

TODOS Virtual Conference 2021

Activating Agency, Access, and Advancement in Mathematics



Monday, June 21, 7:30am - 4:30pm

Tuesday, June 22, 7:30am - 4:00pm

Wednesday, June 23, 7:30am - 3:00pm

<https://www.todos-math.org/conference>

Cover Art by Ashly Guevara Vigil, Bucknell Elementary School
Fairfax County Public Schools

Focus Strands

Strand #1: Beliefs & Structures

This strand invites the audience to interrogate and challenge deficit views about mathematics learning and students' agency and identity. Emphasis is on the kinds of professional opportunities that enable teachers to focus on the social, cultural, linguistic, contextual, and cognitive facets of mathematics and mathematics learning.

Strand #2: Curriculum & Instruction

This strand focuses the participants on increasing student access to rigorous and relevant mathematics by creating equitable curriculum and instruction. Emphasis is on supporting the development of positive mathematical identities, maintaining high expectations, and eliminating tracking of both students and teachers.

Strand #3: Families & Communities

This strand centers the voices and perspectives of families and communities to reimagine how mathematics teachers can leverage families and community resources (i.e., language, knowledge, and culture) to support students' access, engagement and advancement in mathematics. In addition, some of the sessions consider how technology, including social media, can be used to engage families and communities as school partners in mathematics education.

Strand #4: Policies, Practices & Actions

This strand is a call to action to resist the post-pandemic "getting back to normal" policies and practices that ignore systemic racism and other injustices. Emphasis is on the need to embrace social justice education, socio emotional learning, and centering the voices of minoritized groups such as multilingual learners, those who identify as LGBTQ+, and those from indigenous communities.



Sessions listed are pacific time. Room locations are subject to change. An updated session guide will be shared just prior to the conference. Register today!

Session Descriptions

Monday, June 21

8:15 - 9:15 PT

Math Strong: Cultivating Space for a More Just and Humanizing Mathematics Education

Session 100, Room A

All Strands

Julia Aguirre



This session will be an opportunity for all of us to critically reflect on our work to cultivate a more just and humanizing mathematics education for children and youth. In the age of COVID, we cannot return to normal because normal was not working for historically marginalized and segregated youth. We must return better. Dr. Aguirre will invite the audience to revisit the three areas identified in the TODOS/NCSM position statement on mathematics education through the lens of social justice. Drawing on examples from research and practice, she will ask us to interrogate the following questions connected to the conference strands:

1. *What actions have been taken to eradicate systemic racism and other forms of systemic oppression in my math education work?*
2. *What actions have been taken to cultivate joy and activism as integral parts of mathematics education?*
3. *How do I know my efforts have made a positive difference for BIPOC children and their families?*
4. *What can I do to collectively cultivate and sustain a math strong space?*

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Julia Maria Aguirre is a Professor of Education at the University of Washington Tacoma. Her work examines equity in mathematics teaching and learning, teacher education, and culturally responsive mathematics pedagogy. A primary goal of her work is preparing new generations of teachers to make mathematics education accessible, meaningful and relevant to today's youth. For over 20 years, Dr. Aguirre has worked with K-12 mathematics teachers in several states including WA, CA, AZ, NY and IL. She has taught middle and high school mathematics in formal and out-of-school settings. She has been a PI or CO-PI on three National Science Foundation funded projects: Center for the Mathematics Education of Latinos/as (CEMELA, CO-PI); Teachers Empowered to Advance Change in Mathematics (TEACH MATH, CO-PI); and Mathematical Modeling with Cultural and Community Contexts (M2C3, PI). In addition to numerous articles and book chapters, she is a co-author of the NCTM book, *The Impact of Identity in K-8 mathematics: Rethinking equity-based practices* (Aguirre, Mayfield Ingram & Martin, 2013). She is co-editor of *Transforming mathematics teacher education: An equity-based approach* (Bartell, Drake, Roth McDuffie, Aguirre, Turner & Foote, 2019). She was a co-chair of AMTE's Equity Task Force (2014-16); writer for the NCSM/TODOS joint position statement on Mathematics Education through the Lens Social Justice: Acknowledgement, Actions, and Accountability (2016); and writer for the AMTE Standards for Preparing Teachers of Mathematics (2017). She welcomes all to join her in making mathematics more humanizing, just, and equitable for our nation's young people.



ST Math[®]

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ST Math is a PreK-8 visual instructional program that leverages the brain's innate spatial-temporal reasoning ability to solve mathematical problems. The program's unique, patented approach provides students with equitable access to learning through challenging puzzles, non-routine problem solving, and informative feedback. Time spent on ST Math is time spent learning.

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ST Math was created by MIND Research Institute, a neuroscience and education social impact organization, dedicated to ensuring that all students are mathematically equipped to solve the world's most challenging problems. [Learn more at stmath.com](https://stmath.com).

9:20 - 10:00 PT

Advocacy: Opening Activity

Room A

All Strands

General

TODOS Advocacy Chair: Zandra de Araujo, University of Missouri - Columbia

Advocacy Committee Members:

Amber Candela, University of Missouri - St. Louis

Nico Gomez, University of Texas at Austin

Rodrigo Gutierrez, University of Arizona

Carlos LópezLeiva, University of New Mexico

Gladys Krause, William and Mary University

Directly following the opening keynote by Julia Aguirre, join the Advocacy Committee as we debrief the session together and set the tone for the rest of the conference. In this interactive session we will plan our journey for the next three days of the TODOS conference.

The Effects of Unpacking Teacher Identity in the Classroom

Session 101, Room B

Beliefs & Structures

9 - 12

Sarah DiMaria, Cedars International Next Generation High School, Austin TX

Dwaina Sookhoo, Academy For Young Writers

Allie Webb, Columbus City Schools, Columbus OH

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Math is a language of power that has historically been tracked, granting access to certain groups. We will lead participants through the reflections, tools, and strategies we engaged in with mentors that helped us inspect our identities and discuss the effects this had on our teaching, students, colleagues, and access in our classrooms.

Making Mathematics Curriculum Culturally Responsive: A District-Wide Effort and a Classroom Example with Folklórico

Session 102, Room C

Curriculum & Instruction

K - 12

Maura Varley Gutierrez, University of Arizona

Rodrigo Gutierrez, University of Arizona

Heidi Aranda, Tucson Unified School District, Tucson, AZ

Omar Sotelo, Tucson Unified School District, Tucson, AZ

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<https://taphs.tusd1.org/Principal>

In this interactive workshop, district educators and university partners will share 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.

¡Ayuda! Have a question? Need some assistance? Reach out at [**help@todos-math.org**](mailto:help@todos-math.org).



Bridging Math and Language for Bilingual Students: Issues, Mindsets, and Strategies for the Classroom

Session 103, Room D

Curriculum & Instruction

College

Joanne Baltazar Vakil, Dayton Islamic School, Dayton, Ohio

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This session highlights the cognitive, social, psychological, and political pressures bilingual students face. It offers strategies of accommodations during lessons and math tests and demonstrates humanizing ways to value and bridge student home language with the academic language needed for college and career. Only by dismantling harmful beliefs in the language subordination process will the shift of teacher mindsets towards cultivating relationships that support mathematical proficiency begin.

The Knowledge They Bring: Accepting and *Valorando* Students, their Families and Communities

Session 104, Room E

Families & Communities

K - 5

Luz Maldonado Rodriguez,
Texas State University at San
Marcos

Melissa Adams Corral,
The Ohio State University

Gladys Krause,
College of William & Mary

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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.

"We have the capacity to create change so that each and every child can have access to learning environments that are designed as mathematically powerful spaces."

-Catalyzing Change

Supporting Teacher Leadership with an Equity Lens

Session 201, Room B

**Beliefs &
Structures**

General

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Elizabeth DeCarli, San Francisco Unified School
District, San Francisco, CA

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Strong learning communities are necessary to implement an equitable, rigorous, and coherent mathematics program. One way we support building and sustaining these is through our work with teacher leaders we call Teacher Facilitators. Hear about our journey in supporting these leaders to create team goals, consider ideas of equity, and leverage their learning community as a driver for change. We will share activities and documents we have created to guide sense making and learning for our teams.

Fostering Positive Mathematics Identities via Rigorous Standards-Based Mathematics Curriculum and Equitable Teaching Strategies

Session 202, Room C

**Curriculum &
Instruction**

6 - 12

Marilyn E. Strutchens, Auburn University

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W. Gary Martin, Auburn University

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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.

"Technological resources are not a replacement for teaching; rather they are tools to aid us in meeting our instructional goals and to help us foster relationships from afar."

- TODOS [Technology Commentary](#)

Examining Education Stereotypes and Promoting Community-Related Projects in Mathematics Teacher Education

Session 203, Room D

Beliefs & Structures

College

Andrew M. Ross, Eastern Michigan University

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Stephanie Casey, Eastern Michigan University

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Melody Wilson, University of Michigan

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Are achievement "gaps" due to some racial groups being less interested in education than others? In educating future mathematics teachers, we counter untrue stereotypes related to inequities in education with data-based activities. The MODULE(S²) project includes teacher education statistics curriculum materials that have equity and social justice as a major component. Come engage in our activities and learn about the project.

Get Rhythm: Hip Hopping into Math

Session 204, Room E

Curriculum & Instruction

General

Billie Mathews, University of Montana

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Hip Hop mathematics provides an environment for demonstrations of voice to experience language, literacy, and culture through mathematics. This session presents the positive side of Hip Hop music and culture and outlines the history and content for successful facilitation of learning. The participants are provided background information/content to incorporate elements of hip hop into lesson plans. The culminating activity includes the composition and performance of a mini-hip-hop math lesson through large and small group collaboration.

President's Panel

Session 205, Room F

Policies, Practices & Actions

General

Facilitated by Linda Fulmore, President TODOS: Mathematics for ALL

Trena Wilkerson, NCTM

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Crystal Hill Morton, BBA

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Megan Burton, AMTE

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This session provides opportunities for national mathematics presidents to reflect on the challenging past year and their organization's contributions to equity work. Additionally, they will share the next steps for the year to come and the legacy they wish to leave as a mathematics educator.

1:45 - 2:45 PT

Fostering Empathy Through Mathematical Modeling

Session 301, Room B

**Beliefs &
Structures**

K - 12

Elizabeth Burroughs, Montana State University Mary Alice Carlson, Montana State University

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Mathematical modeling involves taking an authentic situation, translating it into the mathematical world to pursue a solution, and interpreting the results in context. Modeling situates mathematical problem solving squarely in daily, lived experiences. In this session, we will consider empathy as a practice that can and should be cultivated in students' mathematical modeling and will explore the critical role empathy plays in how we, and our students, understand and solve authentic problems.

Promote Agency and Access by Using Discussion Routines that Address Linguistic and Mathematical Demands in Algebra

Session 302, Room C

**Curriculum &
Instruction**

6 - 12

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Ernesto Calleros, San Diego State University

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How can you promote access and equity by using demanding tasks in your linguistically diverse high school classroom? In this session we will use a research-based framework to analyze the linguistic demands of a typical introductory algebra task. Then we will explore how to use math language routines, supported with a Desmos teacher activity, to engage students in refining their mathematical language. You will leave with new ideas and with a Desmos activity you can customize.



<https://www.bonfire.com/todos-2021/> or <https://www.bonfire.com/todos-2021-vc/>

Challenge the Dominant Mathematical Discourse by Privileging Multiple, Connected Representations

Session 303, Room D

Curriculum & Instruction

K - 8

Kimberly Morrow-Leong, George Mason University

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Challenge the dominant discourse in mathematics by changing the perception of the privileged problem solution. Currently the symbolic representation is the end goal of much of mathematics instruction despite the fact that more information comes to us visually than ever before. The equitable approach is to privilege solutions that include a network of multiple, connected representations. Let's challenge ourselves to look differently at evidence of student thinking.

Building on Community Strengths: Intersection of Indigenous Knowledge Systems and Mathematics Education to Achieve Inclusive Classrooms

Session 304, Room E

Families & Communities

General

Florence Glanfield, University of Alberta

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In this session participants will learn about some commonly held teachings within Indigenous knowledge systems from Indigenous Elders. These Elders will also share their understandings of mathematics and teaching mathematics. Participants will be invited to examine classroom communities and practices through the lens of Indigenous knowledge systems in order to activate student agency, engagement, and advancement in mathematics and develop tools for steps they will take in their practice.

"Entre los individuos, como entre las naciones, el respeto al derecho ajeno es la paz."

-Benito Juárez

3:00 - 3:45 PT

Student Panel

Session 300, Room A

**Beliefs &
Structures**

General

Facilitated by Carlos LópezLeiva & Gabino Noriega, University of New Mexico

Panel: Middle School Students from Albuquerque Public Schools: Héctor, Kassandra, Judith, and Alejandro

Co-Presenters:

Sylvia Celédon-Pattichis,
University of New Mexico

Marios S. Pattichis, University of
New Mexico

Gulnara Kussinova, University of New
Mexico

"I never thought I would reach this high": The Experiences of Middle School Latinx Student Co-Facilitators Teaching Mathematics and Computer Programming.

In this session participants will have the opportunity to interact with Latinx bilingual middle school students, who co-taught an integrated curriculum (mathematics and computer programming) in an after-school program, are currently in high school, and have developed their STEM interests. These former co-facilitators will share shifts in their views of educational goals and achievement, and self-concept and agency; and will reflect on what their peers thought about their work as co-facilitators.

3:45 - 4:30 PT

Student Awards

Room B

General

Hosted by Lisa Jilk, TODOS Awards Chair

Directly following the student panel, TODOS will honor 13 students from across the country. Please join us in this virtual session to recognize these incredible young people.



**Additional Networking Events after the
Student Awards in the Wonder room.**

Tuesday, June 22

8:15 - 9:15 PT

**Mathematics in Language, Histories, and Community:
Developing Critical and Community Knowledge with Bilingual
Teacher Candidates**

Session 401, Room B

**Families &
Communities**

General

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Leonor Pereda, Chapman University

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Karina Ramirez, Chapman
University

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The session focuses on designing learning spaces to allow K-12 students and bilingual teacher candidates to see themselves and the world through math. Co-facilitated by the university faculty, one teacher education graduate, and a bilingual candidate, the design principles that attend to language, histories, and community within lesson design and teacher education program design will be shared. Join us to consider how the tools and resources shared can apply to your university, district, or classroom setting.

Welcoming Students into the Fold

Session 402, Room C

**Curriculum &
Instruction**

K - 5

Melissa Hosten, University of Arizona

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Debbie Black, Tucson Unified School District,
Tucson, AZ

Deborah.Black@tusd1.org

Do our learners feel welcomed into tasks, learning, & classrooms? What if our learners could see ethnic identity intrinsically part of their math identity? What if instruction & environment helped learners develop both identities in tandem, not as non-competitive but as ONE identity? We can intentionally support their maths ethnic identity, deepening their understanding of their ethnic identity through & in their identity as a maths learner. We'll engage in experiences, reflect, & collaborate.

"Professionalization of teachers means humanizing them: they are complex multi-issue people who care deeply about their students and who are capable of engaging with deep work to serve their communities."

-The Mo(ve)ment to Prioritize Antiracist Mathematics

"Fake it until you make it!": A Case Study on How Language Use and Positioning Mediated the Participation in Mathematics and Computer Programming of a Latina Learner

Session 403, Room D

Beliefs & Structures

6 - 8

Sylvia
Celedón-Pattichis,
University of New
Mexico

Gulnara
Kussainova,
University of New
Mexico

Carlos LópezLeiva,
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Mexico

Marios S. Pattichis,
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The presentation of an illustrative case study of a bilingual Latina middle school student, who participated in an after-school program integrating mathematics and computer programming, will actively engage the audience in reflecting how facilitators' quality of interactions mediate learners' social and intellectual participation. Attention to positioning, language use, and learner agency during interactions will be highlighted and discussed during the presentation.



¡Ayuda! Have a question? Need some assistance? Reach out at help@todos-math.org.

Changing the Narrative by Shifting Data Discussions

Session 404, Room E

Beliefs & Structures

General

John W. Staley, Baltimore County Public Schools, Baltimore MD

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How might we shift practices of static deficit labeling of students and schools to develop a culture that cultivates a positive mathematics identity and affect in students as doers of mathematics? During the session participants will engage in conversations about the use of data and strategies to shift the conversations.

9:30 - 10:30 PT

Queering the Unqueerable: Rethinking Geometric Proof

Session 501, Room B

Curriculum & Instruction

9-12

Brandie Waid, Independent Scholar, Founder of The Queer Math Teacher

Arundhati Velamur, NYU Steinhart School of Education

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While the larger mathematics education community has begun to contend with the idea that mathematics is influenced by political and sociocultural factors, popular culture continues to uphold mathematics as a field of objective logic, reasoning, and neutrality. In our own methods courses, we have found that nothing invokes this popular view of mathematics more emphatically than that of the method of the two-column proof taught in high school geometry. Two column proof has become so synonymous with high school geometry that most mathematics teachers struggle to envision what geometry could be without it. In this session we will make use of queer theory as a lens through which to disrupt the normative structures of geometric proof and to reimagine the idea of what counts as proof. We will connect this discussion to a larger framework of helping students to adopt a questioning stance in mathematics, serving to re/humanize the subject for LGBTQ+ students, as well as students from other traditionally marginalized groups.

Connecting Mathematics and Social-and-Political Issues in Mathematics Content Courses for Teachers: Examining Income Distribution

Session 502, Room C

Curriculum & Instruction

College

Eva Thanheiser, Portland State University

Amanda Sugimoto, Portland State University

Torrey Kulow, Portland State University

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We redesigned a mathematics content course for elementary school teachers to focus on understanding mathematics as a tool to make sense of the world. The content was situated in the context of income distribution in the US. The 27 preservice teachers in the course learned mathematics and had a better understanding of income distribution. In addition they reconceptualized mathematics as a useful tool. We share our framework for task design, our tasks, and our results.

"DARE to Reach ALL Students!"



Leveraging Visual Representations and Language Strategies to Support Access and Equity in Mathematics for English Learners: Enhancing Teacher Efficacy Through a Blended PD Experience

Session 503, Room D

Beliefs & Structures

6-8

Pamela Buffington, Education Development Center

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Peter Tierney-Fife, Education Development Center

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Mathematical visual representations as problem solving tools have great potential for supporting students who are English learners (ELs). Come explore, hands-on, how visual representations in ratio and proportion contexts can support mathematical work and communication. We will discuss how a professional development course focused on integrating language strategies, using visual representations, and analyzing media-rich work produced by ELs resulted in increased teacher efficacy and understanding.

Virtual Community Math Walks: Investigating Resources and Incorporating Technology

Session 504, Room E

Families & Communities

General

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Maria del Rosario Zavala, San Francisco State University

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This presentation builds on research about resources that children bring to the mathematics classroom. Presenters will discuss notions of family and community in the context of learning mathematics and share technology apps that can help document community resources. Participants will then engage in a mock (virtual) community walk of a location near an elementary school. The presentation will conclude with sharing findings from the virtual walk and reimagining notions of "community" to include more of the strengths that our students bring.



<https://todosmath.podomatic.com>



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President's Panel Session 505, Room F		Policies, Practices & Actions	General
Facilitated by Linda Fulmore, President TODOS: Mathematics for ALL			
Mona Toncheff, NCSM mtoncheff@mathedleadership.org	Nita Walker, CMC-South momnita@aol.com	Kathryn Kozak, AMATYC kathryn.kozak@amatyc.org	Christa Jackson, SSMA jacksonc@iastate.edu
This session provides opportunities for national mathematics presidents to reflect on the challenging past year and their organization's contributions to equity work. Additionally, they will share the next steps for the year to come and the legacy they wish to leave as a mathematics educator.			

10:45 - 11:15 PT

Iris Carl Awards Session 600, Room A	General
José Franco WestEd, CA	Rochelle Gutiérrez University of Illinois at Urbana-Champaign
Join us in honoring the awardees of the 2020 TODOS Iris M. Carl Equity in Teaching and the TODOS Iris M. Carl Equity and Leadership Awards. These awards recognize individuals for their significant contributions to the quality of mathematics education provided for all students, in particular to Latina/o and/or Indigenous students.	

12:30 - 1:30 PT

How Understanding Translanguaging can Help us Teach Mathematics Better Session 601, Room B	Beliefs & Structures	General
Zandra de Araujo, University of Missouri dearaujoz@missouri.edu	The Translanguaging Study Group	
Translanguaging provides a useful lens through which we might view language. In this session, we will explore this powerful theory of language in practical ways. Participants will engage in activities and discussions to explore key ideas including the power of student labels, avoiding the conflation of math and language proficiency, and the fostering of language-rich classrooms. Participants will be provided access to a digital file of resources containing additional activities and readings.		

High School Mathematics Lessons to Explore, Understand, and Respond to Social Injustice

Session 602, Room C

Curriculum & Instruction

9 - 12

Basil Conway IV, Columbus State University

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Brian Lawler, Kennesaw State University

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Take time to conceptualize Teaching Mathematics for Social Justice (TMSJ) through two mathematical lessons. Lessons will focus on moving student understanding of academic achievement gaps towards opportunity gaps. Time will be provided to critically discuss how these lessons may be revised to fit local contexts. The session will conclude with discourse and reflection on using the TMSJ framework to create participants' own social justice mathematics lessons.

No Zero-Sum Game: Using Complex Instruction to Develop Learners' Agency and Problem-Solving in a Lesson on Integer Addition

Session 605, Room F

Curriculum & Instruction

6 - 8

Cody L. Patterson, Texas State University

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Cindy Cattey, Thomas Edison High School, San Antonio, TX

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Amanda Gonzales, New Braunfels High School, New Braunfels, TX

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We will share an adaptation of an "Integer War" card game, implemented in a summer mathematics program for children, that uses ideas from Complex Instruction to enhance opportunities for conceptual learning and equitable participation. We will describe some strategies we use to ensure that all students engage in mathematical thinking and problem-solving while playing. Participants will get to experience the game for themselves, and learn about some actual students' experience with the game.

"When education is not liberating, the dream of the oppressed is to become the oppressor."

-Paulo Freire

Latinx Parents and Teachers Working Together to Support Students' Mathematics Learning

Session 604, Room E

Families & Communities

K-5

Kathleen Stoehr,
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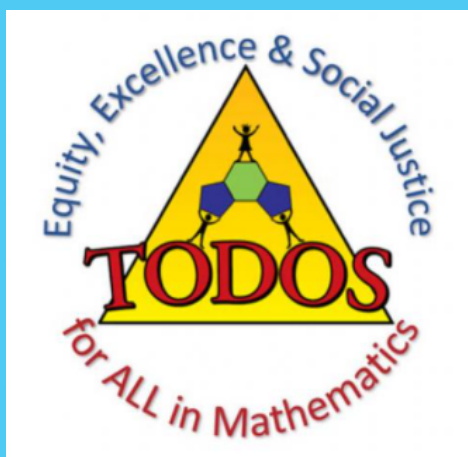
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Hector Gonzalez Rodas,
Voices Charter School

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This session addresses specific ways that teachers and parents can engage and learn from each other as a means to support students' mathematics learning. We will share how teachers and parents from two elementary school sites in Latinx communities are working together to create a two-way dialogue in mathematics between home and school to leverage family and community resources. Two teachers will share examples of how they are collaborating with parents to do this critical work.



TEEM

Session 603, Room D

All Strands

General

Ksenija Simic-Muller, Pacific
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TODOS' national peer-reviewed journal TEEM (Teaching for Excellence and Equity in Mathematics; <http://www.todos-math.org/teem>) is seeking contributions from our membership and highly encourages teachers to submit. There will be an overview of the submission process and attendees will have the opportunity for in-person real-time feedback from the editorial team. We'll be TEEMing with enthusiasm!

1:45 - 2:45 PT

Reflecting on Nos/Otras Spaces within Mathematics Teacher Educators' Collaborations

Session 701, Room B

Beliefs & Structures

General

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Sunghwan Byun,
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This session will engage the audience in the analysis of excerpts from collective interviews among twelve Mathematics Educators (MEs). The excerpts present ideas on how MEs viewed their collaboration and worked in Mathematics Education with other MEs. Through an Anzalduan perspective of nosotras, otras, nos/otras spaces, the audience and presenters will discuss aspects that nurture inclusive collaborations and ally work, especially amongst a group of people from diverse statuses and backgrounds.

Following Up on Student Responses to Promote Access to Mathematics

Session 702, Room C

Curriculum & Instruction

General

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Equitable mathematics instruction must include access to high level mathematics. In this interactive session we will provide an overview of how following up on students' responses can support students' access and engagement with cognitively demanding mathematics tasks. Participants will partake in activities with rubrics and checklists that can support enactment and self-reflection of follow up responses that encourage student voice and agency in the classroom during mathematical discussions.



We encourage you to tag others and tweet highlights from the conference using **#TODOS2021**

Academic Conversations Empower Students, Encourage Participation, Enhance Their Thinking, and Create a Respectful Learning Environment

Session 703, Room D

Curriculum & Instruction

K-8

Jose Franco, WestEd

Maria Velasquez,
Imagine School of
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Vanessa Valladolid,
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A panel of classroom teachers from a TK-7 dual immersion school will introduce tools and techniques they have used to promote deliberate academic conversations. Participants will discuss how talk helps students make sense of their thinking and promotes a robust understanding of the math concept. The presenters will share how discussions have helped make their students' skills, knowledge, and experiences more visible schoolwide. Join us to share how you promote discussions in your classrooms.

Promoting Equity for Indigenous Latinx Students

Session 704, Room E

Families & Communities

K-5

Melissa Ann Gallagher,
University of Maine at Farmington

Erin Meunier,
George Mason University

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We welcome all participants to this session, particularly those with knowledge of or interest in supporting indigenous Latinx students in the mathematics classroom. In this session we will discuss a brief history of indigenous peoples in Guatemala, a school excelling in bilingual instruction (Spanish and the indigenous language), and implications for indigenous Latinx students in US classrooms.

"By continuing to privilege data analysis and probability over other kinds of spatial patterning, even if that data analysis concerns itself with issues such as climate change, we run the risk of limiting new ways of doing mathematics and our relationships to the practice." (Gutierrez 2017)

3:00 - 3:30 PT

Ignite Session 700, Room A		All Strands	General
Lynette Guzmán, California State University - Fresno	Adi Adiredja, University of Arizona	Brian Lawler, Kennesaw State University	Marcy Wood, University of Arizona
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Be inspired and engaged by this series of short, powerful presentations. Each ignite presenter uses 20 slides, which automatically advance every 15 seconds, to share insights, generate awareness, stimulate thought and ignite action.

Networking Activities in the Wonder Room after Ignite

Wednesday, June 23

8:15 - 9:15 PT

It's Time to Dismantle, Disrupt, and Reimagine Mathematics Education

Session 800, Room A

Policies, Practices & Actions

Kristopher Childs



As we near the end of an unprecedented pandemic many are excitedly awaiting a return to "normal". With a belief that school beginning Fall 2021 can return to pre-pandemic functionality. However, we must ask ourselves two important questions:

1. *In pre-pandemic times/education was every student receiving a high-quality mathematics education experience?*
2. *In pre-pandemic times/education was every student succeeding?*

If you answered no to either question this closing keynote session is for you as it will provide a pathway forward in the post-pandemic era. A pathway that focuses on a student-centered approach through the following pillars.

- **Dismantling** white supremacy culture in mathematics classrooms
- **Disrupting** inequitable practices and policies
- **Reimagining** the mathematics experience

The time is now to change mathematics education for the better. Join like-minded educators in the closing keynote session as we collectively work to ensure EVERY student going forth receives a high-quality mathematics education experience and EVERY student is successful. It's Time to Dismantle, Disrupt, and Reimagine Mathematics Education!

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As a teacher, professor, consultant, and member of senior leadership teams, Dr. Kristopher J. Childs maintains a focus on excellence in teacher content and pedagogical knowledge, equity, leadership development, and organizational change.

Dr. Childs seeks to create a movement through educating, advocating, and inspiring individuals to pursue academic excellence and academic success. He has been recognized by faculty, staff, and students as a visionary and collaborative leader. He has a student-centered focus through a teamwork approach of achieving common goals and improving student academic success. His lifelong goal is to improve student's classroom experiences.

Dr. Childs is a highly sought-after keynote speaker due to his skills, storytelling, and passion. As a speaker, Dr. Childs is not a motivator. He desires to inspire one to relentlessly go after their goals and dreams. He seeks to help one find their passion and their purpose. His messages have been deemed "life-changing". He is known for his mantra "Live Life to the Fullest...You Only Get One."

Policies, Actions, and Communication: What Will It Take to Change the Narrative About Multilingual Learners?

Session 801, Room B

Policies, Practices & Actions

General

Kathryn Chval, University of Missouri

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We consistently encounter negative, deficit, and false narratives about multilingual learners that are perpetuated in policies and in public communication. Phrases such as learning loss, falling further behind, dashing hope, struggling, suffering, failure, and achievement gaps, specific to multilingual learners, were prevalent in the media and social media throughout the COVID pandemic, exacerbating problematic policies, practices, and communication. What will it take to change these realities? Who is willing to join efforts and raise their voices to be part of the solution?

Students' Right to Have Wonderful Mathematical Ideas: An Equity and Social Justice Perspective

Session 802, Room C

Policies, Practices & Actions

General

Olga Torres, Tucson School District

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A teacher with an equity and social justice perspective believes in the human potential of all students and strives to empower them with trust and confidence in their mathematics learning. The Rights of the Learner is a framework that assures that all students will be heard and discovered. When students feel safe taking risks, making mistakes, and dealing with confusion because they know that these are natural obstacles of learning they approach cognitive demanding problem-solving tasks with confidence and invent/discover the mathematics we are required to teach. Participants will engage in a cognitive demanding task originating from two students' wonderful mathematical ideas and examine and identify the mathematics in students' artifacts of learning.

Tear-Free Math Class: Activating Agency through Socio-Emotional-Learning (SEL)

Session 803, Room D

Policies, Practices & Actions

General

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Is there space for emotion in the mathematics classroom? What emotions are upheld as supporting mathematical learning? Let's discuss how the teaching and learning of mathematics during the pandemic has stunted the social and emotional learning of students.

Perspectives on LGBTQ+ Inclusion in Mathematics Teaching Practices

Session 804, Room E

Policies, Practices & Actions

General

Facilitator:
Luis A. Leyva, Vanderbilt University

Panelists:
Brandie E. Waid, The Queer Mathematics Teacher
Mario I. Suárez, Utah State University
Zachary Champagne, The Discovery School
Victoria Thompson, Technology Access Foundation

Five panelists will address perspectives in mathematics education spanning contexts from elementary through undergraduate education. This panel was intentionally designed to capture multiple perspectives from practicing teachers and researchers who bring different life experiences and pedagogical practices for affirming LGBTQ+ students in mathematics. Panelists will share their experiences in relation to the following questions:

- **Question 1:** May you describe your positionality in relation to supporting and teaching LGBTQ+ students in mathematics? How do you make sense of your social position in this area in relation to gender identity, sexual orientation, race/ethnicity, grade level experience, a description of your own mathematical identity?
- **Question 2:** What are your experiences in implementing LGBTQ+-inclusive practices and curricula (e.g., lessons), including attending to issues of intersectionality?
- **Question 3:** How do you navigate the sociopolitical context of your school and community while engaging in this LGBTQ+-inclusive pedagogical work?

FACE-ing Futures: Engaging Culturally and Linguistically Diverse Families in Educational Leadership

Session 805, Room F

Policies, Practices & Actions

General

Maria Zavala, San Francisco State University

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Bernadette Andres-Salgarino, Santa Clara Office of Education

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In this session, we first introduce central ideas from the TODOS BIPOC parent commentary paper titled Black, Indigenous and Latinx Parents as Partners in Education. Next, we introduce one case study of family and community engagement (FACE) that is aligned with these ideas from the Santa Clara County Office of Education Family Engagement program, in which a culturally and linguistically diverse group of parents work together to learn more about how to support their K-12 students to succeed in math, language arts, and other academic areas. A unique feature of the program is creation of parent leader capacity to return to school and community sites and train other parents. In this way, parents are positioned as educational leaders. We will then turn over the presentation to our special guests, two parents who will speak to their experiences as mothers involved in this program. They will share what their involvement has been like, examples from presentations they have given, and key recommendations for how schools, districts, and county offices of education might start or deepen their own family engagement programs. We will close with questions and discussion with the audience.

11:45 - 12:45 PT

Healing-Informed Social Justice Mathematics: How Might I Incorporate Social Justice Mathematics in My Own Context?

Session 901, Room B

**Policies, Practices
& Actions**

General

Kari Kokka, University of Pittsburgh

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Michelle Cody, Willie L. Brown Middle School
San Francisco, CA

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In this interactive workshop participants will learn about healing-informed social justice mathematics (Kokka, 2019) which incorporates radical healing (Ginwright, 2016) and multi-tiered trauma informed care from an ecological approach (Harvey, 1996). We will use breakout rooms to analyze existing social justice mathematics tasks, from elementary to high school, for use in one's own context. We firmly believe social justice mathematics is for students of all backgrounds in a variety of school contexts, e.g., students of relatively privileged backgrounds in elite independent or wealthy suburban schools, students of historically marginalized backgrounds in Title I urban setting schools, students in rural schools, etc.

More than Math Class: Creating a Learning Community that Meets the Social and Emotional Needs of Students in the Mathematics Classroom

Session 902, Room C

**Policies, Practices
& Actions**

General

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The TODOS position paper [The Mo\(ve\)ment to Prioritize Antiracist Mathematics: Planning for This and Every School Year](#), identifies four key areas for attention, one being "prioritizing meeting the social and emotional needs of students in mathematics classrooms". The supporting commentary, [Centering Our Humanity: Addressing Social and Emotional Needs in Schools and Mathematics Classroom](#) provides actions for prioritizing this key idea. In this session we will unpack the actions from the commentary, discuss what the actions look like in the mathematics classroom through real classroom examples, and set goals to keep ourselves accountable to the actions.

"In our call to action, we recommend shifting away from teaching mathematics to students, and toward teaching students mathematics."

-TODOS Social-Emotional Learning Commentary Paper



The Mathematics Classroom: Redefining a New Normal Session 903, Room D	Policies, Practices & Actions	General
Emma Trevino, Mathematics Educational Consultant emmatrevino55@gmail.com	Harold Asturias, Center for Mathematics Excellence and Equity ha_@berkeley.edu	Carmen Whitman, Mathematics for All Consulting carmenwhitman@mac.com
For over a year, we have experienced the devastating effects of the COVID19 pandemic and acts of racial violence. They have exacerbated the pre-existing inequities in our educational system. Linguistically and culturally diverse students need to make sense of the world—through the lens of social justice. One key element of that is understanding how language and math are interconnected and mutually reinforcing. We need to amplify rather than simplify the language students use as they learn to use language for academic purposes. Additionally, distance learning presents both challenges and opportunities for our students to appreciate their power to reason, communicate, and create change. In this session, we will explore strategies for connecting language development and mathematics conceptual understanding.		

Math Matters in the Navajo Way of Life Session 904, Room E	Policies, Practices & Actions	General
Henry Fowler, Navajo Technical University, NM hfowler@navajotech.edu		
Mathematics is more than numbers, more than arithmetic, and more than formulas. Mathematics is about the logic in all these things and in every aspect of our daily lives. I will give examples, use traditional songs and Navajo culture, and lead activities that bring out the mathematics in everyday experiences of the Navajo way of life. Through Navajo teaching, we can take lessons in ordinary arithmetic and bring them to life. The session will bring out the life of the Navajos by having the participants construct a Navajo Hogan by using Navajo knowledge and geometry. The Navajo Hogan construction is intertwined with the cosmos order, which is captured by the Navajo elders, and they integrate the cosmos order in building their traditional home called "Hogan."		

1:00 - 2:00 PT

Advocacy: Closing Activity

Session 900, Room A

All Strands

General

TODOS Advocacy Chair: Zandra de Araujo, University of Missouri – Columbia

Advocacy Committee Members:

Amber Candela, University of Missouri – St. Louis

Nico Gomez, University of Texas at Austin

Rodrigo Gutierrez, University of Arizona

Carlos LópezLeiva, University of New Mexico

Gladys Krause, William and Mary University

Join the Advocacy Committee! Reflect on your shared experiences during the conference; make plans to activate agency, access and advancement in mathematics education. Let's keep the work going after the conference!

2:15 - 2:45 PT

TODOS Business Meeting

Room B

All members are welcome to participate.

During this meeting you will learn what new projects the Board is considering. In addition, all financials will be shared including the 2021-22 Operations Budget. Bring your questions and suggestions.

Pre-Recorded Sessions

Examples and Non-Examples as the Foundation for Rigorous and Accessible Mathematical Activity

Session 106, Pre-Recorded

Curriculum & Instruction

6-12

Zandra de Araujo,
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The use of examples and non-examples is a common feature of math lessons, particularly when introducing math concepts represented symbolically (e.g., quadratic equations). In this session we explore what makes an effective set of examples and non-examples as we engage in activities around the development of such sets. We will also focus on how to leverage such sets to foster mathematical discussions and student engagement in the mathematical practices within linguistically diverse classrooms.

Community Matters: Using Talking Circles to Build Community and Promote Positive Mathematical Identities in Secondary Classrooms

Session 206, Pre-Recorded

Curriculum & Instruction

6-12

Taryn Elliott, Envision Academy of Arts and Technology

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In this session, we will learn how talking circles, a restorative justice practice, can foster dialogue within secondary math classrooms that builds community, supports students in developing positive mathematical identities, and allows teachers and students to collaboratively reimagine what a meaningful math education looks like. The presenter will model how she leads talking circles and provide participants with the resources necessary to begin leading talking circles in their own contexts.

Math Is No Longer A Four-letter Word: Student Experiences in Two Rigorous Non-Traditional Senior Year Math Courses

Session 306, Pre-Recorded

Curriculum & Instruction

9-12

Erica Heinzman,
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Osvaldo Soto,
UC San Diego & San Diego State University

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Can a class awaken a student's awe for math? Equitable HS math pathways should be reflective of student interests and aspirations. We examine new research on student experiences in two such courses, Discrete Math and Introduction to Data Science, which are designed for HS students who may opt-out of math senior year. Come learn how these two non-traditional fourth-year courses influence student perceptions of math and engage in sample tasks from one of the courses.

TODOS hosts webinars throughout the year, open and free to ALL! Check out past sessions of TODOS live on our [webpage](#) and we hope to see you at future sessions.



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Pre-Recorded Sessions (continued)

Experiencing Multilingualism in the Mathematics Classroom: Fostering Linguistic and Cultural Awareness

Session 406, Pre-Recorded

Beliefs & Structures

6-12

Laura Kennedy,
Northern Michigan University

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Sandra Crespo,
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In this session participants are invited to experience mathematics in multiple languages to consider ways in which language serves as a resource and not a barrier to mathematics learning. We will discuss how teachers can use this activity with parents and with colleagues to counter the myths of language-free mathematics, deficit narratives about emerging multilingual students, and English-only policies in the learning of mathematics.

WHAT we say and HOW we say it matters: An analysis of the subjectifying and mathematizing language of mathematics coaches

Session 506, Pre-Recorded

Beliefs & Structures

General

Kimberly Morrow-Leong, George Mason University

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The movement toward equity and social justice in the mathematics classroom calls for us to challenge deficit views and language in the mathematics classroom. While you may know deficit language when you hear it, can everyone in your community recognize it? In this session we will learn to categorize utterances using a framework, and use the information to formulate strategies for encouraging more asset-focused language within the school community.

Leveraging Community Resources and Student Agency Through Mathematical Modeling

Session 606, Pre-Recorded

Families & Communities

General

Frederick Peck, University of Montana

Elizabeth Burroughs, Montana State University

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"When will we use this?" is a question about taking school math into the world. We flipped the question. We worked with rural youth to identify meaningful projects in their communities, and asked, "how can we mathematize this?". The youth brought community resources together with mathematical practices to bear on their projects. We'll share and co-develop design principles for bringing students' world and community resources together with disciplinary mathematical practices.

Wonder

Additional networking activities and discussions will take place in the Wonder Room at the beginning and end of each day as well as during the mid-day break. More information soon!



Sessions listed are pacific time. Room locations are subject to change. An updated session guide will be shared just prior to the conference. Register today!