



National Conference 2022

Orlando, FL

June 29 – July 1, 2022

Doubletree by Hilton Orlando at SeaWorld
10100 International Drive
Orlando, Florida 32821



**CGI 2022 National Conference
DoubleTree by Hilton at SeaWorld
Schedule at a Glance**

Wednesday, June 29, 2022

7:30-8:30 *Optional Pre-Conference Registration (additional registration required)*

8:30-1:00 *Pre-Conference Sessions*

CGI 101 (Lunch will be provided)

CGI Research & Policy Forum (Lunch will be provided)

12:00-2:00 Main Conference Registration

2:00-4:00 Opening Keynote

4:15-5:30 Concurrent Sessions

6:30 Welcome Dinner

Thursday, June 30, 2022

7:30-8:30 Breakfast

8:30-10:15 Keynote

10:30-11:45 Concurrent Sessions

12:00-1:00 Lunch

1:15-2:30 Concurrent Sessions

2:45-4:00 Concurrent Sessions

4:15-5:30 Keynote

Dinner on your own

7:30-10:00 Social/Game Night

Friday, July 1, 2022

7:30-8:30 Breakfast

8:30-9:45 Concurrent Sessions

10:00-11:15 Concurrent Sessions

11:30-1:00 Closing Keynote

1:00-2:00 Lunch

Welcome Message from the Conference Planning Committee

Welcome to the 11th Cognitively Guided Instruction National Biennial Conference! We are delighted to have the opportunity to host this special gathering of this international community of educators.

These past few years have been among the most challenging of times for teachers and all educators. We hope these few days of togetherness can help to fill your cup while strengthening the bonds among the many diverse members of the CGI community. Thank you so much for choosing to be here.

The theme of the 2022 CGI National Conference is *Lift Every Voice: Sharing Our Stories*. We hope that you will share your story with other attendees and invite them to share their stories with you. Please consider going to the CGI Story Booth and sharing your story there too. If you hear a good story at the conference, or if you know of a good story that one of your colleagues has, encourage the storyteller to tell it in the Story Booth.

Many thanks to the 80+ speakers who have agreed to share their perspectives with us through the concurrent and keynote sessions.

Since 2013, there have been more than 2,000 individual educators in Florida who have been involved in professional learning opportunities based on CGI. They represent the largest single group of attendees at this conference, and most of them are attending the CGI conference for the first time. We would like to offer a special welcome to all of the first-time attendees of this unique conference.

This conference does not have any official sponsors or vendors. Many organizations and individuals have provided financial resources to make the conference possible, and we are grateful for their support. Special thanks go to the *Cotsen Foundation for the ART of TEACHING* and the *U.S. Department of Education's Supporting Effective Educator Development* program for providing registration and travel support for many of the attendees this year.

We hope that you take advantage of this opportunity for fellowship and to make new friends. We ask you to remember to take of yourself and each other.

Be safe, and enjoy the conference!

Rob Schoen, Amanda Tazaz, and Claire Riddell (Conference Co-Chairs)

@CGIconference

#CGIFlorida

#ShareYourCGIStories

Submit conference photos for use in our closing session to: info@cgiconference.com

Location: Majestic 4 and 5

'I like it instead of maths': Cognitively Guided Instruction as inclusive pedagogy

Lio Moscardini

This presentation places CGI in the context of the classroom as a place for everyone. We will consider international developments which promote the rights of every child to access an inclusive and quality education and reflect on potential barriers to participation and learning. During the session we will share stories from studies of CGI with children with learning difficulties in Scotland and from a collaborative research project funded through Scottish Government that developed CGI in three elementary schools in Scotland.



Speaker Bio: Dr. Lio Moscardini teaches on inclusive education at the Royal Conservatoire of Scotland (RCS). Previously, Dr. Moscardini taught in mainstream and special education sectors and was Depute Headteacher of a school for pupils with learning difficulties. He holds a Scottish Government ministerial appointment as a specialist member of the Additional Support Needs Tribunal for Scotland, and he was a member of the team commissioned by the Scottish Government to develop the National Framework for Inclusion.

Dr. Moscardini has led the introduction of CGI into schools across Scotland. In 2019, one of those schools won a prestigious award from the Scottish Government's education body, Education Scotland, for increasing student achievement in numeracy.

Location	Title	Presenter
Majestic 6	Supporting collective engagement in whole-class discussions	Nick Johnson
Royal 1	Multiplication: What makes it distinct from addition?	James Brickwedde
Royal 2	Making Sense of Children's Division Strategies	Linda Jaslow
Royal 3	Students' strategies for multidigit multiplication	Jae Baek
Diamond 1	No session occurring in this room at this time.	
Diamond 2	No session occurring in this room at this time.	
Silver	"Does it Make Sense?": Problem Solving with Students with Disabilities	Andrew Gael
Nautilus A	Exploring the Impact of CGI on Secondary Education	Farshid Safi/Siddhi Desai
Nautilus B	CGI and Standardized Assessments: A Problem Solving Dream!	Lina Khosrovian
Nautilus C	Supporting CGI through an online video-based approach RESCHEDULED TO 6/30 AT 10:30AM in HARBOR B	Ho-Chieh Lin/Theodore Chao
Harbor A	When CGI Opened a Coaching Window	Becky Holden
Harbor B	Math Rehab: Recovering from our own math learning experiences	Alyssa Foss
Harbor C	Cultivate Joy: Culturally Relevant Stories & CGI	Stefanie Mathewson

Supporting collective engagement in whole-class discussions

Location: Majestic 6

Nick Johnson, San Diego State University
nick.johnson@sdsu.edu

Teachers often begin whole-class discussions by inviting students to explain how they solved the problem. But it can be challenging to ensure that students make the details of their thinking explicit while also supporting other students to contribute in ways that are mathematically substantive. This session will explore new research on how classrooms design for and support collective engagement in math discussions.

Multiplication: What makes it distinct from addition?

Location: Royal 1

James Brickwedde, Project for Elementary Mathematics
jbrickwedde@projectmath.net

Multiplication is distinct from addition. It requires making units of units, monitoring unit transformation and coordination. One needs to think in scale. Using student work, this section will analyze the attributes of multiplication and explore instructional tasks that support students' progressions in being able to think multiplicatively rather than additively.

Making Sense of Children's Division Strategies

Location: Royal 2

Linda Jaslow, CGI Math Teacher Learning Center
lindajaslow.cgi@gmail.com

In this session, we will analyze division strategies used by children and identify the mathematics embedded in their solutions. We will look at the generalized principles applied in their invented strategies and in making sense of the problem (s).

Students' strategies for multidigit multiplication

Location: Royal 3

Jae Baek, Illinois State University
jaebaekcgi@gmail.com

In this session, I will share different strategies that students use for multidigit multiplication problems in the context of equal grouping. Participants will discuss different types and levels of student strategies and mathematical properties embedded in each type of the strategies. They will discuss instructional strategies that support students' strategy development.

"Does it Make Sense?": Problem Solving with Students with Disabilities

Location: Silver

Andrew Gael, Cooke School and Institute
agael@cookeschool.org

Making sense of problems is at the heart of high-quality mathematics curricula. Too often, students with disabilities are excluded from these rich sense-making opportunities because of challenges with language processing. This session will explore techniques that can be implemented to provide them access to maximize their learning potential.

Exploring the Impact of CGI on Secondary Education

Location: Nautilus A

Farshid Safi, University of Central Florida
farshid.safi@ucf.edu

Siddhi Desai, University of Central Florida
siddhi.desai@knights.ucf.edu

While CGI related work has primarily focused on elementary grade levels, it has the potential to inform instructional practices at the secondary level. Participants will engage in K-8 focused student-centered tasks and discuss strategies that support students' mathematical learning, and promote equitable and accessible learning spaces for every student.

CGI and Standardized Assessments: A Problem Solving Dream!

Location: Nautilus B

Lina Khosrovian, UCLA Mathematics Project, Los Angeles Unified School District
lina.khosrovian@lausd.net

Let's share our stories' and dive deep into understanding the connection of CGI and Standardized Assessments. How might we best support and prepare our students for the standards-aligned assessments alongside CGI? Let's work together and understand how we can whilst lifting our voices and sharing our stories!

Supporting CGI through an online video-based approach

Location: Nautilus C

Ho-Chieh Lin, The Ohio State University
lin.2532@osu.edu

RESCHEDULED TO 6/30 AT 10:30AM in HARBOR B

Theodore Chao, The Ohio State University
chao.160@osu.edu

The pandemic has forced educators to shift their instruction to an online or hybrid mode. However, how to remotely engage students in problem solving and peer discourse continues to be challenging. We propose an innovative video-based approach for teachers to promote CGI effectively online.

When CGI Opened a Coaching Window

Location: Harbor A

Becky Holden, Trinity School
taysmom1@gmail.com

CGI offers problems anchored in context. Students' strategies, flexibility, and willingness to solve problems were revealed when solving a task situated in contexts. Join us to experience and examine student thinking in relevant contexts, and how they guided and can guide coaching conversations.

Math Rehab: Recovering from our own math learning experiences

Location: Harbor B

Alyssa Foss, Hillsborough County Public Schools
alyssajfoss@gmail.com

Teaching meaningful math is hard. Teaching math in a way that you haven't experienced yourself is even harder. How are we supposed to give our students learning experiences that we have never had ourselves? What does it feel like to LEARN math through Cognitively Guided Instruction? How do our personal experiences learning math impact our instruction? In this session we will tackle these questions and more as we share our math stories and learn ways to "recover" from our own learning experiences so that we can do better for our students.

Cultivate Joy: Culturally Relevant Stories & CGI

Location: Harbor C

Stefanie Mathewson, SMMUSD Roosevelt Elementary School, UCLA Mathematics Project, Cotsen Foundation, CSUN Department of Elementary Education
smathewson@me.com

Explore the relationship between culturally relevant stories and authentic mathematical contexts. Consider their collective impact on student thinking. Culturally relevant stories inspire educators to thoughtfully and joyfully collaborate in designing relevant problem contexts and meaningful unpacking sequences to hold space for continued thought about important social and mathematical ideas.

Location: Majestic 4 and 5

Humanizing Moments: Creating Joyful Mathematical Moments for All Students

Lachanda Garrison

Every student comes into our classroom with a variety of life experiences. How do we learn more about our students and their experiences? Rich Identity Tasks use a storytelling approach that humanizes our students' experiences in the mathematics classroom. This powerful instructional approach can support math educators in learning more about their students while also providing intentional mathematical moments where students feel seen, heard, and valued.



Speaker Bio: Lachanda Garrison is a teacher leader at the U.S. Department of Defense's Bahrain Elementary School in Manama, Bahrain. She teaches a diverse group of international and U.S. military-connected students. Her 15 years as an educator also includes teaching 1st and 3rd grade, multi-age grades, and serving as an instructional coach in elementary mathematics and literacy.

Lachanda is a 2021 State Teacher of the Year and 2020 recipient of the Presidential Award for Excellence in Mathematics and Science Teaching (PAEMST). She uses her platform to advocate for students, teachers, and the education profession. Her passion is making learning relatable for students by humanizing them and their learning experiences.

Location	Title	Presenter
Majestic 6	Deep Dive into Direct Modeling for Fraction Story Problems	Victoria Jacobs/Heather Lindfors-Navarro/Susan Empson
Royal 1	Centering Students with Disabilities in the CGI Math Classroom	Joanna Hayman
Royal 2	Let's Share Stories NOT Problems! Leveraging Literacy with the CGI Framework	Deborah Peart
Royal 3	Counting Collections: Going Deeper PreK-3	Angela Turrou
Diamond 1	Developing Fraction Sense: An Entry Point for All	Nicky Martin
Diamond 2	Exploring Counting Principles that Support Problem Solving	Patricia Goodman
Silver	Sharing Strategies: Beyond Show and Tell	Lori Price
Nautilus A	Bringing CGI into Secondary Classrooms	Jill Bue/Ben Schwanke/Josephine Anderson
Nautilus B	Moving beyond the sign rules for integers	Jessica Bishop/Ian Whitacre
Nautilus C	Why should future teachers solve story problems within a Base-5 number system? Come find out!	Kevin LoPresto
Harbor A	What Should We Talk About?: Planning Purposeful Dialogue in CGI Classrooms	Courtney Flessner/Ryan Flessner
Harbor B	Supporting CGI through an online video-based approach For session description see page 7	Ho-Chieh Lin/Theodore Chao
Harbor C	If you give a guinea pig $\frac{3}{4}$ of a carrot... For session description see page 23	Christine Allen

Deep Dive into Direct Modeling for Fraction Story Problems

Location: Majestic 6

Vicki Jacobs, University of North Carolina at Greensboro
vrjacobs@uncg.edu

Heather Lindfors-Navarro, University of Missouri
lindfors-navarro@mail.missouri.edu

Susan Empson, University of Missouri
empsons@missouri.edu

We will use video and student work to explore the richness and variety of direct modeling strategies for fraction story problems. Highlights will include consideration of embedded learning opportunities about fraction concepts and operations. This session is motivated by the extensive use of direct modeling strategies in our recent study.

Centering Students with Disabilities in the CGI Math Classroom

Location: Royal 1

Joanna Hayman, UCLA Mathematics Project
hayman@gseis.ucla.edu

This sessions will nudge participants to consider how students with disabilities are positioned mathematically and will investigate how we, as teachers, might use our students' own thinking as an advocacy tool. Our conversations, while framed in current research, will revolve around the stories, perspectives, and math thinking of students with disabilities as we co-construct our understanding of structures that allow for students with disabilities to thrive as mathematicians.

**Let's Share Stories NOT Problems!
Leveraging Literacy with the CGI Framework**

Location: Royal 2

Deborah Peart, My Mathematical Mind
msdeborahpeart@gmail.com

Word problems have a bad reputation and cause anxiety for many students and adults. Since the CGI framework is grounded in word problems, it's important to give students access to math stories they can relate to and comprehend. Students need to leverage the reading strategies they've already learned, so that the reading doesn't get in the way of the mathing. This session will focus on visualizing for mathematical understanding. Visual representations can support the sense making necessary to tackle math concepts embedded within stories and provide more equitable instruction for students who may still be learning to read. This way all students can solve math story problems with confidence and maybe even joy.

Counting Collections: Going Deeper PreK-3

Location: Royal 3

Angela Turrou, UCLA
achan@gseis.ucla.edu

Counting collections and making a written representation of the count may seem “simple”, yet the activity provides ample space for exploration of complex mathematical terrain as children make connections across physical quantities and symbolic notation. This session highlights children’s mathematical thinking on counting and connections to problem solving across preK-3.

Developing Fraction Sense: An Entry Point for All

Location: Diamond 1

Nicky Martin, Epiphany School
nmartin@epiphanyschool.org

This session will provide a variety of strategies for engaging students in exploring and grappling with unit fractions as numbers. Some examples include number talks with open number lines, high leverage games, and equal share problems.

Exploring Counting Principles that Support Problem Solving

Location: Diamond 2

Patricia Goodman, Little Rock School District
patricia.goodman@lrsd.org

Children attempting to solve single digit addition and subtraction problems first use Direct Modeling strategies before later developing Counting and Derived Fact strategies that involve more abstract thinking. This session will explore how the Counting Principles provide the foundation that enables students to move beyond Direct Modeling strategies. Participants will analyze and discuss students’ strategies viewed in videos and student work samples. Activities that help develop the Counting Principles and ideas for supporting students in problem solving will also be shared.

Sharing Strategies: Beyond Show and Tell

Location: Silver

Lori Price, St. Johns County Schools
lori.price@stjohns.k12.fl.us

In this session we will discuss how sharing student strategies and making connections across those strategies impacts students’ progression toward the use of more efficient and abstract strategies.

Bringing CGI into Secondary Classrooms

Location: Nautilus A

Jill Bue, Roseville Area Schools
jill.bue@isd623.org

Ben Schwanke, Roseville Area Schools
ben.schwanke@gmail.com

Josephine Anderson, Concordia Academy
josephine.anderson@ymail.com

Cognitively Guided Instruction has focused on elementary. How can we use this knowledge to benefit students as they continue to move from arithmetic to algebraic thinking at the secondary level? This session will discuss the research and show how furthering the use of CGI strategies creates deeper mathematical understanding for all students.

Moving beyond the sign rules for integers

Location: Nautilus B

Jessica Bishop, Texas State University
jbishop01@txstate.edu

Ian Whitacre, Florida State University
iwhitacre@fsu.edu

In this session, we share problem-type categories for integer addition and subtraction that vary in difficulty and evoke different types of reasoning. Similar to the CGI problem-type categories for whole-number operations, our problem-type categories for open number sentences and framework for Ways of Reasoning provide an organizing structure for integer-specific knowledge for teaching. The frameworks around with this session are organized are consistent with core tenets of CGI and based on research. Specifically, our frameworks are (a) grounded in student thinking (developed on the basis of over 250 interviews with students across multiple grades), (b) respectfully present children's strategies as mathematically sensible and reasonable, (c) identify problem-types on the basis of structural features that are related to problem difficulty and differences in children's strategies (similar to how the CGI add/subt problem types categories were created), and (d) developed and organized using a grain size that is accessible to teachers, yet reflect qualitative differences in ways of reasoning.

Why should future teachers solve story problems within a Base-5 number system? Come find out!

Location: Nautilus C

Kevin LoPresto, Francis Marion University
klopresto@fmarion.edu

This session will share how future teachers in a required mathematics content course learned about an alternate base number system by solving CGI based story problems where the values were given in Base 5. Participants who bring a laptop or tablet will have the opportunity to solve some of these problems via Desmos activity builder and experience what the future teachers experienced and hopefully answer the question about why learning about alternate base numbers systems is important.

THURSDAY, JUNE 30, 2022, 10:30 A.M. – 11:45 A.M

**What Should We Talk About?:
Planning Purposeful Dialogue in CGI Classrooms**

Location: Harbor A

Courtney Flessner, Central Indiana Educational Services Center; Indiana University
cflessner@ciesc.org

Ryan Flessner, Butler University
rflessne@butler.edu

Intentionally engaging students in purposeful dialogue is an integral tool in learning in our CGI classrooms. In this session, participants will develop an understanding of monitoring students' mathematical thinking, selecting and sequencing student work, and making specific pedagogical moves that use student strategies as a catalyst for classroom discussion.

THURSDAY, JUNE 30, 2022, 1:15 P.M. – 2:30 P.M

Location	Title	Presenter
Majestic 6	Collective Learning: A District-University Partnership CANCELED	Megan Franke/Angela Turrou/Nick Johnson
Royal 1	Responding to Student Thinking Through Curriculum Materials	Corey Drake/Mike Wallus
Royal 2	Let's Talk About Talk	Melissa Canham/Glenda Martinez/Julie Yearsley
Royal 3	"What's the connection?" CGI and Building Fact Fluency	Lisa Emond/Lynda Callahan/Michelle Choice
Diamond 1	Understanding Fractions-Only "PART" of the story!	Lynne Stratton
Diamond 2	My Student's Journey with problem solving and counting	Katrina Long
Silver	Learning To Support Student-Led Discussions In Math Class	Cheryl Queen
Nautilus A	The Power of Properties	Tammy Skelton/Laura Kent
Nautilus B	Counting Collections as Context for Liberation	Jenna Laib/Kassia Wedekind
Nautilus C	The AIMM Project: Stories of Struggle and Success	Debra Plowman/Olof Steinhorsdottir
Harbor A	Assessments and beyond	Remona Moore/Pam Allen
Harbor B	Getting Students Thinking with Non-Routine Tasks	Alison Williams/Sanjana Bryant
Harbor C	Problem-Posing: Connecting Identity, Place and Story	Janice Novakowski/Jennifer Carter

Collective Learning: A District-University Partnership

Location: Majestic 6

Megan Franke, UCLA
mfranke@ucla.edu

CANCELED

Angela Turrou, UCLA
achan@gseis.ucla.edu

Nick Johnson, San Diego State University
nick.johnson@sdsu.edu

We partnered with a large urban district for over 5-years to design and implement ongoing CGI learning for administrators, teachers, and students. We will share our work together to meet the demands of the system and the needs of people with varied histories, experiences, cultural resources, and views of learning.

Responding to Student Thinking Through Curriculum Materials

Location: Royal 1

Corey Drake, The Math Learning Center
coreyd@mathlearningcenter.org

Mike Wallus, The Math Learning Center
mikew@mathlearningcenter.org

Curriculum materials are often viewed as constraints, limiting teachers' capacity to respond to children's mathematical thinking and support the development of positive mathematics identities. We will share ways that curriculum materials can instead be a tool for responsive and equitable teaching through strengths-based assessment and differentiation.

Let's Talk About Talk

Location: Royal 2

Melissa Canham, Downey Unified School District
mcanham@dusd.net

Glenda Martinez, Downey Unified School District
gmartinez@dusd.net

Julie Yearsley, Downey Unified School District
jyearsley@dusd.net

Facilitating productive student to student conversations about mathematics is a difficult task. In this session we will discuss how to engage all students in a rich dialogue during a lesson share-out. We will examine classroom videos and participate in an activity to discuss how a teacher can guide students' mathematical thinking through student discourse.

"What's the connection?" CGI and Building Fact Fluency

Location: Royal 3

Lisa Emond, Forest Park School District 91
eemond@fpsd91.org

Lynda Callahan, Forest Park School District 91
lcallahan@fpsd91.org

Michelle Choice, Forest Park School District 91
mchoice@fpsd91.org

Participants will learn how to integrate CGI techniques to build meaningful fact fluency within and across their classrooms. Activities will enable participants to build a common understanding of fluency, based on the Five Fundamentals of Fluency, understanding the trajectory to develop efficient and flexible strategies. A one-on-one assessment tool with rubrics will be introduced. Grades K-2, but all are welcome. (FYI: This work is an outgrowth of a virtual book study that we, the presenters, participated in: "Math Fact Fluency: by Jennifer Bay-Williams and Gina Kling.)

Understanding Fractions-Only "PART" of the story!

Location: Diamond 1

Lynne Stratton, Louisiana Tech University and CGI Math Teacher Learning Center
lynne10stratton@gmail.com

Participants will engage in solving a problem involving computation of fractions. Workshop presenter will model possible questioning techniques by selecting strategies to discuss. This conversation will be intended to develop, extend, and promote conceptual understanding, properties of operation, and other mathematical relationships. Developmental trajectories of students will also be highlighted.

My Student's Journey with problem solving and counting

Location: Diamond 2

Katrina Long, Little Rock School District
katrina.long@lrsd.org

I will share my journey teaching math during summer school to 1st grade students. I will share data and videos of how their problem solving has improved and their number sense has increased. The data and videos will show the progress they made in just 1 month of using problem solving and counting tasks. It will also show that they sustained this progress in their 2nd grade year. For example, I have data that shows how some of the students started the summer by incorrectly counting by ones and are now grouping correctly when given a counting task. I will share the problems and tasks I used to achieve this as well. I will also share how their current teacher is using the same practices to ensure their problem solving and number sense continues to grow. I hope to encourage teachers that just spending some time at least on problem solving and counting tasks that it can impact their student's number sense and problem solving capabilities tremendously.

Learning To Support Student-Led Discussions In Math Class

Location: Silver

Cheryl Queen, Bentonville Schools
cqueen@bentonvillek12.org

In this interactive session, you will hear about a teacher's journey building powerful student-led discussions. She will begin by sharing how she begins the year by building a strong classroom culture. With a class mantra "Don't leave anyone behind," students are highly engaged and driven to advocate for themselves and others. During this session, teachers will be given the opportunity for discussion and engage in some of the classroom examples provided.

The Power of Properties

Location: Nautilus A

Tammy Skelton, Hellstern Middle School, Springdale School District
tskelton@sdale.org

Laura Kent, University of Arkansas
lkent@uark.edu

Students use of relational thinking strategies for solving problems is an important aspect of CGI professional development. This session explores how students apply the identity property to efficiently solve fraction and proportion problems. Instructional practices that elevate student participation in discussions about properties of operations will also be shared.

Counting Collections as Context for Liberation

Location: Nautilus B

Jenna Laib, Public Schools of Brookline
jennifer_laib@psbma.org

Kassia Wedekind, independent
omohundro@gmail.com

In every conversation with students, teachers influence student thinking and identity. Together we will consider how counting collections can be a liberatory space “to practice freedom” for both children and their teachers (Shalaby, 2017). Participants will analyze classroom vignettes, consider research, and leave with practical ideas for generative teacher moves.

The AIMM Project: Stories of Struggle and Success

Location: Nautilus C

Debra Plowman, Texas A & M University-Corpus Christi
debra.plowman@tamucc.edu

Olof Steinhorsdottir, University of Northern Iowa
olly.steintho@uni.edu

The Advancing Inquiry in Middle Mathematics PD supported middle grades teachers to build on student thinking through problem solving rather than teaching procedures first. Participants will hear these teacher stories about what happened in their classrooms using the CGI PD principles, what their struggles were like, and what they learned about mathematics while teaching.

Assessments and Beyond

Location: Harbor A

Remona Moore, Pulaski County Special School District
rdmoore678@gmail.com

Pam Allen, The Wilbur D. Mills co-op
pallen@wdmesc.org

In this session, participants will learn how to use the CGI Fact Fluency Assessment and other related assessments to plan for small group instruction. In addition, we will look at types of questions we can use in those small groups to help move our students in their mathematical understanding.

Getting Students Thinking with Non-Routine Tasks

Location: Harbor B

Alison Williams, Chula Vista Elementary School District
alison.williams@cvesd.org

Sanjana Bryant, Encinitas Union School District
sanjana.bryant@eusd.net

Non-routine tasks get kids thinking! We will explore various types of warm-ups and story problems that lend themselves to this work. By opening up our instructional practice to non-routine tasks, teachers can create more opportunities for thinking and authentic discourse to occur. In this session, we will share results of using high-leverage tasks with diverse populations. Participants will enjoy engaging with the tasks and sharing ideas of implementation with colleagues.

THURSDAY, JUNE 30, 2022, 1:15 P.M. – 2:30 P.M

Problem-Posing: Connecting Identity, Place and Story

Location: Harbor C

Janice Novakowski, Richmond School District/University of British Columbia
jnovakowski@sd38.bc.ca

Jennifer Carter, SD #22 Vernon
jcarter@sd22.bc.ca

How does problem-posing provide opportunities for students to connect to identity, place and story through mathematics? In this session, students' math problems/stories will be shared and analyzed from ongoing district CGI projects. Participants will create their own math stories to experience how shared story experiences build community and create opportunities to connect to place and identity. Teacher and student reflections on the impact of this project will be shared.

Location	Title	Presenter
Majestic 6	Learning Together To Support Mathematical Argumentation	Elham Kazemi/Katie Mitchell/Bethany Moffatt/Sasha Roethe/Megan Tellez/Holly Megan Thompson/Puja Patel
Royal 1	Place value as a multiplicative relations	James Brickwedde
Royal 2	Engaging Early Math Reasoning in Family Settings CANCELED	Molly Daley
Royal 3	Choral Counting: Increasing Student Engagement by Extending & Connecting Students' Ideas Over Multiple Days	Cathy Nguyen/Chelsea Schneider/Vanessa Hayward
Diamond 1	If you give a guinea pig $\frac{3}{4}$ of a carrot... Session moved to 6/30 at 10:30 am in Harbor C	Christine Allen
Diamond 2	Spreadsheets for Success - Using Formative Assessments to Monitor and Regulate Learning in Primary	Kimberly Eloy
Silver	Kids Count! Exploring Cardinality and Base Ten in Kindergarten	Laura Steele/Chris Sadler
Nautilus A	Living in the Thinking Classroom: 1 Year of Full Immersion in Liljedahl's Practices	Adrienne Paul
Nautilus B	Identifying What Students Really Need	Danielle Moore
Nautilus C	Comparing Fractions-A look at children's strategies	Joan Case
Harbor A	Changing word problem solving trajectories with CGI	Kelly De Varona/Monika Moorman
Harbor B	Relational Thinking and the Operations in Elementary Grades	Dennis Regus/Karon Akins
Harbor C	Lifting Student's Voices through Culturally Relevant Stories	Farinaz Safi/Janaki Nagarajan/Siddhi Desai

Learning Together To Support Mathematical Argumentation

Location: Majestic 6

Elham Kazemi, University of Washington
ekazemi@uw.edu

Katie Mitchell, Lakeridge Elementary School
Kathryn.Mitchell@rentonschools.us

Bethany Moffatt, Lakeridge Elementary School
moffattb@cityu.edu

Sasha Roethe, Lakeridge Elementary School
sasha.roethe@rentonschools.us

How do our commitments to place the diversity and richness of children’s thinking, voices, and experiences at the heart of instruction change what and how we need to learn together? This interactive session focuses on supporting the practice of mathematical argumentation in the upper grades. We will examine classroom tasks and student thinking to help participants consider how to orchestrate discussions so that students notice patterns, make claims, and develop and revise arguments. By doing so, we also share how we organized our collective inquiry and the surprises and challenges we encountered.

Place value as a multiplicative relations

Location: Royal 1

James Brickwedde, Project for Elementary Mathematics
jbrickwedde@projectmath.net

Place value, at its core, is a rate of ten. Using multiplication-addition and measurement division problem types with 10 as the organizing unit, students begin to construct this understanding. This session explores student work and various CGI-based instructional tasks that have been used to nurture that "a digit in one place represents ten times/one-tenth what it represents in the place to its right/left."

Engaging Early Math Reasoning in Family Settings

Location: Royal 2

Molly Daley, Education Service District 112
molly.daley@esd112.org

CANCELED

Exploring children' math ideas can be surprising and joyful. As educators, how can we support parents and caregivers to notice and respond to mathematical moments as they happen? This session will provide strategies and tools designed to invite family partnership in supporting math in the early years.

**Choral Counting: Increasing Student Engagement
by Extending & Connecting Students' Ideas Over Multiple Days**

Location: Royal 3

Cathy Nguyen, Lawndale Elementary School District
cathynguyen21@gmail.com

Chelsea Schneider, Lawndale Elementary School District
chelsea_schneider@lawndalesd.net

Vanessa Hayward, Lawndale Elementary School District
vanessa_hayward@lawndalesd.net

We all know the powerful learning opportunities that come from Choral Counting with students. This session is for participants who are familiar with Choral Counting who want to create extended engagement and learning opportunities for students that build upon their understanding over multiple days. We will share our experience with extending this routine and the positive impact it had on student learning and engagement in our district. Participants will have the opportunity to think about possible next steps with a Choral Count and draw connections between this routine and the CGI principles.

If you give a guinea pig $\frac{3}{4}$ of a carrot...

Location: Diamond 1

Christine Allen, UCLA Math Project
mamaknowsmath@gmail.com

Session moved to 6/30 at 10:30 am in Harbor C

Imagine you posed a problem to your students and then paused time to dive deep into the details of their thinking with your colleagues. Let's do it together and explore the brilliance of student strategies in the world of fractions; thinking together around, what might come next? This session is designed as a workshop to engage teachers in deeply thinking about students strategies in the world of multiple groups measurement division. We will solve a math problem, make some predictions around student thinking, explore student work and the characteristics of student strategies, collaborate on next steps and connect with the ECM framework.

**Spreadsheets for Success - Using Formative Assessments
to Monitor and Regulate Learning in Primary**

Location: Diamond 2

Kimberly Eloy, Broward County Public Schools Forest Hills Elementary
kimberly.elay@browardschools.com

Data. How can I be aware of where my students are and make instructional decisions based on the data? An intermittent running record of student understanding can be recorded and utilized to understand and support students. Excel Spreadsheets and organizational techniques will be shared. An intermediate understanding of Excel is optimal.

Kids Count! Exploring Cardinality and Base Ten in Kindergarten

Location: Silver

Laura Steele, Wright Elementary School
Steelel@okaloosaschools.com

Chris Sadler, Okaloosa County School District
sadlerc@okaloosaschools.com

This session will focus on the importance of counting in primary math classrooms. We will begin with defining the counting principles and sharing some insights we have developed through listening and watching children count. We will discuss making counting transparent in the classroom through a daily routine that has students working through a process of build it, model it, count it, and write it. We will finish the session with a discussion on where competent counting leads to in mathematics.

**Living in the Thinking Classroom:
1 Year of Full Immersion in Liljedahl's Practices**

Location: Nautilus A

Adrienne Paul, St. Albans School
apaul@stalbansschool.org

What options exist for a middle school looking to dismantle traditional honors sections of math classes? I will share how we used variations of the 14 pedagogical practices researched by Peter Liljedahl and presented in his book "Building Thinking Classrooms" (these practices include triad collaboration, vertical non-permanent surfaces, quiz exemptions, etc.). Through a problem-based curriculum, discovery-based learning, justification, and other CGI cornerstone techniques, my colleagues and I worked to provide equitable opportunities to our 7th-grade pre-algebra students.

Identifying What Students Really Need

Location: Nautilus B

Danielle Moore, Teaching One Moore
teachingonemoore@gmail.com

When students get the answer to a problem, whether it is correct or incorrect it is important we know why. We will discuss and identify five different lenses through which we can view student work, identify student needs, and provide thoughtful and responsive guidance and feedback.

Comparing Fractions-A look at children's strategies

Location: Nautilus C

Joan Case,
jmcase3@aol.com

In this session we will look at the relational thinking strategies children naturally use when comparing fractions. We will explore one fourth grader's thinking and look at what these strategies reveal about a student's understanding of fractions. We will conclude by discussing how teachers can nurture and support this understanding with their own students.

Changing word problem solving trajectories with CGI

Location: Harbor A

Kelly De Varona, Broward County Public Schools
kdevarona@bellsouth.net

Monika Moorman, Broward County Public Schools
moormm25@gmail.com

This session will focus on how seamless integration of CGI strategies into the existing math curricula transformed learning (and teaching) in two Florida public elementary schools. Two seasoned educators who participated in the CGI study for two years will reflect on the impact of CGI on their pedagogy and student learning.

Relational Thinking and the Operations in Elementary Grades

Location: Harbor B

Dennis Regus, Riverside County Office of Education
dregus@rcoe.us

Karon Akins, Riverside County Office of Education
kakins@rcoe.us

Come explore ideas around the relationships between operations and how focusing on these relationships and how helping students to create conjectures and generalizations can facilitate algebraic thinking in the early grades and lead to success in future math classes. We will be working with True/False statements and representational proofs.

THURSDAY, JUNE 30, 2022, 2:45 P.M. – 4:00 P.M

Lifting Student's Voices through Culturally Relevant Stories

Location: Harbor C

Farinaz Safi, Seminole County School District
farinazsafi@gmail.com

Janaki Nagarajan, Kent School District
janaki.aleena.nagarajan@gmail.com

Siddhi Desai, University of Central Florida
siddhi.desai@knights.ucf.edu

Participants will engage in mathematical tasks through a lens of culture and identity. Primary focus will be on rejoicing and celebrating mathematical stories as we support student's mathematical learning, and foster and promote a sense of belonging for all students within our mathematics classrooms.

Location: Majestic 4 and 5

They are Talking, Are We Listening? Stories of Students with Disabilities as Doers and Thinkers of Mathematics

Jessica Hunt

Calls for equitable mathematics learning opportunities for students with disabilities have routinely been made over the past 30 years. Framing mathematics intervention from a position of “What do these students know and how can I use it?” creates and sustains views of students as mathematically enabled, removing the “problem” from the student and placing it, as a challenge, on the instructional design and interactions between teachers and students. In this talk, Dr. Hunt shares experiences and stories from her own work within asset based learning environments in mathematics for students with disabilities. Her talk aims to empower teachers, researchers, and educational leaders to use interventions as spaces to restore opportunities students have to build agency and make sense of their own reasoning.



Speaker Bio: Dr. Jessica Hunt began her career in education as a middle school mathematics teacher in a technology demonstration school in Florida. From that work, she grew to love teaching students with learning disabilities (LD). Hunt argues that mathematics instruction should work to (a) uncover students’ strengths, (b) give them access to their mathematical reasoning, and (c) support the advance of that reasoning. Her research supports a re-conceptualization of research and instructional practice using practices from both mathematics education and special education to support students with LD to be thinkers and doers of mathematics. Specifically, she designs and tests asset based learning environments, such as game enhanced curriculums, to understand, support, and extend the processes of student learning. Mounting empirical evidence across both fields suggests educational disparities these students experience are caused by opportunity gaps that stem from remedial instruction as opposed to instruction that affords students access to their own reasoning from which to build in mathematics proficiency and agency.

Location	Title	Presenter
Majestic 6	Students' understanding of fraction division	Jae Baek/Linda Jaslow
Royal 1	Contar Colecciones y Resolver Cuentos Matemáticos	Anna Arredondo-Kim
Royal 2	Student Thinking at the Center of Teacher Learning	Jody Guarino/John Drake/Michelle Sperling
Royal 3	Primary Math Instruction that Creates Strong Mathematicians	Tricia Ingle
Diamond 1	Infuse CGI into your Math Curriculum	Corrine Cobb/Dayeashia Viel
Diamond 2	Multilingual Learners and Math Discourse: Leveraging Students Cultural and Linguistic Resources in Primary Classrooms to Create Access and Participation	Cristina Navarro-Aguirre
Silver	Multiplication and Division Connections	Candice Coolin/April Snyder
Nautilus A	Student thinking & problem solving in the middle school classroom	Brandon McMillan/Theodore Sagun/Janet Lee-Ortiz
Nautilus B	Missing Value Problems Develop Proportional Reasoning	Olof Steinhorsdottir/Debra Plowman
Nautilus C	Integrating Restorative Justice in CGI Practice	Shante Stuart McQueen
Harbor A	Raising the Voices of Second Language Learners in the Primary CGI Classroom	Pamela Holguin-Brown/Kimberly Lewis
Harbor B	Question With a Purpose: Changing the Story with Focused Inquiry	Tara Sanders/Wendy Green/Thoma Thacker
Harbor C	Culture and identity in the Math Classroom	Janaki Nagarajan/Jenna Laib

Students' understanding of fraction division

Location: Majestic 6

Jae Baek, Illinois State University
jaebaekcgi@gmail.com

Linda Jaslow, CGI Math TLC
lindajaslow.cgi@gmail.com

In this session, we will share different strategies that students use for fraction division problems in the context of equal sharing. Participants will discuss levels of students' strategies and mathematical concepts embedded in each level of the strategies. They will discuss mathematical representations of the strategies and how to support students' thinking.

Contar Colecciones y Resolver Cuentos Matemáticos

Location: Royal 1

Anna Arredondo-Kim, LAUSD, UCLA MP, CSUDH
ala8812@lausd.net

Counting Collections and Math Story Problems help emergent bilingual students develop language. In this workshop, conducted primarily in Spanish, we will analyze how these two daily practices can be leveraged for language practice as well as supporting important mathematical concepts.

Student Thinking at the Center of Teacher Learning

Location: Royal 2

Jody Guarino, Orange County Department of Education
jguarino@ocde.us

John Drake, Newport Mesa Unified School District
jcdrake@nmusd.us

Michelle Sperling, Newport Mesa Unified School District
msperling@nmusd.us

Interested in learning with a group of colleagues centered in student work? Experience a looking at student work protocol that has transformed teaching and learning of teachers, administrators, and students in one district through deep reflection on student mathematical thinking. Connect student thinking to classroom practice.

Primary Math Instruction that Creates Strong Mathematicians

Location: Royal 3

Tricia Ingle, Mill Creek Academy
tcingle69@gmail.com

In this session you will learn how to set up a math notebook for the year posing problems that will engage and keep your students thinking. Math notebooks are a wonderful way to show a students' understanding and growth of math concepts such as number sense and place value throughout the year.

Infuse CGI into your Math Curriculum

Location: Diamond 1

Corrine Cobb, Volusia County Schools
cacobb@volusia.k12.fl.us

Dayeashia Viel, Volusia County Schools
dmviel@volusia.k12.fl.us

From the eyes of an administrator, district level teacher on assignment, and classroom teacher we will explore how you can use the CGI techniques in your classroom with a provided curriculum from your district. Participants will see the break down of the math block and a modeled lesson of infusing a provided curriculum with CGI strategies. We will use Envision and Ready to show how to use the provided curriculum with CGI. This session can benefit new CGI users that need more guidance on infuse their provided curriculum to make CGI work in their classroom. Participants are encouraged to bring their curriculum to look at the layout and receive guidance on how to incorporate the CGI methods.

**Multilingual Learners and Math Discourse:
Leveraging Students Cultural and Linguistic Resources in Primary Classrooms to Create Access and Participation**

Location: Diamond 2

Cristina Navarro-Aguirre, Independent Consultant/UCLA Math Project
navarroa@usc.edu

Multilingual students deserve access to learning mathematics with understanding. In this session you will engage in mathematics and will watch children in the primary grades as they explore and communicate their mathematic ideas in a way that makes sense to them. Together we will uncover the mathematics Multilingual students are understanding, and craft moves that are responsive to their emerging mathematical ideas and language skills. We will discuss the use of strategies, tools and supportive moves that are intentional and honor students' identity, culture, and linguistic assets.

Multiplication and Division Connections

Location: Silver

Candice Coolin, Annette P. Edwns Elementary
Candice.coolin@okaloosaschools.com

April Snyder, Annette P. Edwins Elementary
April.Snyder@okaloosaschools.com

Allowing students to see multiplication and division are related. Students can use multiplication to help with division facts. The easiest way to establish a relationship between multiplication and division on an intuitive level is through the array model, which equally suits both operations.

Student thinking & problem solving in the middle school classroom

Location: Nautilus A

Brandon McMillan, Brigham Young University
brandon.g.mcmillan@byu.edu

Theodore Sagun, University of California Los Angeles
trsagun@ucla.edu

Janet Lee-Ortiz, Los Angeles Unified School District
ms.j.lee@gmail.com

What does CGI look like in middle school? See ways we engage 7th grade students through tasks that surface and build on mathematical thinking. We will highlight the importance of valuing students, using responsive teaching to build on what students know, and pushing back on deficit notions of learning loss.

Missing Value Problems Develop Proportional Reasoning

Location: Nautilus B

Olof Steinhorsdottir, University of Northern Iowa
olly.steintho@uni.edu

Debra Plowman, Texas A&M University
Debra.plowman@tamucc.edu

Missing Value Proportion (MVP) problems are a powerful tool to develop understanding of proportion. We will explore features of MVP problems, analyze and sort student strategies, and discuss essential understandings observable in student work. Participants will leave with frameworks for MVP problem types and student strategies observed in our research.

Integrating Restorative Justice in CGI Practice

Location: Nautilus C

Shante Stuart McQueen, Portland State University
sks7@pdx.edu

This session lifts up the stories and engages participants in strategies developed by 5 first-year teachers (trained in CGI) through a research-practice-partnership with the presenter to integrate Restorative Justice into their mathematics instruction in the effort to craft an anti-racist math teaching practice that centers healing, joy and relationships.

Raising the Voices of Second Language Learners in the Primary CGI Classroom

Location: Harbor A

Pamela Holguin-Brown, UCLAMP/LAUSD
pamela.holguin3@gmail.com

Kimberly Lewis, UCLAMP/LAUSD
kimbrz87@yahoo.com

CGI creates a space for student-centered thinking in a maths classroom. How are primary students to be heard if they do not speak the primary language of instruction? Participants will engage in a session that focuses on raising the voices of Second Language Learners in a primary maths classroom. Activities to enhance the voices of young mathematicians will be offered to participants to promote language, oral and written, in a CGI classroom. Participants will be given examples of activities, including what to ask students, to increase the language of primary students to make student thinking aware to all!

Question With a Purpose: Changing the Story with Focused Inquiry

Location: Harbor B

Tara Sanders, Arch Ford Educational Service Cooperative
tara.sanders@archford.org

Wendy Green, Crowley's Ridge Education Service Cooperative
wgreenwith2@gmail.com

Thoma Thacker, Little Rock School District and University of Arkansas at Little Rock
thoma.thacker@lrsd.org

In CGI, one of the most important skills we can hone is our ability to question. But using these good questions with purpose is vital. In this session, we will work on being purposeful with our questioning while keeping our learning goal and the needs of our students in mind.

FRIDAY, JULY 1, 2022, 8:30 A.M. – 9:45 A.M

Culture and identity in the Math Classroom

Location: Harbor C

Janaki Nagarajan, Kent School District
janaki.aleena.nagarajan@gmail.com

Jenna Laib, Public Schools of Brookline (MA)
jennifer_laib@psbma.org

While some think of mathematics as a "pure" discipline, culture and identity influence how we learn and use math. Let's explore how educators can leverage students' experiences through task selection and enactment. Participants will examine student work for evidence of sensemaking about mathematics as well as culture and identity.

Location	Title	Presenter
Majestic 6	Can CGI promote equitable teaching practices?	Walter Secada/Maria Kolovou/Changzhao Wang/Hua Ran
Royal 1	Using CGI Videos to Collaboratively Reflect on Practice	Crystal Kalinec-Craig/Jaime Diamond/Jeff Shih
Royal 2	Empowering Young Children to Write Story Problems	Kelly Peters/Jane Parkes
Royal 3	Building on Children's Mathematical Thinking	Karen Suleyda Recinos Alvarado
Diamond 1	Do No Harm	Margie Pligge/Nancy Mueller
Diamond 2	Building Oral Language Skills with CGI Strategies	Courtney Johnson
Silver	Ready to Present at Your School? It All Begins with THE Book!	Sonia Larrabee
Nautilus A	No session occurring in this room at this time.	
Nautilus B	Integrating Technology to Center Student Thinking	Farshid Safi/Siddhi Desai
Nautilus C	Rehumanizing Assessment by Sitting Beside Students	Nicole Rigelman/Mary Duden
Harbor A	Formative Conversation Starters: A tool for listening	Ted Coe/Tammy Baumann
Harbor B	Open Number Line: Transforming Discourse & Reasoning	Ashley Serrin/Lindsay Aldo
Harbor C	Numerical Perspective of Exceptional Minds	Ashley Bidwell

Can CGI promote equitable teaching practices?

Location: Majestic 6

Walter Secada, University of Miami
wsecada@miami.edu

Maria Kolovou, University of Miami
mxk1058@miami.edu

Changzhao Wang, University of Miami
cxw662@miami.edu

Hua Ran, University of Miami
hxr240@miami.edu

We present our ongoing video-data analyses from an original CGI randomized control trial conducted in 2012-13. Results include the reduction of CGI teacher gender-bias when calling on students; the effects of CGI on teaching practices that develop student agency; and the effects of CGI teacher responses to student struggles when solving problems

Using CGI Videos to Collaboratively Reflect on Practice

Location: Royal 1

Crystal Kalinec-Craig, The University of Texas at San Antonio
Crystal.Kalinec-Craig@utsa.edu

Jaime Diamond, University of Georgia
diamond@uga.edu

Jeff Shih, University of Nevada, Las Vegas
jshih@unlv.nevada.edu

Participants will share their favorite and most frequently used CGI video clips in the form of a playlist metaphor. Participants will analyze and discuss their playlist across several dimensions (e.g., mathematical understanding, children's strategies, why they selected the clip, how they use the clip in their practice).

Empowering Young Children to Write Story Problems

Location: Royal 2

Kelly Peters, UCLA Lab School
kpeters@labschool.ucla.edu

Jane Parkes, UCLA Lab School
jparkes@labschool.ucla.edu

Math makes sense when it is contextual, tied to everyday experiences. Even the youngest children add, multiply, divide, and subtract at the park, at the grocery store, or sharing breakfast with their siblings. In this workshop we will explore how to scaffold students to create their own story problems based on their lives. Starting with photographs and child-made drawings, children can write and solve their own math problems.

Building on Children's Mathematical Thinking

Location: Royal 3

Karen Suleyda Recinos Alvarado, UCLA

Children naturally solve multiplication and division stories from an early age. They become excited to do math, explain their ideas, and engage with the ideas of others. All children, especially our emergent bilingual students, benefit from consistent, meaningful opportunities to problem solve and from spaces where their thinking is valued.

Do No Harm

Location: Diamond 1

Margie Pligge, University of IL at Chicago
mpligge@uic.edu

Nancy Mueller, IL River Forest School District 90
muellern@district90.org

Do we teach fraction understanding out of children? Do you ever feel that older students are less successful than younger students in solving problems? We will share one district's journey promoting CGI as way to provide students with more opportunities, access, sense making, and success using fraction operations. Participants will analyze student work and student voice that captures the journey towards developing flexible thinking.

Building Oral Language Skills with CGI Strategies

Location: Diamond 2

Courtney Johnson, Saint Johns County School District
courtney.johnson@stjohns.k12.fl.us

How can we use math as a tool to improve the social and emotional growth of our students and increase their expressive and receptive language skills? Let's talk about how incorporating CGI, using story problems and supporting intentional classroom math discussions can build a positive classroom culture while improving our students' oral language skills.

Ready to Present at Your School? It All Begins with THE Book!

Location: Silver

Sonia Larrabee, Woodward Ave. Elementary - Volusia County Schools, Florida
slarrabe@volusia.k12.fl.us

Ready to bring CGI to your school? It's an approach to thinking about mathematics that will change how your teachers will think about mathematics instruction and student work.

How can you get started with CGI implementation at your school? Easy! Just begin with the blue Children's Mathematics book! The contents lend themselves to an easy 'read' and 'study' for a small group and/or schoolwide, hands-on Book Study. Your teachers don't have to be 'all in' at first! Let the reading and collegial conversation take them there. A book study approach will be shared.

Integrating Technology to Center Student Thinking

Location: Nautilus B

Farshid Safi, University of Central Florida
farshid.safi@ucf.edu

Siddhi Desai, University of Central Florida
siddhi.desai@knights.ucf.edu

Participants will engage in student-centered elementary content focused tasks that focus on collaborations and constructing mathematical knowledge through students formal and informal learning experiences. Presenters will share ways that technology such as dynamic geometry, virtual manipulatives, and shared slide decks were combined with non-permanent vertical spaces to engage students and promote sense making. The primary focus will be on discussing how purposefully selected tasks can provide for equitable and accessible learning spaces that foster and promote a sense of belonging for all students within our mathematics classrooms.

Rehumanizing Assessment by Sitting Beside Students

Location: Nautilus C

Nicole Rigelman, Portland State University & The Math Learning Center
rigelman@pdx.edu

Mary Duden, Oregon Episcopal School
dudenmary@gmail.com

This session focuses on rehumanizing assessment by developing a habit of "sitting beside" students to learn what they understand rather than just confirming that they understand. We will examine an assets-focused tool that supports teacher noticing and systematically using students' mathematical thinking to understand trends and inform next instructional steps.

Formative Conversation Starters: A tool for listening

Location: Harbor A

Ted Coe, NWEA
ted.coe@nwea.org

Tammy Baumann, NWEA
tammy.baumann@nwea.org

In this session we will share our new, freely available Formative Conversation Starters. Made up of carefully sequenced question clusters, they promote listening for student thinking around clearly delineated, grade-transcending big ideas. The downloadable collection covers Grades 2-8 and includes student videos.

Open Number Line: Transforming Discourse & Reasoning

Location: Harbor B

Ashley Serrin, Chula Vista Elementary School District - Rice Elementary
ashley.serrin@cvesd.org

Lindsay Aldo, Chula Vista Elementary School District - Rice Elementary
lindsay.aldo@cvesd.org

Open number line routines are student-centered, student-driven, and accessible to all students, no matter the level! Come hear stories and see examples of how open number line routines in elementary classrooms engage students in reasoning and discourse, deepen their number sense, and illuminate their thinking through questioning.

Numerical Perspective of Exceptional Minds

Location: Harbor C

Ashley Bidwell, Bay District Schools/Bay County Home School Community
ashleypayton1987@gmail.com

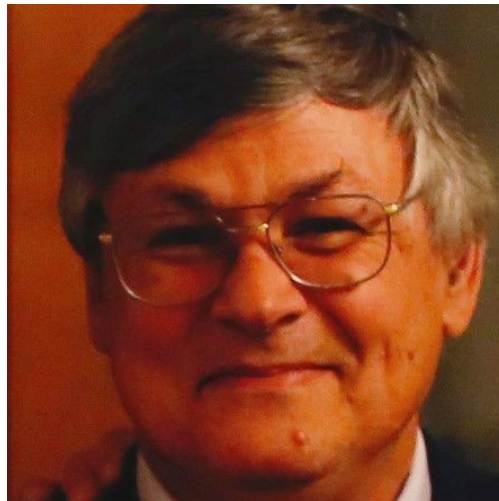
We understand that numbers are a universal language, however when it comes to how the mind views and applies numbers to represent a numerical value we often witness a variety of problem solving strategies. My career has been based on instructing children with autism, a few classified intellectually disabled, some diagnosed with dyslexia, and I've even gotten my feet wet working with across the spectrum to students deemed gifted with high IQ's and "higher" levels of functioning. My findings while working with students with exceptional minds has been mind blowing and slightly disheartening as I recognized many brilliant problem solving brains that had been dismissed, overlooked, or misunderstood due to not solving problems in a "cookie cutter fashion" modeled by a teacher or educational service provider.

Location: Majestic 4 and 5

Looking Back at 30 Years of CGI and 90 Years of Children’s Thinking and Looking Forward

Walter Secada

We will look back on the research of how students learn mathematics and the research that tries to answer the question: “I wonder what teachers would do with this information?” A vision for the future will be shared.



Speaker Bio: Walter G. Secada is the Associate/Vice Dean of the School of Education and Human Development and former Chair of Department of Teaching and Learning and at the University of Miami.

His scholarly interests include student diversity and equity in education, how people learn across various fields, curriculum reform, school restructuring, and bilingualism and the education of non-dominant-language learners.

His research around CGI analyzes video data contrasting CGI and traditional classrooms in terms of mathematics-curriculum enactment and teaching practices. In his non-CGI research, he continues to study how the language features of mathematics may provide challenges and affordances to late-elementary and middle-school students who are learning mathematics and who range from English learners to fully proficient in English.

