school receiving free and reduced lunch increase from 10 to 40 percent. Simultaneously he witnessed his school increase math achievement across all students, and by as much as 20 percent in some sub-populations. He attributes much of this success to the implementation of three primary initiatives: instituting a professional development period for teachers, implementing the instructional improvement process, and implementing instructional rounds. His presentation provided a clear method for using data to drive increased academic achievement.

1:15 to 2:30 Elementary School -Instructional Design Considerations for Differentiation for Intervention & Extension

Presented by Ms. Kathy Jungjohann and Dr. Diane Pedrotty Bryant.

Ms. Jungjohann's presentation focused on evidence-based strategies and best practice instructional designs for struggling students. Two evidence-based practice guides were introduced to the audience for instructional design and a systematic approach to assist struggling students. Participants were exposed to specific math content to aide in providing interventions. Selected recommendations from the *IES Practice Guide of Assisting Students Struggling with Mathematics: Response to intervention for Elementary and Middle Schools* were presented. Participants learned how to select intervention materials, explicit and systematic instruction and RtI strategies such as teaching word problem structures were included, as well as how to use visual representations and practices for math facts.

Dr. Bryant's presentation focused on the potential challenges in implementing interventions for at-risk students with mathematics difficulties and recommendations that address those challenges in the IES Practice Guide of *Assisting Students Struggling with Mathematics: Response to Intervention for Elementary and Middle Schools*. Dr. Bryant explored the challenges and provided recommendations to the participants. The challenges focused on efficiency in screening all students to identify risk status, instructional materials aligning with district timelines, instructional delivery components, and scheduling and grouping for interventions. She also provided multiple online resources for participants to use within their classroom.

1:15 to 2:30 Middle School – Instructional Design Considerations for Differentiation for Intervention & Extension

Presented by Dr. Sharon Benson and Dr. Lindy Crawford.

Dr. Benson focused on Tier 1 strategies that help students walk through the door of success with mathematics. She highlighted extension strategies, such as providing contextual applications, offering a deeper look into the structure of mathematics, and considering exceptional talent. Additionally, Dr. Benson discussed intervention strategies, such as pre-teaching vocabulary, making mathematics explicit, modeling and providing students with feedback, and providing students with adequate opportunities to practice. These strategies were modeled by investigating a sample mathematics task.

Dr. Lindy Crawford presented on Tier 2 and Tier 3 strategies, focusing her recommendations on the IES Practice Guides *Developing Effective Fractions Instruction for Kindergarten Through 8th Grade* and *Assisting Students Struggling with Mathematics: Response to Intervention (RTI) for Elementary and Middle Schools*. She highlighted the importance of progress monitoring and showed a variety of different graphical representations of student data that might be helpful in monitoring students' progress. She also stressed the importance of teaching mathematics at the conceptual level in Tiers 2 and 3. Additionally, she discussed multiple free, online resources for teachers to use with their students.

2:45 to 3:45 – Panel Discussion – Prioritizing Initiatives to Support Mathematics Achievement

This panel was led by moderator Yolette Garcia and included Dr. Everly Broadway, Dr. Lindy Crawford, Ms. Rosemary Perlmeter and Ms. Sharri Zachary.

This discussion of this panel focused on how to bring the best practices illustrated in the day's conference to the classroom. The panel acknowledged the overwhelming task math teachers face today in preparing their students for standardized tests.

At the end of the discussion, the panel took questions from the audience. Many of the questions were directed to Dr. Broadway, the Statewide Mathematics Coordinator for Texas Education Agency (TEA), regarding the changes being implemented by TEA to the mathematics standards for the STARR Test.

POST-CONFERENCE SURVEY SUMMARY

On Friday, February 24, 2012, 144 mathematic educators and researchers attended the 1st Research in Mathematics Conference on the campus of Southern Methodist University. A total of 74 conference attendees provided feedback in the form of a post-conference survey administered using the on-line survey tool “Survey Monkey” (www.surveymonkey.com). The survey contained 30 questions (24 multiple-choice and 6 open-ended response questions).

SECTION I: MULTIPLE-CHOICE ITEMS

The 24 multiple-choice questions can be subdivided into three categories: (a) Conference Organization Feedback, (b) Conference Session Feedback, and (c) Overall Conference Feedback.

CONFERENCE ORGANIZATION FEEDBACK

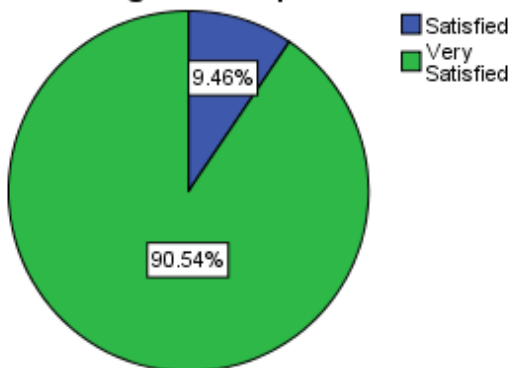
Seven questions or Likert response statements relate to the organization of the conference:

- 1) How satisfied were you with the registration process?
- 2) How satisfied were you with the conference materials provided?
- 3) How satisfied were you with the conference facilities?
- 4) This conference was held at a convenient time of the year.
- 5) Conference staff was helpful and courteous.
- 6) The conference was well organized.
- 7) Getting the fee reimbursed for my substitute was a key factor in my deciding to attend this conference.

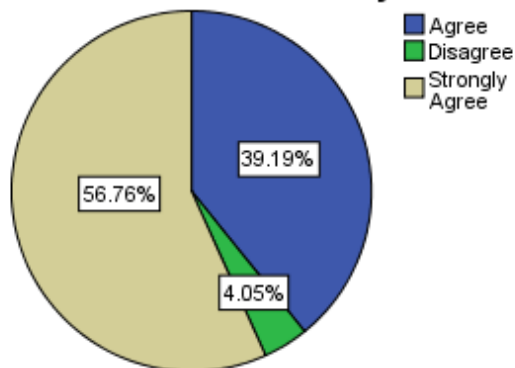
The responses to these questions were overwhelmingly positive with almost all respondents indicating that they were either satisfied or very satisfied for questions one to three. For the Likert response statements (4-6) the respondents almost unanimously indicated that they agree or strongly agreed with the statements. The only exception related to the time of year in which the conference was held. Four percent of the respondents indicated that the time of year

was not convenient. The open-ended response items reveal that this inconvenience was related to the proximity to the upcoming STAAR testing. The responses to question seven indicated that over 70 % of the respondents felt that the fee reimbursement was a key factor in deciding to attend this conference.

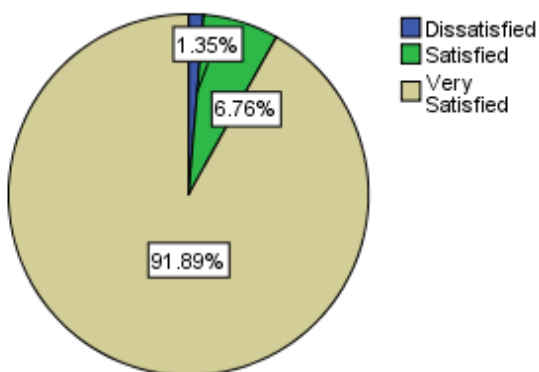
How satisfied were you with the registration process?



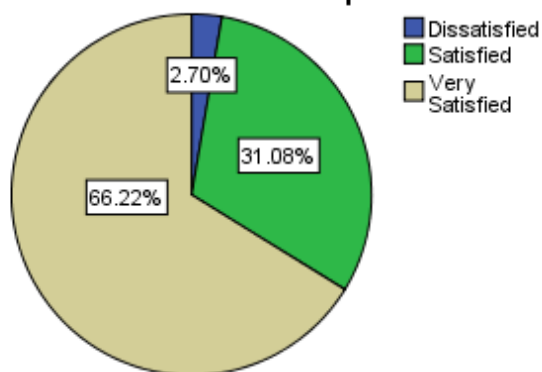
This conference was held at a convenient time of year.



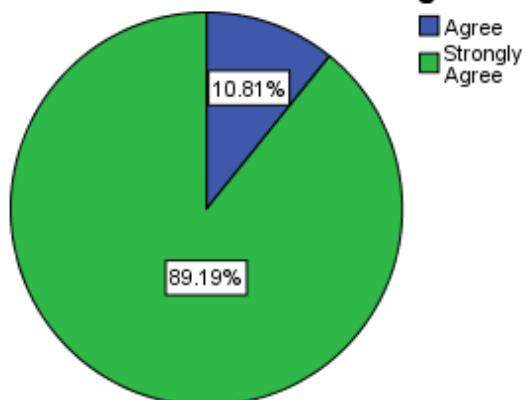
Overall how satisfied were you with the conference facilities?



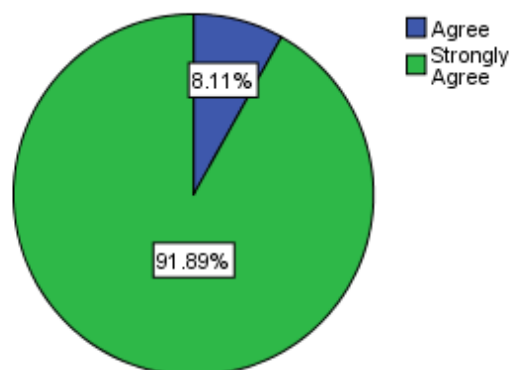
How satisfied were you with the conference materials provided?



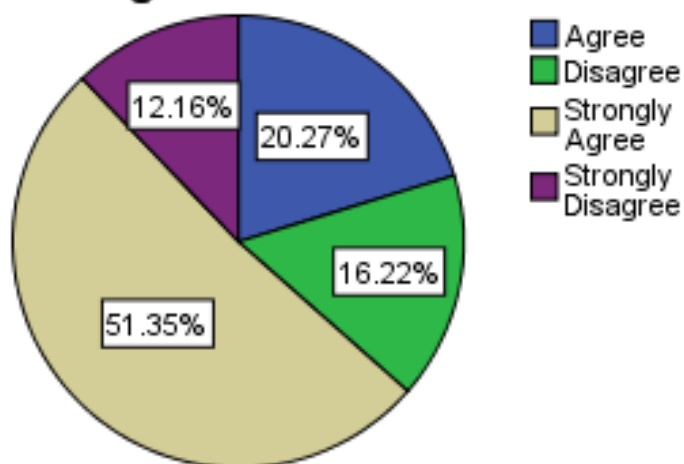
The conference was well organized.



Conference staff was helpful and courteous.



Getting the fee reimbursed for my substitute was a key factor in deciding to attend this conference.



CONFERENCE SESSION FEEDBACK

Ten questions or Likert response statements relate to the specific sessions of the conference:

- 1) How many breakout sessions did you attend?
- 2) How appropriate was the length of the breakout sessions?
- 3) The content of the breakout sessions was appropriate and informative.
- 4) Evaluate each workshop session. - Plenary Panel Session
- 5) Evaluate each workshop session. - Content: Systems-level content development: establishing learning progressions
- 6) Evaluate each workshop session. - Assessment: Using data to improve teaching & learning: practical approaches
- 7) Evaluate each workshop session. - Luncheon Keynote Speaker
- 8) Evaluate each workshop session. - Elementary school: instructional design considerations for differentiation for intervention & extension
- 9) Evaluate each workshop session. - Middle school: instructional design considerations for differentiation for intervention & extension
- 10) Evaluate each workshop session. - Leadership panel

Over 80% of the respondents attended both breakout sessions and over 95% attended at least one session. 85% of the respondents felt the breakout session length was appropriate. 8% felt they were too short and less than 3% felt they were too long. Over 85% of the respondents felt like the content of the breakout sessions were appropriate and informative. Less than 7% felt like the content was not appropriate and/or informative.

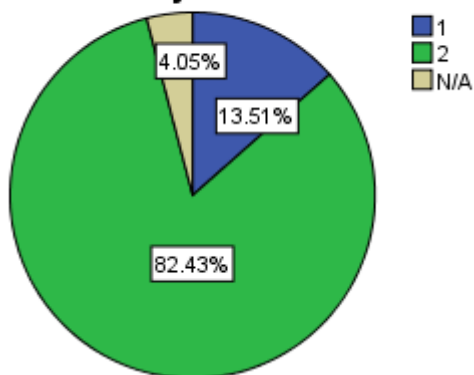
The pie charts for questions 4-10 focus on individual sessions and provide two pieces of information. First, the number of N/A's give some indication of how many participants did not attend the session¹ and the rest of the pie slices indicate the response of those who did attend.

¹ This is a percentage of non-attendees among the survey respondents only. It is possible that some respondents did not provide a rating and were categorized as n/a even though they did attend the session.

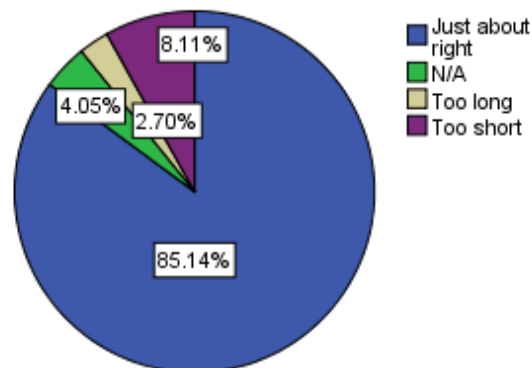
Because the N/A's are included in each graph the percentages associated with each non-NA slice are relative to the percentage of the total pie that attended the session. For example: statement 6, "Evaluate each workshop session. - Assessment: Using data to improve teaching & learning: practical approaches", almost half of the respondents did not attend the session. Therefore, the approximately 37% of respondents who were either satisfied or very satisfied with the content represents closer to 75% of the session attendees.

Overall the majority of session attendees (> 75% satisfied or very satisfied) were satisfied with the content of each session. The degree of satisfaction for each session varied somewhat with "Systems-Level Content Development: Establishing Learning Progressions" having the highest percentage of dissatisfied attendees (20%) and "Elementary School: Instructional Design Considerations for Differentiation for Intervention & Extension" having the lowest level of dissatisfied attendees (2.2%).

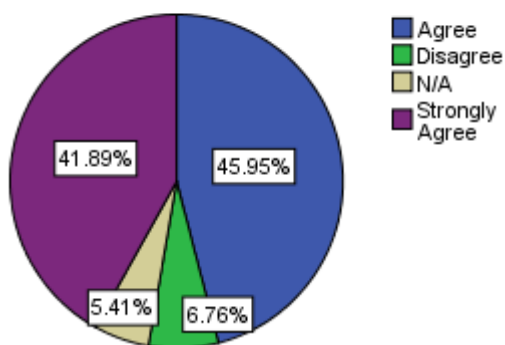
How many breakout sessions did you attend?



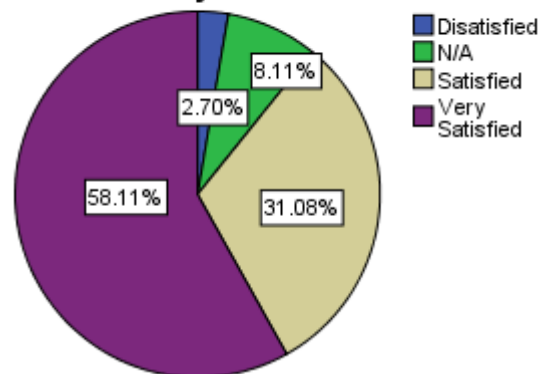
How appropriate was the length of the breakout sessions?



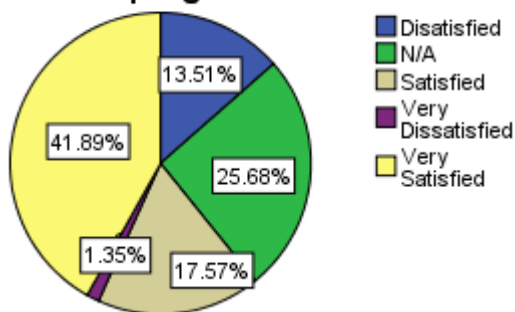
The content of the breakout sessions was appropriate and informative.



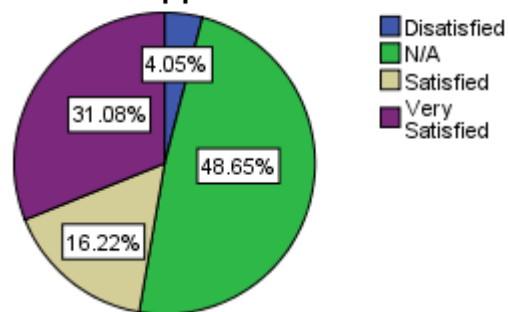
Evaluate each workshop session. - Plenary Panel Session



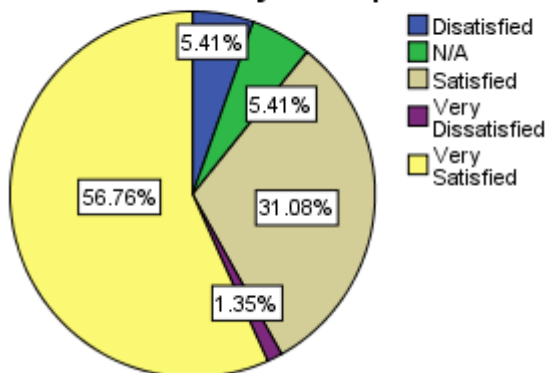
Evaluate each workshop session. - Content: Systems-level content development: establishing learning progressions



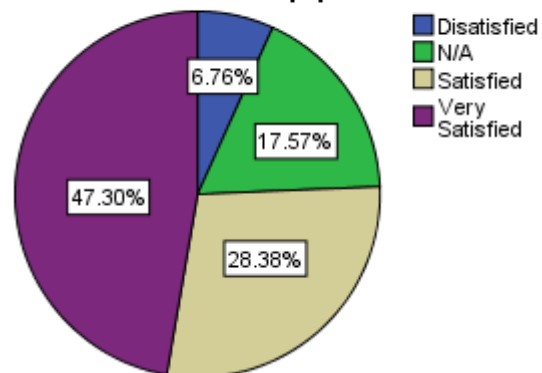
Evaluate each workshop session. - Assessment: Using data to improve teaching & learning: practical approaches



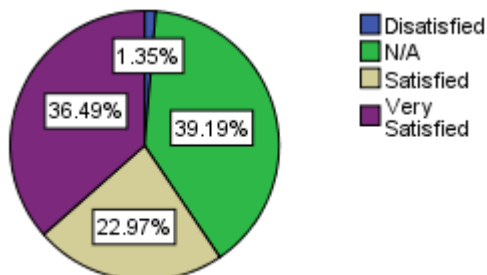
Evaluate each workshop session. - Luncheon Keynote Speaker



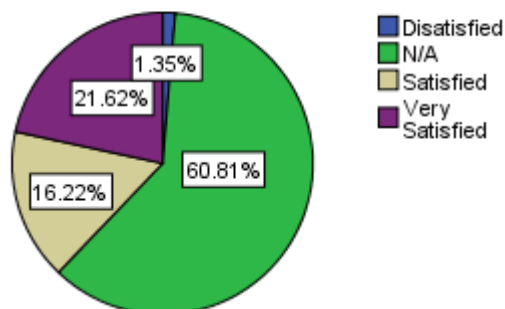
Evaluate each workshop session. - Leadership panel



**Evaluate each workshop session. -
Elementary school: instructional
design considerations for
differentiation for intervention &
extension**



**Evaluate each workshop session. -
Middle school: instructional design
considerations for differentiation for
intervention & extension**



OVERALL CONFERENCE FEEDBACK

Seven questions or Likert response statements relate to the overall conference feedback:

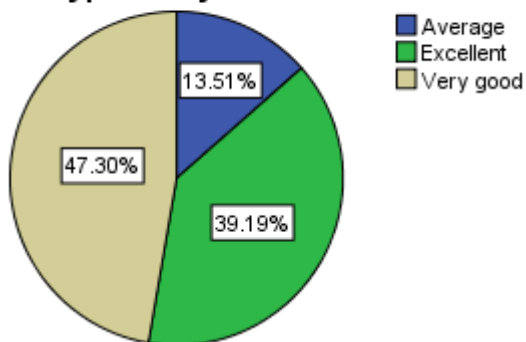
- 1) How would you rate this conference compared to other conferences of this type that you have attended?
- 2) In comparison to other conferences you've attended, rate how valuable this conference was to improving your practice.
- 3) Approximately how many conferences of this type do you attend annually?
- 4) Overall, how satisfied were you with the speakers/presenters?
- 5) How satisfied are you with the content of the information presented and its ability to make a significant difference in your practice?
- 6) Do you plan to attend this conference next year?
- 7) Would you recommend this conference to others?

86% of the respondents rated this conference as **very good** or **excellent** compared to other conferences they had attended. **78%** of the respondents indicated that this conference was either **valuable** or **very valuable** in regard to improving their practice as compared to other conferences. A very high percentage of respondents (**97.3%**) indicated that they were either **satisfied** or **very satisfied** with the speakers and the presenters. A lower, but still very high

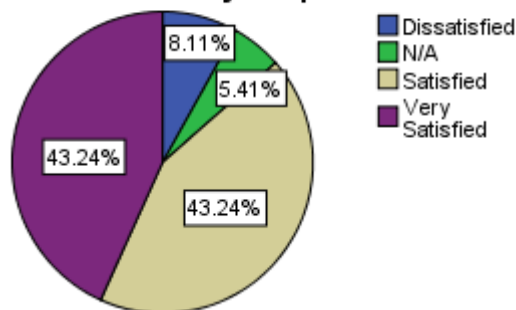
percentage of respondents (**86.5%**) indicated that they were **satisfied** or **very satisfied** with the content presented and its ability to make a significant difference in their practice.

Almost 84% of the respondents indicated that they would recommend the conference to others and approximately **57%** indicated that they planned on attending the conference next year.

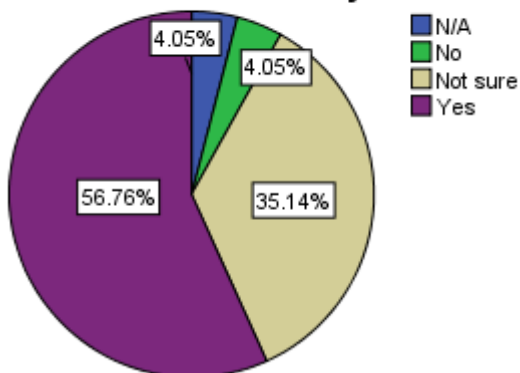
How would you rate this conference compared to other conferences of this type that you have attended?



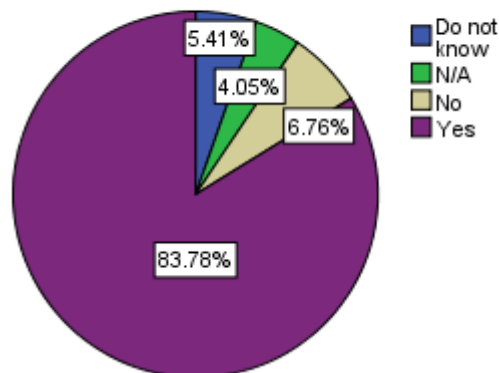
How satisfied are you with the content of the information presented and its ability to make a significant difference in your practice?



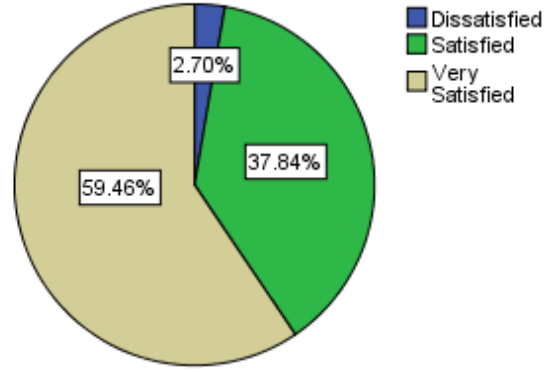
Do you plan to attend this conference next year?



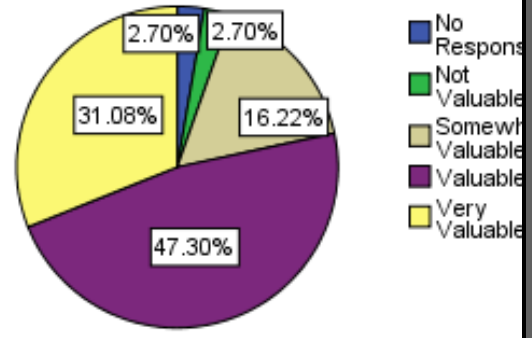
Would you recommend this conference to others?



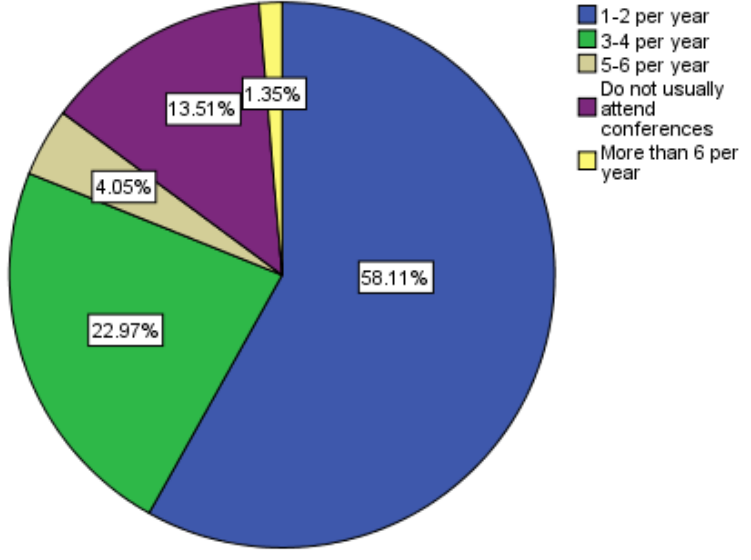
Overall how satisfied were you with the speakers/presenters?



In comparison to other conferences you've attended, rate how valuable this conference was to improving your practice.



Approximately how many conferences of this type do you attend annually?



SECTION II: OPEN-ENDED ITEMS

What did you like most about the conference?

The conference attendees indicated that they liked the fact that the conference was well organized, the staff was courteous and helpful, and the food was delicious. They also indicated that they liked the fact that the content of the conference was informative, relevant to the classroom, easy to understand, and represented a useful mix of research and practice. In addition a few respondents indicated that they felt affirmed in the importance of their role as math educators and in their current educational practices. Attendees most frequently mentioned the quality of the expert panel sessions followed by the breakout sessions.

What did you like least about the conference?

By far, the most common complaint about the conference related to the lack of immediate application for the classroom. Attendees indicated that they would have liked more in-class strategies, concrete ideas, and materials showing “HOW” to implement the research in their own classrooms. A few indicated that the information was beyond the scope of their classrooms and not applicable to elementary teachers. A couple of attendees said they would like some hands-on activities to solidify what they were learning. One attendee said they would like a hand-out containing the website resources, and another indicated that they would like the teachers to have a time to collaborate and share classroom ideas with one another. In addition to complaints regarding the content of the conference, a few attendees offered a few logistic complaints. Three attendees voiced complaints regarding the parking and shuttle situation, one indicated the restrooms were crowded, and one indicated that the time of the year was problematic due to falling only a few weeks before the STAAR testing. Finally a few attendees indicated that they would like to have more session options.

What kinds of sessions would you like to see included at future conferences?

The attendees offered a wide array of suggestions for future conference sessions. Most frequently these suggestions surrounded translating the research into classroom practices. Specifically the attendees would like sessions providing resources, classroom strategies,

curriculum ideas, and research based practices. The remaining responses span a variety of specific attendee desires and are included in the bulleted list below:

- Integrating elementary math with technology
- Research focused on targeted grade levels
- RTI plans for low achieving students (3)²
- Assessment systems
 - Assessment design
 - Formative Assessment
- Integrating math across the curriculum
- Sessions led jointly by researchers and practitioners
- Hands on sessions
- Differentiated instruction (3)
 - “How to engage V-coded students while challenging higher level learners”
- Combined MS and HS Session
- Session where teachers can share ideas with each other (2)
- Addition/subtraction strategies
- Multiplication/division strategies
- At risk students
- Motivating students (2)
- “Taking the fear out of getting involved with classroom research”
- ELL students
- Math competencies
- Encouraging higher level thinking
- Using collaborative groups
- Progress monitoring for K-2nd teachers
- A session in which schools can bring their data and get it disaggregated and set goals
- A session like the content of the lunch keynote speaker

²Number in parenthesis indicate the number of respondents who made a similar suggestion.

If the substitute reimbursement fee were not available next year would you still be able to attend the conference? Why or why not?

Out of the 74 attendees who provided feedback, 34 indicated that even without the substitute fee reimbursement they would be able to attend next year's conference. One participant indicated that they would probably be able to attend, nine indicated that they were not sure, and four indicated that they probably could not attend next year without the reimbursement. 17 indicated that they could not attend next year without the substitute reimbursement and four indicated that they could attend but the absence of the fee reimbursement would prohibit them from bringing other teachers with them.

Of those who indicated that they could attend 15 gave a reason relating to the fact that they did not require a substitute for their position or that the question was not applicable to them. Five indicated that they still would attend because the conference was valuable and worth the expense. One indicated that the campus could fund it, one indicated that they received credit hours for attending, and one said that they use internal subs. Of the nine attendees who indicated that they might attend, four said it depended on district/campus funding.

Of the 17 that indicated that they could not attend, 15 indicated that their district/campus either could not or would not pay for the substitute. Two said they would be docked sick/personal days.

SURVEY CONCLUSIONS

The RME Conference, in the inaugural year, posted strong attendance and universally strong feedback. With 80% or better positive feedback on most survey questions, this response indicates a solid foundation on which to build, as well as insight on ways to foster appropriate growth and achieve improvement. This constructive feedback was well-received and will be incorporated into future planning.