

00:13:43 Sara Van Der Werf: Thanks Annie! No snow or ice in MN - but I  
am not complaining about balmy 40-50 degrees this week.

00:13:45 Ralph Pantozzi: Millington NJ

00:13:46 Owen Bissell: Los Angeles, CA

00:13:48 James Short: Ojai, CA

00:13:51 Octavia Brauner: Hello from Arlington, MA!

00:13:51 Daniel Irving: Hello from North Providence, RI!

00:13:55 Jennifer Lagrange: Atlanta, GA

00:14:02 Melina Dyer: Vancouver, WA

00:14:02 Renee Schley: Minneapolis, MN

00:14:03 Kayla Edwards: Longview, Washington!

00:14:04 Molly Daley: Vancouver, WA

00:14:04 Nicole Rigelman: Hello from Portland, OR

00:14:07 Rebecca Rud: NW Minnesota

00:14:07 Cara Hetrick: San Diego

00:14:07 Donna Wright: Frankenmuth, MI

00:14:08 Paula OSullivan: Hello from Somerville MA!

00:14:09 Kim Blaise: Westchester, NY

00:14:09 Beth Flanigan: Cincinnati, Ohio

00:14:09 Christina Lincoln-Moore: Christina Lincoln-Moore, Los  
Angeles, CA

00:14:12 Mindy Johnson: Gorham, NH

00:14:14 Robert Mann: Hi all. Macomb, IL here.

00:14:15 Eleanor Pusey: North Myrtle Beach, SC

00:14:17 Shelly Jones: Greetings Shelly Jones from CT

00:14:18 Brian Streight: Oxford, OH

00:14:18 Julie Bormett: Verona, WI

00:14:18 Noam Szoke: San Francisco

00:14:25 Diana Hughes: Los Angeles, CA

00:14:31 Sherri Jones: Austin TX

00:14:38 Mary Mooney: Milwaukee, WI

00:14:39 Sharon Soule: Coleville Ca

00:14:41 Mark Nechanicky: Albert Lea, Minnesota

00:14:44 Tara Fulton: Phoenix, AZ a nice 78 degrees today ;)

00:14:52 Koren Obenshain: Albuquerque NM

00:14:53 Else Goll: Hopkins, MN

00:14:54 Lisa Kew: Sydney, Australia

00:15:00 Kimberly Yoak: On the ancestral homelands of the Erie and Seneca  
peoples, here in northeast Ohio

00:15:06 Lorie Huff: Fayetteville, Arkansas

00:15:12 Chonda Long: [www.nctm.org/policies](http://www.nctm.org/policies)

00:15:17 Becky Unker: Becky Unker from Utah

00:15:20 Sara Van Der Werf: Yo Molly!

00:15:27 Ted Coe: Ted Coe - hanging out in Michigan today

00:15:31 Yvonne Slanger-Grant: East Lansing, Michigan

00:15:42 Monique Cabellon: Hi Rachel! So good to see you again!

00:15:42 Stacie Kaichi-Imamura: Honolulu, HI

00:15:46 Rachel Lambert:

[https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu\\_wdKQ43se84IhMrulSU/edit?usp=drive\\_link](https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu_wdKQ43se84IhMrulSU/edit?usp=drive_link)

00:15:47 Molly Daley: Sara!!

00:15:48 Erica Heinzman: Hi Erica from San Diego

00:15:55 Ron Noval: Mesa, Arizona! ☺

00:16:06 Amy Shah: Hi Amy from just outside of Philly.

00:16:15 Jane Juten: Jane From Duluth, MN

00:16:17 Jayme Lorenz:

[https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu\\_wdKQ43se84IhMrulSU/edit?usp=drive\\_link](https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu_wdKQ43se84IhMrulSU/edit?usp=drive_link)

00:16:19 Katherine Richardson: Westminster West, Vermont

00:16:20 Patricia Busta: St. Paul, Minnesota

00:16:30 Tammi Perez-Rice: Houston, Texas

00:16:35 Amy Shah: Hi Amy from just outside Philly.

00:16:49 Melissa Conway: Boston, MA

00:17:05 Annie Fetter: @Amy, we're neighbors! I'm in Delco.

00:17:08 Nicola Vitale: Yay!

00:17:09 Kimberly Yoak: Hooray!! Congratulations!!

00:17:09 Tara Fulton: When will the recording be available?

00:17:17 Deepa Bharath: That's amazing! Congratulations Rachel!

00:17:17 Molly Daley: Woohoo!

00:17:27 Kristen Hayden: Kristen from Franklin Twp. New Jersey

00:17:31 Shelly Jones: Woo Hoo! Congratulations!

00:17:31 Jayme Lorenz: It will be posted online tomorrow

00:17:46 Becky Unker: YAY!!! I'm so excited for your book!

Congratulations!

00:17:47 Amy Shah: Hi @Annie!

00:17:59 Yi Law Chan: Congrats on the book! Can't wait!

00:18:24 Anne Marie Nicoll-Turner: So excited to be here. Can't wait for the book.

00:18:46 Joleigh Honey: Agreed! Super excited for this discussion... and the BOOK!

00:21:00 Anastasia Betts: Q1 for me— teaching for understanding

00:21:03 Diana Hughes: 1. I want people to be able to reason about the world and their problems, using math.

00:21:09 Kate Smallberg: 1. joy, 2. the lack of joy

00:21:10 Dawn Dibley: Q1: That all students understand the math they are asked to do.

00:21:10 Amy Smith: Q1: Students feeling competent. Developing student understanding of math concepts.

00:21:10 Margaret Williams: Q1 All students make sense of the math and are challenged

00:21:10 Tammy Lackey: Q1: Meaningful learning happens

00:21:12 Joshua McKnight: Q1: For all students to have access to high quality instruction.

00:21:15 Susan May: 1. Creating critical thinkers

00:21:15 Denise Porter: 1. High Quality Instruction for all students

00:21:16 Lisa Rogers: Q1 - developing mathematical thinkers

00:21:20 Koren Obenshain: Q1 Kids understanding and being able to talk about math and relationships within math

00:21:20 Diann Christensen: Q1 Students becoming problem-solvers and sense-makers

00:21:21 M Romanelli: Q1: I want to help students the language of mathematics. I want them to be able to use it as a meaningful tool.

00:21:22 Sharon Soule: 1. Student understanding and motivation to continue studying math

00:21:23 L Hatch: Q1 developing mathematically functioning adults

00:21:23 Emily Stewart: Q1-not labeling kids as low, high. It's destructive to kids and our present and future society.

00:21:24 Lisa Tibbetts: Q1: People who can problem solve and reason

00:21:24 Cara Hetrick: Q1: I want students to be problem solvers who view themselves as individuals who have something to contribute to the problem solving process.

00:21:25 Erin Mercer: Q1: Teaching for understanding & at the national level, common standards is helpful to share resources.

00:21:25 Kimberly Yoak: Q1 - Helping everyone to feel included in mathematics and to feel capable of engaging with mathematics in many ways (any way they choose)

00:21:25 Molly Daley: Q1: Dispositions and helping students (and teachers) find their own connections to math

00:21:26 Jamie Veraldi: 1.) What matters most to me is having kids who feel supported and confident in learning math, even though it may be challenging for them, I want them to feel like they can be successful.

00:21:27 Danielle Troullier: What matters Is long-term student success,,,coherence

00:21:28 Brenda Geier: Q1: ALL students should be working on authentic, real world math problems; equity in mathematics

00:21:28 Vicki Vierra: 1. It matters that students understand, engage in and enjoy math

00:21:28 Rebecca Hill: 1. Students ENJOY using math to solve problems

00:21:29 Emily Hixon: Q1: Understanding the value of math as a meaningful development of critical thinking

00:21:29 Jocelyn Robbins: 1. That every student is taught to high levels of math and everyone believes all students can learn

00:21:31 Kevin Moore: Learners should be challenged to think mathematically.

00:21:32 Suzanne Huerta: 1. Mathematical thinking

00:21:33 Karen Gayle: Q1 that teachers have the content knowledge and the pedagogy skills to teach it.

00:21:34 Annie Fetter: A1: One thing that matters is that people think math sucks, and that makes me sad...(I guess that's also an answer to Q2!).

00:21:34 Noam Szoke: I am concerned about equitable outcomes for our students.

00:21:35 Dawn Plestina: Q1 Helping my students become independent learners of math concepts

00:21:37 Darin Gundy: 1. critical thinking skills

00:21:39 Owen Bissell: 1. Conceptual understanding and reasoning ability. Creating joy around mathematics and problem solving!

00:21:40 Lorie Huff: Q1 - Helping students have a deep understanding of the mathematics content. Develop thinkers of mathematics.

00:21:41 Sara Kirschner: 1- Understanding and application, equity  
2- resistance to change

00:21:42 Erin Mercer: Q2 : Students with learning gap, meeting their needs

00:21:42 Miles Cowles: 1. I want students to have a mindset for solving problems. 2. Students struggle to struggle.

00:21:42 Kristen Hayden: 1. having students learn conceptually so procedural fluency can be developed

00:21:46 Virginia Kuryla: Q1: I want students to have number sense, to be flexible with their thinking

00:21:47 Else Goll: 1: making meaning of their learning and transferring to new contexts

00:21:48 Margaret Williams: Q2 one size fits all

00:21:49 Tara Fulton: Q1 - practitioners being critical consumers of all programs to ensure alignment to Math Ed research

00:21:49 Marcus Helmer: Q1 - Students see math as a topic that makes sense (and is very weird)

00:21:50 Lisa Hillstrom: Letting students to the thinking and talking about math.

00:21:50 Grace Kelemanik: 1. Mathematical practices.

00:21:51 Emily Stewart: Q2-people without math education backgrounds or teaching backgrounds who have so much power in the decision making

00:21:51 Kim Blaise: Q1: Students see connections

00:21:51 Mary Ellis: Q1. I want students to make sense of mathematics

00:21:51 Dawn Dibley: Q2: Adults who don't understand the math they are teaching.

00:21:52 Dianna Crescitelli: Q1: It matters that folks connect math to themselves and their lives as they make sense of it.

00:21:54 Karen Gayle: Q2 unable to find qualified math teachers.

00:21:54 Anne Marie Nicoll-Turner: Q1 Success for all students in mathematics, regardless of special designations or zip codes where they live. Good self-image in math, students should see themselves as creators of math.

00:21:57 Danielle Troullier: One problem we face is teacher preparation and ongoing content study

00:21:59 Rohith Adusumilli: 1). All my students to participate in the classroom. My goals is to keep growing from feedback I get in teaching. How students self direct learning matters.

2). Problems we face- lack of instructional time to plan many engaging activities in our lessons. Lack of supplies.

00:21:59 Donna Wright: 1. That students are equipped with the tools of mathematics to solve problems in real life - work smarter, not harder.

00:21:59 Patricia Busta: 1. Students being given the opportunities to make sense of the math.

00:22:00 Lisa Sobol-Boyle: Helping students love learning math and grow in math understanding

00:22:00 Brenda Geier: Q2: teacher's belief systems are challenges

00:22:02 Shelly Jones: Q1 It matters that students understand the math we are working on. They understand HOW to use the math in their real life. They are able to use math to explore and explain things that matter to them. For starts.

00:22:03 Joshua McKnight: Q2: Insufficient training and preparation of the teachers responsible for student in need of the most specialized instruction.

00:22:04 Octavia Brauner: Q1: students are doing math, thinking

mathematically, and discussing math.

00:22:05 Paula Clark: Q1 engage students in the mathematical practices

00:22:05 Amy Smith: Q2: Teachers lacking deep content knowledge to understand how best to support student learning trajectories.

00:22:06 Elise van der Jagt: Q1: Equity and access through high quality maths education Q2. False dichotomous thinking about maths pedagogy.

00:22:06 Kimberly Yoak: Q2 - Many people are extremely focused on one way of defining and measuring "mathematics learning", perhaps to the detriment of deep learning for all.

00:22:07 Jocelyn Robbins: 2. Poor instruction- also achievement gaps are not necessarily achievement, but gaps in instruction and gaps in expectations

00:22:07 Tanisha Horton: Q1: Creating a joy and wonder for mathematics, that students see themselves as capable does of mathematics and that the subject is useful and relevant

00:22:07 Rebecca Hill: 2. engagement

00:22:09 Mary Mooney: It matters to me that children feel empowered to persevere in problem solving especially when mathematical thinking is needed or helpful.

00:22:09 Sharon Soule: 2. The culture of standardized testing and the belief that testing will somehow automatically improve math education.

00:22:09 Dora Trujillo: A1: Making math relatable.

00:22:13 Else Goll: 2. Personalizing learning for all learners in heterogeneous classrooms

00:22:14 Kim Lee: Q2: teachers don't feel confident teaching math

00:22:14 Vicki Vierra: 2. Problem: teachers & communities with a narrow vision of math

00:22:14 Dawn Plestina: Q2 Kids thinking that math is akin to being a calculator

00:22:14 Jamie Veraldi: 2.) Problems currently for me, addressing gaps in learning created by covid shut down when your state hasn't adjusted it's expectations of student outcomes.

00:22:15 Molly Daley: Q2: We don't share common goals. We have a system built to promote answer-getting, not thinking and some folks are happy about that.

00:22:15 Pamela Williams: 1. Students are able to APPLY math skills in new and challenging ways.

00:22:16 Marcus Helmer: Q2 - Culture around math. Parents and other faculty and their attitudes towards math

00:22:17 Jane Juten: I want all students to feel equally engaged in problem solving activities in my classroom. I want a level playing field.

00:22:17 Jana Rupp: Students have confidence to tackle rich problems. They are doing the majority of the thinking.

00:22:18 Octavia Brauner: Q2: Lack of rigor.

00:22:19 Dawn Barson: Q2 training preservice teachers to help aid in the pedagogical shift

00:22:19 Cara Hetrick: Q2: A tension between learning the procedures for math and finding answers and valuing mathematical thinking and process.

00:22:20 Tanisha Horton: 2. Conflicting beliefs around the purpose of mathematics

00:22:21 Emily Stewart: Q2-Teacher education programs need to grow and change.

00:22:22 Lisa Tibbetts: 2. Non-thinkers; Mimickers

00:22:23 Emily Hixon: Q2: People feeling like math is isolated as applicable only to math or contrived real world applications except in engineering careers

00:22:23 Jocelyn Robbins: 2. We have a Tier 1 instruction problem

00:22:24 Norma Borenstein Gordon: Q1 - students feeling they belong in the math class

00:22:24 Darin Gundy: 2. Too much influence from people who have never been a teacher

00:22:26 Jennifer Lagrange: 1. Kids wanting to learn about math - not thinking they need to stop b/c they can't do it.

00:22:28 L Hatch: Q2 Too many ways to learn concepts that are developmentally above the way children can learn.

00:22:30 Wendy Larmour: Poor math ability leads to flawed decision making.

00:22:30 Anne Marie Nicoll-Turner: Q2 arguments about how to teach it, how kids learn, and timed tests. Not enough teachers

00:22:33 Yi Law Chan: Q2: State and National Exams do not accurately measure the Mathematical Practices and therefore focus on discrete skills

00:22:33 Deepa Bharath: Q2 Many adults do not see themselves as math thinkers and doer. So... Q1 goal is to have all adults see themselves as mathematical .. and math as human experience

00:22:45 Lisa Hillstrom: One problem I see is teachers consistently underestimating their students' ability to do math

00:22:45 Patricia Ishihara: Q2: Insufficient understanding by state/legislative leaders as to what good instruction and professional development looks like

00:22:50 Mary Mooney: My goal is to increase the number of stories in which students describe math class with great memories.

00:22:51 Kathy Pilger: How do we encourage more young people to become math teachers?

00:22:51 Ryan Pellow: Solving problems

00:22:52 Matt Santos: Are the resources linked here?

00:22:53 Lorie Huff: Q2 - Many people want to go back to one process for getting answers - step by step guidance. Getting students to get answer but not make sense of the mathematics.

00:22:53 Virginia Kuryla: Q2: Lack of qualified staff, overworked teachers, covid gaps that have exacerbated learning gaps for students who were already "struggling"

00:22:59 Taylor Simon: Q1: to have as many students thinking about math as possible and for all students to think of themselves as doers of mathematics

00:23:09 Koren Obenshain: Q2 Lack of support for teachers to teach in a way that supports the type of understanding the Q1 wants

00:23:15 Patricia Busta: Q2 Professional learning for all teachers- especially elementary teachers around mathematical learning progressions.

00:23:36 Ken Krehbiel: Hi Joleigh

00:24:07 Owen Bissell: 2. Gaps that start early and create ongoing gaps as students progress through school. Low mathematical confidence for many teachers and parents - and lack of appropriate support for them. Students relying on algorithmic methods rather than understanding.

00:24:20 Jayme Lorenz:

[https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu\\_wdKQ43se84IhMrulSU/edit?usp=drive\\_link](https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu_wdKQ43se84IhMrulSU/edit?usp=drive_link)

00:24:28 Patricia Ishihara: Q2: Mathematics needs a marketing campaign so that we can begin to change mindsets around mathematics, and put on the same level of support as English literacy

00:24:35 Jayme Lorenz:  
[https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu\\_wdKQ43se84IhMrulSU/edit?usp=drive\\_link](https://docs.google.com/document/d/1woMk-JcH2zConLQpfnjDGDqu_wdKQ43se84IhMrulSU/edit?usp=drive_link)

00:26:52 Danielle Troullier: and this is how some curriculum is framed and it feels troubling

00:27:36 Kimberly Yoak: ♥

00:28:09 Kim Lee: YES

00:28:10 Nicole Rigelman: I appreciate you saying that out loud re: research humility.

00:28:13 Sara Van Der Werf: Yes! Preach Rachel

00:28:14 Karen Gayle: love the graphic

00:28:16 Patricia Ishihara: Oh yes!...

00:28:22 Matt Santos: Yes - this is nonstop! Ex. Science of Math Folks

00:28:27 Kevin Moore: Indeed

00:29:07 Sharon Soule: I do love the graphic!

00:29:13 Shelly Jones: Yes, the gloves are great!

00:29:18 AnnElise Record: Love it!

00:29:25 Brynda Aker: the graphic is right on!

00:30:11 Joleigh Honey: Yes, graphic is spot on... and yet I wish they were more "intertwined"... like that we could all see the importance of when and where for BOTH, not mutually exclusive.

00:30:14 Shaun Kaanoi: How did you land on these exact definitions?

00:31:56 Margaret Williams: ][

00:32:05 Margaret Williams: \

00:32:11 Kevin Moore: Inquiry is not without moments of explicit instruction.

00:32:43 Emily Stewart: I'm guessing this is true for reading research too (that is has limitations and no definite "truths"), but let's let people fight about reading...

00:33:34 Jocelyn Robbins: YES!!!

00:33:49 Brynda Aker: I wonder about the same things you do!

00:34:04 Norma Borenstein Gordon: Yoga and dead bug! Has so many variations and accommodations! Doesn't have to be one way! Everyone is different!

00:34:14 Annie Fetter: That picture suggests that I do Dead Bug wrong!

00:34:24 Kimberly Yoak: Yes!!!!

00:34:29 Kimberly Yoak: RIGht!!!!

00:34:41 Amy Lucenta: Yes Norma!

00:34:44 Marcus Helmer: Depends on your health goals. :)

00:34:45 Norma Borenstein Gordon: And can work feel differently on any given day!

00:35:02 Norma Borenstein Gordon: Hi Amy!

00:35:12 Sara Van Der Werf: Talking about 'dead bug' exercises was not on my January 2024 bingo card. lol

00:35:34 Dianna Crescitelli: 😊

00:35:40 Norma Borenstein Gordon: LOL Sara!

00:36:02 Dawn Dibley: Sara - I want to see your card on Saturday.

00:36:15 Mark Nechanicky: Agree Dawn.

00:36:20 Patricia Wallace: Me too!

00:36:49 Sara Van Der Werf: Alright Patty, Mark and Dawn (may or may not need to quick create one). Looking forward to seeing you all IRL

00:37:18 Kimberly Yoak: Although the descriptors on those strands of proficiency are edited from the original source

00:37:39 Kimberly Yoak: Edited in highly intentional ways, I would argue

00:37:56 Jayme Lorenz:  
[https://docs.google.com/document/d/1woMk-JcH2zConLQpfjDGDqu\\_wdKQ43se84IhMrulSU/edit?usp=drive\\_link](https://docs.google.com/document/d/1woMk-JcH2zConLQpfjDGDqu_wdKQ43se84IhMrulSU/edit?usp=drive_link)

00:37:58 Jennifer Hunt: Notice and Wonder TM.

00:38:31 Dawn Dibley: Annie F. Should get a 5 cents every time someone says "Notice and Wonder."

00:38:37 Norma Borenstein Gordon: Sarah - here's a quick way to make one: <https://myfreebingocards.com/bingo-card-generator/edit/yc8jn>

00:38:39 Joshua McKnight: I noticed the "misconception" is stated in an extreme (strawman) that I have never heard from any research and that their "truth" seems much more middle of the road in what seems to be a false dichotomy.

00:38:41 Diana Hughes: "All learners"

00:38:43 Jennifer Hunt: ;)

00:38:43 Christina Lincoln-Moore: Truth: explicit instruction ...for ALL learners. WTF

00:39:07 Kimberly Yoak: I wonder how explicit instruction might facilitate creativity... ????

00:39:09 Dawn Barson: Very bold claims. Wonder what data they have to back this.

00:39:17 Nadia Walker: I wonder how 'explicit instruction' facilitates creativity? Do they claim that inquiry based instruction doesn't?

00:39:17 Emily Stewart: Why do we even label some students as "struggling?" Where did that come from? Just because you aren't lock step with peers, you are struggling? Did the kids who didn't walk as fast as peers get called "struggling walkers?"

00:39:18 Danielle Troullier: Who are these students and what is the context they are referring to

00:39:23 Megan McBride: I'm wondering where student creativity happens during explicit instruction.

00:39:26 Jody Vanderloo: The words "all learners" makes me very skeptical...

00:39:33 Rebecca Hill: Wonder how sequencing of tasks can lead to creativity?

00:39:34 Leah Plack: Raise your hand if you've seen these statements not be true 😞😞

00:39:36 Patricia Busta: Effective for all learners- nothing is one size fits all

00:39:52 Diana Hughes: Wondering: where'd the list of misconceptions come from?

00:39:53 Rebecca Hill: I wonder HOW IS FLUENCY DEFINED

00:40:01 Dianna Crescitelli: Where's the "research" for these statements? What KINDS of feelings are increasing?!?!

00:40:12 Margaret Williams: No words!



00:40:13 Norma Borenstein Gordon: This isn't a balanced page - it's 100% explicit instruction leaning

00:40:14 Matt Santos: YES! Make this a series

00:40:21 Nicola Vitale: There are some implicit messages too - that inquiry does not have sequencing of tasks in increment of difficulty

00:40:21 Paula Clark: In inquiry learning, students are not expected to "discover" on their own

00:40:21 Nadia Walker: Yes ... I'm here for your rebuttal Rachel!

00:40:30 Annie Fetter: I notice a lot of claims, but the research is hidden behind a footnote thing.

00:40:30 Jana Rupp: I wonder if students end up mimicking the teacher's strategies. Are multiple methods celebrated? Are the students thinking critically?

00:40:30 Virginia Kuryla: I wonder how explicit instruction facilitates creativity.

00:40:39 Sharon Soule: I just notice that it makes me mad.

00:40:43 Jennifer Lagrange: How could it be a misconception that students learn better when they are curious and interested? Is engagement or motivation not helpful?

00:41:03 Mike Steele: I wonder what they consider math knowledge to entail

00:41:06 Kim Lee: I was just thinking the same thing Jennifer!

00:41:09 Donna Marie Young: In explicit instruction students are provided with correct answers?

00:41:14 Corina Goodwin: why do we even think that math students in primary school (or even secondary) should be creative?

00:41:20 Molly Daley: Those are all pretty young citations

00:41:24 Paula Clark: I wonder what type of "feelings" inquiry-based approaches increase

00:41:24 Kevin Moore: Inquiry instruction is not with moments of explicit instruction.

00:41:26 Helen Ritchey: Yes! Please do a webinar that will unpack the research that supports those misconceptions.

00:41:28 Joshua McKnight: Some of their citations actually refute or fail to support their claims

00:41:31 Danielle Troullier: increase math achievement based on what measure?

00:41:33 Norma Borenstein Gordon: I wonder what they consider "common" and what data backs that up

00:41:37 Florence Chan: I wonder how student achievement is measured in these studies. Are students assessed on conceptual understanding?

00:41:43 Kelsey Bartlett: I had the same questions so I went to the citations and I read the data MUCH differently than what is stated on the website. I really appreciate this group- very validating that I'm not the only one

00:41:46 Mark Nechanicky: I am hearing that the connections between the claims and research is not explicit. Ironic.

00:41:52 Danielle Troullier: same, Florence

00:42:01 Rohith Adusumilli: So does the explicit instruction model means we are not teaching at all? Students are self-directing their learning is that true?

00:42:07 Loren Kaplan: If we find citations like these, how do we go and find the study? I've had trouble doing this in the past.

00:42:44 Mike Steele: @Loren Google Scholar is a great resource

00:42:48 Rohith Adusumilli: Will this model progressively challenge students more?

00:42:57 Rohith Adusumilli: the explicit instruction model?

00:43:01 Annie Fetter: You can't make this shit up.

00:43:14 Kimberly Yoak: LOL ^^ Annie!

00:43:17 Sara Van Der Werf: Annie - they DID make this shit up

00:43:20 Norma Borenstein Gordon: But in fact Annie it seems they are making it up!

00:43:21 Kim Lee: Haha

00:43:24 Dawn Dibley: Loren - check what resources your local library might have. I have been able to find (and have sent to me) several research studies.

00:43:24 Patricia Ishihara: EIC

00:43:25 Dianna Crescitelli: !

00:43:25 Rebecca Hill: I KNOW

00:43:29 Kim Lee: EIC

00:43:29 Rohith Adusumilli: explicit

00:43:30 Emily Stewart: Annie....yes!!!

00:43:32 Brynda Aker: Explicit

00:43:33 Molly Daley: The one with instruction

00:43:34 Cara Hetrick: EXPLICIT!!!

00:43:34 Rebecca Hill: Of course...

00:43:35 Lorie Huff: Explicit

00:43:35 Diana Hughes: I am shocked

00:43:36 Florence Chan: If there is ZERO guidance, then of course explicit instruction

00:43:36 Marcus Helmer: No way

00:43:37 Karen Gayle: Ha is i explicit instruction

00:43:38 Rohith Adusumilli: explicit yes and yes

00:43:39 Ashlee Treadway: Explicit-bias revealed

00:43:39 Kayla Edwards: Explicit.

00:43:40 Kristina PEREZ: explicit

00:43:41 Octavia Brauner: Shocker

00:43:47 Mark Nechanicky: My students would call this a no-fun game of would you rather with false choices.

00:43:49 Shelly Jones: Surprise!

00:43:51 Dianna Crescitelli: BIAS, much?!

00:44:12 Margaret Williams: CGI

00:44:18 Kevin Moore: We have not advanced much beyond explicit instruction as the general approach to math learning. So, how was this research conducted? Well...you're explaining it now.

00:44:25 Dawn Plestina: Agree Margaret

00:44:43 Nicole Rigelman: I wish the active facilitation necessary for discovery learning was more evident to people in classrooms. They have no idea about all the actions and decisions influencing the interactions.

00:45:03 Patricia Ishihara: ED

00:45:05 Jennifer Lagrange: GI

00:45:06 Lorie Huff: Guided Inquiry

00:45:06 Marcus Helmer: ED

00:45:08 Brynda Aker: enhanced discovery

00:45:09 Jana Rupp: Discovery

00:45:11 Rebecca Hill: discover  
00:45:12 Florence Chan: Enhanced discovery  
00:45:12 Paula Clark: Enhanced Discovery  
00:45:12 Kevin Moore: Guided  
00:45:14 Virginia Kuryla: The comparison of unassisted discovery learning and explicit instruction seems like the researchers may have been looking for ways to support their pre-conceived notions.  
00:45:16 Ashlee Treadway: ED  
00:45:20 Emily Hixon: Are teachers giving support through the problem solving with the EIC? Or just teaching and then leaving students alone?  
00:45:25 Margaret Williams: Love this  
00:45:57 Leah Plack: Debunking educational either/or thinking is my love language  
00:46:02 AnnElise Record: I'm here for it all!  
00:46:51 Norma Borenstein Gordon: Student voice for the win!  
00:46:55 Kimberly Yoak: Makes sense to me!!!  
00:47:02 Ashlee Treadway: Student discourse  
00:47:03 Emily Hixon: written or verbal?  
00:47:29 Corina Goodwin: But direct instruction also tries to include many student responses, no?  
00:47:30 Emily Stewart: So the y predicted that the more teacher thinking and doing was going to grow student's thinking? That doesn't even make sense if you really think about it! It's no different than a swim coach or cooking teacher doing it for you then you magically can do it and understand it!  
00:47:47 Kimberly Yoak: SO similar to K-12 mathematics students in the U.S.  
: )  
00:47:58 Dawn Plestina: Oxymoron  
00:48:00 Rebecca Hill: So "telling" them what they are learning...  
00:49:46 Kimberly Yoak: But what do those tests measure? (In this study)  
00:49:57 Shamira Underwood: I have questions about the teacher ratings too.  
00:49:59 Rebecca Hill: And teachers self reporting..  
00:50:02 Florence Chan: I would want to know about the teacher surveys  
00:50:06 Norma Borenstein Gordon: Also limited to K-1 what about 2-12!  
00:50:08 Nicole Rigelman: I also wonder about the assessment they used with such young children  
00:50:16 Emily Stewart: But on the tests, were the tests just measuring level 1 knowledge stuff or regurgitation of behaviors?  
00:50:34 Anastasia Betts: What percentage of the student population are thought to have MD (whether diagnosed or not)?  
00:51:14 Joshua McKnight: @Betts Some research suggests ~15%  
00:51:16 Mark Nechanicky: I was already older than the students in the study from 1998, so it's all good.  
00:51:30 Ashlee Treadway: No consideration for sociocultural upheaval in the last 55 years  
00:51:37 Jennifer Smith: Creativity?  
00:51:40 Norma Borenstein Gordon: Explicit ONLY beneficial to...  
00:51:42 Danielle Troullier: inquiry approach is a little shaky based on research


00:51:49 Dianna Crescitelli: Not much is a direct match to the claims.  
00:51:52 Octavia Brauner: These would be great studies to give to students in a statistics class and have them determine if these were well designed studies. And what "claims" can actually be made.  
00:51:54 Rebecca Hill: "Exceptionally"..  
00:51:55 Virginia Kuryla: For the first grade teachers, did they self report on their instruction daily? I have lots of questions about this research.  
00:52:03 Diana Hughes: "Exceptionally strong" isn't really supported by that weak study result..  
00:52:31 Nicola Vitale: Specifically in math? Or is this making a general claim?  
00:52:32 Sharon Soule: Has anybody studied inquiry for struggling students?  
00:53:57 Kevin Moore: But the general mode of instruction is explicit instruction, so there would be abundant research of explicit instruction.  
00:54:05 Brynda Aker: When we talk about math achievement tests how much reading is on the same test?  
00:54:27 Brynda Aker: Meaning, can they read the word problems?  
00:54:31 Diana Hughes: @Brynda yes! Confounding variables in assessment are killer  
00:54:37 Danielle Troullier: good question Brynda!  
00:54:39 Diana Hughes: And reading is a huge one  
00:55:12 Jennifer Hunt: LOVE THIS HISTORY OF MATH ED! Thank you!  
00:55:17 Joshua McKnight: Read her full article for more ;)  
00:55:58 Danielle Troullier: Wow this is so enlightening  
00:56:00 Elise van der Jagt: Project Follow Through is also being used extensively to support DI for all learners..  
00:57:10 Mike Steele: Project Follow Through is frequently used as the basis for claims that aren't supported by the study.  
00:57:34 Dianna Crescitelli:   
00:58:13 Darin Gundy: Is the year supposed to be 2017?  
00:58:29 Sharon Soule: That's because Project Follow Through was conducted by the National Institute for Direct Instruction.  
00:58:40 Elise van der Jagt: Absolutely Mike  
00:58:40 Diana Hughes: qual  
00:58:42 Marcus Helmer: Mostly mixed methods  
00:58:44 Patricia Ishihara: quant  
00:58:47 Brynda Aker: quantitative  
00:58:49 Kimberly Yoak: Mostly quant  
00:58:49 Rebecca Hill: quant  
00:58:50 Koren Obenshain: quant  
00:58:52 Nicola Vitale: Quantitative  
00:58:54 Lisa Sobol-Boyle: quantitative  
00:58:54 Dawn Dibley: Quant  
00:58:55 Sharon Soule: quantitative  
00:58:57 Kristina PEREZ: quantitative  
00:58:57 Virginia Kuryla: qualitative  
00:59:17 Margaret Williams: Of course  
00:59:33 Annie Fetter: Gold star for the chat community!  
00:59:44 Kimberly Yoak: Yes. How do we define mathematics???  
00:59:47 Karen Gayle: wow

01:00:04 Cara Hetrick: This is fascinating  
01:00:30 Diana Hughes: A+ rainbow  
01:00:52 Danielle Troullier: Cara, it really is fascinating!  
01:01:27 Rebecca Hill: WOW. This is crazy  
01:01:31 Brynda Aker: I did my masters thesis on constructivism  
01:01:31 Shelly Jones: Wow  
01:02:15 Karen Gayle: so studies should be higher - sociopolitical - when you see what kids are in special ed.  
01:04:14 Kimberly Yoak: 🙌🙌🙌🙌🙌🙌  
01:04:17 Brynda Aker: great question!  
01:04:26 Ron Noval: 🙌🙌🙌🙌🙌🙌🙌🙌🙌  
01:04:28 Rosa Serratore: Brava!  
01:04:31 Sharon Soule: How in the world can equity be defined by test scores?  
01:04:35 Karen Gayle: self fulfilling profecies  
01:04:54 Anastasia Betts: Also many children are classified as MD who perhaps have misconceptions but not necessarily a true disability  
01:04:55 Beth Flanigan: Great question to be pondering!  
01:04:56 Ann Moore: I find the opposite. Purely anecdotal, of course.  
01:04:58 Rosa Serratore: Great wondering!!  
01:05:06 Kristen Hayden: We can get past the challenging readers by practicing what students hear in context. Do they hear equal or non equal groups. Are they building or unbuilding. Are we finding a part or parts or are we finding the whole. Even students that have accommodations of having the problem read to. Made a significant improvement, just by practicing what they hear, and then expressing what they hear or see in a number sentence. This is huge!  
01:05:09 Dawn Dibley: My theory - explicit instruction is easier to research because you can make sure you have fidelity of implementation and you can get a large sample size.  
01:05:13 Ann Moore: It just feels like students with disabilities are being short changed.  
01:05:38 Kimberly Yoak: I have been in thousands of hours of classes in K-12 in different schools with all demographics. I see very little difference between how students across achievement levels actually THINK about mathematics.  
01:05:39 Dawn Plestina: The link is meant to be humorous when you have time to enjoy it. (The point in your presentation where 1966 came up, is when I remembered this: <https://www.youtube.com/watch?v=W60aYPVueW4>  
01:05:41 Diana Hughes: @Dawn - an interesting point, sometimes research is guided by what's possible to do, study-wise  
01:06:23 Karen Gayle: that is big - if it is one on one  
01:06:39 Karen Gayle: can't believe lack of research in secondary  
01:07:10 Mark Nechanicky: @Dawn and @Diana I agree, we used to have a science fair for students precovid and we consumer product testing was overrepresented because it was the kind of experiment that students had access to materials and could actually do.  
01:07:14 Kristen Hayden: Grade level readiness!  
01:07:27 Danielle Troullier: challenging the binary! love this  
01:07:28 Darin Gundy: I have always wondered why most studies only look at elementary kids.  
01:08:14 Kevin Moore: Good point concerning the items presented on the

assessments

01:08:31 Kristen Hayden: Early numeracy  
01:08:55 Margaret Williams: Explicit for social conventions  
01:09:01 Sharon Soule: @Darin I think the perception is that you can intervene and make progress there more easily than at the high school level.  
01:09:06 Mike Steele: What truly are the conditions in our classrooms is worth carefully pondering as well.  
01:09:08 Paula OSullivan: piaget and three types of knowledge  
01:09:11 Sara Van Der Werf: I am reading a subliminal 'let's hang up the inquiry VS explicit fight' in the graphic. Let's stop fighting and ask different questions (also reminds me of the Dec NCTM President message)  
01:09:24 Danielle Troullier: Yes Sara!  
01:09:41 Margaret Williams: Yes  
01:09:45 Kristen Hayden: effective and efficient  
01:09:51 Danielle Troullier: it's a Tired argument lol  
01:09:58 Amy Lucenta: Wish I could like comments on this!!  
01:10:07 Shaun Kaanoi: Which ones kids invent and those kids don't invent....love that!  
01:10:19 Nicole Rigelman: What if we weren't hung up on US Customary algorithms? Would we see algorithms closer to what students invent?  
01:10:20 Dawn Dibley: Who's willing to keep listening if Rachel is willing to keep talking?  
01:10:36 Patricia Ishihara: Me! : D  
01:10:37 Jennifer Lagrange: Can't get enough!  
01:10:39 Nili Pearlmutter: me!!!  
01:10:40 Amber Byrd: me too  
01:10:42 Ted Coe: Me!  
01:10:42 Stacie Kaichi-Imamura: Me!!  
01:10:43 Sharon Soule: me!  
01:10:44 Danielle Troullier: me lol  
01:10:46 Dawn Plestina: Yes, I am interested.  
01:10:52 Anne Marie Nicoll-Turner: I'm in! Stay on!  
01:11:06 Dawn Plestina: Baroody!  
01:11:13 Jennifer Hunt: Love Baroody  
01:11:21 Diana Hughes: Please keep going  
01:11:23 Kevin Moore: I think so, Nicole R.  
01:11:27 Dawn Plestina: ILL-  
01:11:40 Virginia Kuryla: But... we run into trouble when we try to force inquiry strategies into an explicitly taught model. That number line for "add to subtract" is only beneficial if the student comes up with it. I see things like that turned into rote, expected strategies which lose all the thinking...  
01:11:54 Annie Fetter: Concept-Method-Procedure continuum - do kids understand what we're trying to do? What methods do THEY develop to do that thing? Can we "make" some efficient procedures out of any of those methods?  
01:12:01 Emily Stewart: Virginia yes!  
01:12:10 Kristen Hayden: scaffolded discourse based on student understanding  
01:12:19 Sharon Soule: I love this continuum!  
01:12:28 Mark Nechanicky: If this is ending when is part 2?  
01:12:32 Tammi Perez-Rice: Thank you!  
01:12:33 Kevin Moore: It's both. It's always both in guided inquiry

learning.

01:12:36 Kayla Edwards: Thank you, Dr. Lambert!  
01:12:38 Brigid O'Donnell: AMAZING! Thank you!  
01:12:38 Lindsay Franklin: Thank you!  
01:12:39 Jolene Hudson: Thank you!  
01:12:40 Diana Hughes: Not sorry!  
01:12:40 Marcus Helmer: Thank you!  
01:12:41 M Romanelli: Thank you!  
01:12:42 Miles Cowles: Thank you  
01:12:43 Rebecca Hill: Thank you so much! This was amazing  
01:12:44 Shaun Kaanoi: Mahalo nui!  
01:12:44 Emily Stewart: Please start a podcast!  
01:12:45 Mike Steele: Guilty  
01:12:46 Leah Plack: This was excellent!  
01:12:46 Sherri Jones: thank you!  
01:12:47 Koren Obenshain: Thank you!  
01:12:47 Dawn Dibley: Thank you!  
01:12:47 Jamie Veraldi: Thank you! Very informative  
01:12:47 Becky Unker: Thank You!!!!  
01:12:47 Stacie Kaichi-Imamura: Thank you!  
01:12:48 Danielle Troullier: This was excellent thank you!!!!  
01:12:48 Kim Blaise: Thanks!  
01:12:49 Monique Cabellon: Thank you Rachel! This is good stuff. As  
always.  
01:12:50 Nili Pearlmutter: Thank you - this was so helpful!!  
01:12:51 Nicola Vitale: Thank You!  
01:12:51 Anne Marie Nicoll-Turner: Thank you!  
01:12:51 Lisa Tibbetts: I love the continuum.  
01:12:51 Jana Rupp: Thank you!  
01:12:51 Trena Wilkerson: Exceptional! Thanks for the opportunity to  
think through this.  
01:12:51 Aicha Weiss: Thank you !!!!  
01:12:52 Rebecca Herbert: Thank you very much!  
01:12:52 Chonda Long: That was great, thanks!  
01:12:52 Margaret Williams: Thank you!  
01:12:52 Kathleen Hubbard: Thank you!  
01:12:53 Diann Christensen: Thank you so much for this!!  
01:12:53 Amy Lucenta: Thanks!!  
01:12:53 Kevin Moore: Thank you.  
01:12:54 Diana Hughes: Thank you, this was excellent  
01:12:55 Patricia Ishihara: Thank you!  
01:12:55 Kimberly Yoak: This was fabulous!!!  
01:12:56 Sharon Soule: Thank you!!  
01:12:56 Barbara Weidus: Awesome!!  
01:12:57 Jenny Lane: Thank you!  
01:12:58 Elise van der Jagt: Wonderful! Thank you!  
01:12:58 Liesl McConchie:   
01:13:02 Corina Goodwin: I would hypothesize that we need to use explicit  
instruction to introduce new topics and then gradually shift toward more  
inquiry-based learning once students have some foundational understanding

01:13:03 Ted Coe: Thank you!  
01:13:04 Kristina PEREZ: Thank you  
01:13:05 Kristen Hayden: thank you  
01:13:06 Kendra Edwards: Thank you  
01:13:06 Amy Shah: Thank you!  
01:13:06 Tina Lemmens: Thank you!  
01:13:09 Dora Trujillo: Thank you!!!  
01:13:10 Suzanne Ebrahimian: Thank you Rachel!!! 😊  
01:13:11 Cricket McClure: Thank you!!  
01:13:11 Megan McBride: Thank you!  
01:13:13 Robert Kaplinsky: Great job, Rachel. I have waited for this  
for a long time and am very grateful.  
01:13:14 Jessica Huber: Thank you  
01:13:14 Sharon Seeger: Thank you - this was fabulous!  
01:13:19 Liesl McConchie: ❤️❤️❤️  
01:13:19 Christine Fichera: So much to think about! Thank you!  
01:13:19 Latrenda Knighten: Thanks for a wonderful session!  
01:13:25 Alix Duggins: This was awesome - thank you!  
01:13:27 Joleigh Honey: Thank you Rachel-- how did the time go by so  
quickly!  
01:13:28 Deepa Bharath: Thank you Rachel!  
01:13:36 Nicole Rigelman: Thank you @ Rachel. Love hearing how your  
thinking has continued...  
01:13:37 Jennifer Lagrange: Thank you! What is the best resource to  
guide our work with kids with disabilities? IES?  
01:13:44 Ron Noval: Worth the wait! 😊😊😊  
01:13:45 Maria Yanez: Thanks  
01:13:51 Tara Fulton: Thank you, Rachel!  
01:13:51 Sara Van Der Werf: Thanks Rachel. Thanks for your research.  
Thanks for being brave. Thanks Math Community for entering with a spirit of  
learning.  
01:13:55 L Hatch: Thank you! Informative.  
01:13:58 Brynda Aker: Rachel, would you say that it's still beneficial to  
look at the What Works Clearinghouse?  
01:14:11 Joleigh Honey: @Sara- yes!  
01:14:16 Annie Fetter: An Ignite video my Math Forum colleague Max did  
about Concept-Method Procedure: [https://www.youtube.com/watch?v=mUKbL\\_OL\\_-Q](https://www.youtube.com/watch?v=mUKbL_OL_-Q)  
01:14:26 Sara Van Der Werf: (and sorry if I was distracting in the chat,  
off to make a bingo board for Saturday)  
01:14:26 Daniel Irving: Thank you for a wonderful session!  
01:14:30 Lorie Huff: Thank you!  
01:14:44 Carolyn Snook: Thank you!  
01:14:48 Jennifer Smith: Thank you so much  
01:14:50 Rosa Serratore: Yes. Wondering same as Brynda  
01:14:51 Liz Stamson: Thanks so much!  
01:14:53 Chonda Long: Thank you so much Rachel!  
01:14:54 Ashlee Treadway: Thank you!  
01:15:01 Ryan Pellow: Thank you!  
01:15:04 Jeffrey Linder: Thank you Rachel!  
01:15:06 Erin Mercer: What are your thoughts on C-R-A instructional model?



01:15:10 Jimmy Giff: thank you for this! Very insightful.  
01:15:10 Norma Borenstein Gordon: Thank you!  
01:15:14 Anastasia Betts: Thank you sooooo much!!  
01:15:28 Paula OSullivan: Thank you, looking forward to going over  
this again, so much to absorb!  
01:15:35 Ana Lupton Floyd: This is so helpful! Would love to hear more  
at another time. Rachel - please do more sessions!  
01:15:36 Karen Gayle: seeing what works in other countries is interesting.  
01:15:42 Norma Borenstein Gordon: When will the book come out?  
01:15:49 Trena Wilkerson: Cannot wait to get your book!  
01:15:50 Sharon Soule: I can't wait for your book!!  
01:15:51 Kim Smith: Where and when can we get our hands on your book?  
01:15:57 Deepa Bharath: Can't wait!  
01:15:59 Kim Smith: ty  
01:16:00 Joshua McKnight: But good practices for students apply to our  
MLD student too  
01:16:00 Brigid O'Donnell: We are looking to adopt a new math program-  
this is such an important lens!  
01:16:02 Joleigh Honey: March 9th! link again?  
01:16:02 Norma Borenstein Gordon: Heading over to pre-order!  
01:16:10 Danielle Troullier: book club with the author??  
01:16:19 Rosa Serratore: Thank you and thanks nctm  
01:16:30 Annie Fetter: Thanks, Rachel!  
01:16:31 Patricia Ishihara: Mahalo nui!  
01:16:31 Sara Van Der Werf: Thanks NCTM for making this open to all  
01:16:31 Kim Smith: Can we see the QR Code  
01:16:32 Lisa Hillstrom: Thank you!  
01:16:32 Shamira Underwood: Thank you!  
01:16:33 Mary Jones: Thank you!  
01:16:33 Rohith Adusumilli: thank you  
01:16:35 Joleigh Honey: Thank you!!!  
01:16:35 Dawn Plestina: Thank YOU!  
01:16:40 Rohith Adusumilli: bye  
01:16:41 Anita Brown: bye  
01:16:42 Anita Brown: thank you  
01:16:43 Nicola Vitale: Bye thanks!