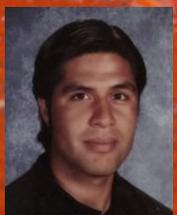


ACTIVATING AGENCY FOR STUDENT ACCESS, ENGAGEMENT, AND ADVANCEMENT IN MATHEMATICS

JUNE 25-27, 2020 SCOTTSDALE, AZ TODOS 2020 CONFERENCE



Impact Sessions

The morning of Friday, June 26 sets the tone of the conference with six simultaneous 2-hour interactive workshops called "Impact Sessions," each addressing a different conference strand. Conference strands are (1) Beliefs & Structures, (2) Curriculum & Instruction, (3) Families & Communities, and (4) Systems & Accountability.

ROBERT Q. BERRY III

President of the National Council of Teachers of Mathematics; the Samuel Braley Gray Professor of Mathematics Education at the University of Virginia

UNPACKING THE CATALYZING CHANGE SERIES: A FOCUS ON EQUITABLE POLICIES, PRACTICES, AND STRUCTURES

This session looks at lessons learned from the field of mathematics education related to the recommendations in the Catalyzing Change series. Specifically, it will focus on policies and practices impacting common pathways across K-12, structural policies (the role of readiness assessments, grouping, and tracking), the purpose of school mathematics, and equitable teaching.

Strand 4 Audience: K-12

MARK ELLIS

Professor in Secondary Education at CSU Fullerton whose work examines the history of U.S. school mathematics and issues of equity in mathematics education

"I USED TO TEACH MATH; NOW I TEACH STUDENTS." INSIGHTS FROM LEARNING TO IMPLEMENT CULTURALLY RESPONSIVE MATHEMATICS TEACHING

In this interactive session participants will engage in activities that provide insights into culturally responsive mathematics teaching (CRMT) and learn from the efforts of 20 teachers of mathematics working to put CRMT into practice. We will discuss the promise of such an approach as a means to recognize and address inequitable practices of mathematics education as well as hear about the challenges this presents. At the heart of all of our work will be attending to rehumanizing mathematics teaching and mathematics learning.

Strand 2 Audience: 6-12

ARMANDO MARTINEZ-CRUZ

Professor in the department of Mathematics at CSU Fullerton who has collaborated with school districts and state, national and international organizations.

RYAN KILE

Teacher at Anaheim High School, Anaheim Union High School District Ryan; advocates for student-centered learning and the integration of technology in the classroom

LACY KNIGHT

Teacher at Hutchinson Middle School, Norwalk-La Mirada Unified School District; strives to create a student-led classroom environment that supports critical thinking through engaging tasks.

SUSANNA MEZA

Teacher at Brookhurst Junior High School, Anaheim Union HS District; works to create an inclusive and responsive learning environment for her students, many of whom are emerging bilinguals.

NICHOLAS NAVARRO

Teacher at Norwalk High School, Norwalk-La Mirada Unified School District; uses a student-centered curriculum; advocates for inclusive classroom environments



LUZ A. MALDONADO

Assistant professor of Bilingual Mathematics Education at Texas State University in San Marcos whose primary research interest is the mathematical learning experiences of the bilingual learner.



MELISSA ADAMS CORRAL

A doctoral student of STEM Ed. at The Ohio State University. whose primary research interests include documenting the experiences and ideas of students of color in elementary classrooms



GLADYS KRAUSE

Assistant Professor of Mathematics Education at William & Mary whose research centers on teacher knowledge, children’s mathematical thinking, and how these two areas interact in multilingual and multicultural classrooms.



CATHERY YEH

Cathery is a mamascholar at Chapman University. Her work focuses on participation, power, and access in mathematics classrooms and in working with educators, students, and families to advance inclusion and social justice.



EMILIA FRIAS

An educator in Magnolia School District whose teaching experience ranges from high school students in alternative educational settings to students with moderate to severe disabilities.



BRIAN LAWLER

Brian’s works with educators to implement effective mathematics instruction, with explicit attention to how the institution is resistant to change that may disrupt white privilege. He is an Associate Professor for Mathematics Ed. at Kennesaw State University.



ABI LEAF

A Mathematics Content Specialist for the Escondido Union HS District and adjunct faculty at the University of San Diego whose interests focus on equity based systems-wide change at the secondary level.

THE KNOWLEDGE THEY BRING: ACCEPTING AND VALORANDO STUDENTS, THEIR FAMILIES AND COMMUNITIES

We can probably all agree that including family and community in the elementary mathematics classroom will be beneficial for our students’ mathematical agency, identity and knowledge. But what does it actually look like on a day to day basis? This session will build on the ideas of culturally relevant/sustaining pedagogy, translanguaging and children’s mathematical thinking and offer examples from bilingual elementary classrooms for participants to consider. But here is a spoiler alert – the mathematics educator must step out of their comfort zone and reconsider what it means to know and learn mathematics.

Strand 3 Audience: K-6

CHALLENGING MYTHS OF COMPETENCE: DEVELOPING BELIEFS AND PRACTICES THAT PROMOTE MATHEMATICS LEARNING FOR ALL

Mathematics education has a legacy of exclusion, instilling privilege for some and marginalizing others. This session centers on taking action to maximize educational advancement for all by examining, “How can we begin to dismantle inequitable structures, including ability grouping and tracking, to provide mathematics learning opportunities that challenge marginality and privilege?” Join us as we identify and challenge deficit-orientated views and actions that lead to the labeling and sorting of children that perpetuate segregation, marginalization, and privilege. From this context, the session will include examples of classroom practices that honor and leverage student diversity and institutional approaches to eliminate tracking and ability grouping.

Strand 1 Audience: K-12

MARILYN STRUTCHENS

An Emily R. and Gerald S. Leischuck Endowed Professor, Mildred Cheshire Fraley Distinguished Professor, and coordinator of secondary mathematics education at Auburn University, AL

W. GARY MARTIN

An endowed professor at Auburn University, where he teaches undergraduate and graduate courses in mathematics education and serves as co-director of the MTE-Partnership, a national coalition of universities working to improve the preparation of secondary mathematics teachers.

FOSTERING POSITIVE MATHEMATICS IDENTITIES VIA RIGOROUS STANDARDS-BASED MATHEMATICS CURRICULUM (GRADES 6-12) AND EQUITABLE TEACHING STRATEGIES

In this session, we define rigorous curriculum as curriculum that promotes 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). We will emphasize the importance of using such a curriculum along with equitable instructional strategies that enable students to see how developing a deep understanding of mathematics can expand their professional opportunity, allow them to understand and critique the world, and enable them to experience the wonder, joy, and beauty of mathematics (NCTM, 2018). Participants will find that when students are engaged in sense making of mathematics embedded in relevant contexts that they develop positive mathematics identities, a high sense of agency, and are able to see the connections that should be established through a rigorous curriculum. Participants will be engaged in problem solving, analyzing student responses, and examining videos and vignettes of mathematics classrooms through equity lenses.

Strand 2 Audience: 6-12

HEIDI ARANDA

The Senior Director of Curriculum and Professional Development in the Tucson Unified School Districts where her department works to integrate Culturally Responsive Pedagogy and Instruction into all levels and content of Curriculum and Professional Development.

MAURA VARLEY GUTIÉRREZ

An Assistant Professor of Practice in the Department of Teaching, Learning and Socio-Cultural Studies at the University of Arizona, Maura works with elementary pre-service teachers and provides professional development in partnership with local school districts.

OMAR SOTELO

A mathematics educator for 19 years, Omar currently serves as the Interim K-12 Math Coordinator for the Tucson Unified School District in the Office of Curriculum and Professional Development.

MAKING MATHEMATICS CURRICULUM CULTURALLY RESPONSIVE: A DISTRICT-WIDE EFFORT AND A CLASSROOM EXAMPLE WITH FOLKLÓRICO

In this interactive workshop, district educators and University partners will share our experience designing and implementing a district-wide culturally responsive mathematics professional development initiative. After providing an overview of the initiative, we will engage participants in activities related to the following: a district-created framework for culturally responsive education (named SPARKS), culturally responsive mathematics professional development modules for teachers, and an exemplar culturally responsive mathematics lesson about designing folklórico skirts. Throughout, participants will be asked to reflect upon their own contexts, share their own related experiences, and provide input and feedback.

Strand 3 Audience: K-12