

Webinar 2 Chat Box:

Michele Mailhot: Welcome Everyone!

Julie Smyth: Hi, this is Julie Smyth from Saco Schools!

Holly Trottier: Hello Everyone!

Mary Belisle: Mary Belisle GMS

jenny_jorgensen@yarmouthschools.org: hi everyone

Darlene: I am Darlene Ulrickson, Math interventionist at Warsaw Middle School in Pittsfield

Darlene: I am a copresenter today

Mary Calder: Hi, Mary Calder in Vermont

Julia Swan: Hi. Julia Swan from Brunswick Junior High is here.

Ha: Hi Hattie Pellegrino from Massabesic High

Darlene: I have taken time to implement tasks that promote reasoning and problem solving

Darlene: I am trying to be more mindful and thoughtful about choosing those tasks

Darlene: to elicit critical thinking

Julia Swan: I am trying to improve in areas 2 & 4. In implementing our new Big Ideas text, I have been using the suggested activities for pre-teaching and for accessing prior knowledge.

Mary Calder: With one of my colleagues we have been using "Number Talks" to help 3rd and 4th grade students share their mathematical thinking

Ha: I like to establish goals at the beginning of class through daily agenda.

Julie Smyth: I have been facilitating meaningful mathematical discourse with my math teacher leaders, who will then use the same article or prompt with smaller teams of teachers. We're creating an implementation plan for Number Talks and are very excited about this.

Mary Belisle: 8. Student thinking. Like to set aside class time to have students explain their thinking in every class.

Julia Swan: The discussions among the students has been energetic and exciting.

Holly Trottier: I have used #3, Use and connect mathematical representations. When connecting fractions to division in grade 5, I have had students model 5 granola bars being shared by eight people by creating a model, and connecting that to how 5 divided by eight is the same as five eighths.

Pearl Butler: Hi, I'm Pearl from Stratton and I teach grades 5-8 math plus Algebra. I am trying to use more mathematical representations. I am a visual learner and need to 'see' the math,

Cecile Carlton: Hi, Not currently in the classroom but I am working with paraeducators and recently worked with facilitating meaningful mathematical discourse as well as using student evidence to identify how students are thinking about the mathematics.

Julie Smyth: Let's connect, Mary!!! I want to hear more about your experience with Number Talks!

Julia Swan: What is Number Talks?

Mary Calder: Julie, I am retired but have been excited about what my co-worker last year.

Julie Smyth: It's a new name for a best practice, in my opinion.

Darlene: When I am planning a lesson, I plan for purposeful questions, I think about traditional misconceptions and guide purposeful questions to make sure students understand.

Mary Calder: The structure allows children to think, share with a partner and then several children will give their answer. The rest of the students think about whether they agree or don't agree with their peer, etc.

Julie Smyth: I fail at that with my own children - very hard to do!!!!

Darlene: We call it Grappling, an Expeditionary Learning term

Mary Belisle: I tell students that struggling makes their brain grow as does mistakes.

Holly Trottier: If students aren't used to this, it takes time for them to be willing to take the step of productive struggle.

Darlene: I try to just shut up as and let them think, rather than saving them.

Julie Smyth: Reminds me also of "effective effort" conversations that we have through our Skillful Teaching discussions.

Darlene: And having purposeful questions to guide the struggle.

Pearl Butler: As a former ELA teacher, I struggle to shut up!! Need the duct tape.

Ha: I also struggle with that Pearl

Mary Calder: The excitement of having confirmation of an answer that you have gotten is something that affirms students and also provides an opportunity to see others' strategies for solving a problem

jenny_jorgensen@yarmouthschools.org: I hear the duct tape thought

Mary Belisle: slope is same

Darlene: This is a good introduction to slope

Julia Swan: For my two points I get a slope of $2/1$.

Darlene: some students dont know that is same across each point

Darlene: on a line

Darlene: so this would be a discovery rather than TELLING then

Darlene: And I would add, how do you differentiate this task

Darlene: if need be

Michele Mailhot: discovery is far greater than telling!

Julia Swan: In order to solidify that the slope between any two points on a line is the same, the students should also plot these point.

Darlene: Great ideas Jenny!

Mary Belisle: prove it, always true??another point, make line

Darlene: There are some great online tools for slope

Mary Belisle: first times paper, grade 7 electronic, good way to learn graphing calculator

Holly Trottier: Mary, that's an important point- to prove if it is always true.

Cecile Carlton: Students could use the points on a coordinate grid and determine slope for the visual learners... hearing a lot of different ways to have students investigate this.

Darlene: great idea with the yardsticks, Michele

neal bangor: Hi everyone! Hi Julie!

Julie Smyth: It's about time, Neal! :)

neal bangor: I had a surprise student stay after school with me...

jenny_jorgensen@yarmouthschools.org: welcome Neal

Mary Belisle: 3 might be true but I dont deal with enough english language learners to be sure.

Julie Smyth: I'm hearing one of those buzzers going off by game show hosts when you read that! Learning should connect all of those!

Ha: I believe language plays a big role in mathematics and it needs to be considered a factor for ELL students.

Holly Trottier: I disagree, because a student's culture and experience limit their understanding, but does not need to limit their potential.

Julia Swan: Disagree: we need to consider many student factors in order to reach our students.

Mary Calder: I have had a colleague talk about an ELL student who was successful in math class because the mathematics was something universal. That does not mean that language was not an issue.

Pearl Butler: I agree with 3. ELL students can learn the math language without barriers.

Holly Trottier: I have had a CHinese students who knew no English who understood many deep mathematical concepts. We could connect through visuals and the numbers.

Michele Mailhot: The use of visuals is very helpful for all students!

Mary Belisle: take out the first "the same" and its OK

Julia Swan: Hmm, I think I disagree. Shouldn't the learning opportunities be geared towards the student's individual strengths and weaknesses (as realistically as possible.)

neal bangor: students definitely don't need exactly the same learning opportunities

Pearl Butler: I don't think they are the same. Simply providing equal opportunity will not achieve the required results. Differentiation is essential.

jenny_jorgensen@yarmouthschools.org: I think it's giving equal access but it might not all students will need the same thing in order to access the math

neal bangor: right pearl!

neal bangor: i've had veteran teachers swear that 4 is true...

Mary Belisle: The important thing is to believe that ALL students can learn.

Cecile Carlton: Still looking for the research that supports this claim...

Holly Trottier: For #4 I have many colleagues who agree with this.

Pearl Butler: Flexible grouping is a much more effective tool.

Holly Trottier: Students have so many ways of approaching a task.

Ha: I believe regrouping needs to be done. Students need to work with different students. They can learn from each other.

Julia Swan: In my experience as a teacher, I have seen #4 work very effectively. However, depending upon the culture of the school and the teacher training provided, other forms of grouping can be equally as effective.

Pearl Butler: I totally agree that students need to have opportunities to learn from each other.

Michele Mailhot: Opportunities to see different approaches to problem solve is more varied in mixed grouping!

Mary Belisle: #4 makes some teachers, parents and students feel good but is pretty unfair for all.

neal bangor: i like having heterogeneous groups and then trying to differentiate within that group

Holly Trottier: Flexible working has worked well for me this year. The groups change daily, and there is no stigma.

Mary Calder: The importance of classroom culture and accepting how each person is strong in some area and not others is important when you have heterogeneous grouping

Michele Mailhot: I agree Mary, it does seem pretty unfair!

jenny_jorgensen@yarmouthschools.org: Tracking often changes the type of discourse in the classroom for both a high track and a lower track

neal bangor: "lower" group becomes a self-fulfilling prophecy

Mary Calder: We have to be careful having strong students help struggling students so that they are not given the appropriate opportunity for their own learning.

Holly Trottier: I agree Mary.

neal bangor: I definitely agree that emphases in the curriculum are always evolving

Holly Trottier: I am still working to understand and implement learning progressions, but I believe that is a powerful tool to help students be successful.

Mary Belisle: I agree with both. I like the stimulation of ever changing ideas. I find that #2 is really hard for teachers to learn because they may be locked into one situation.

Julie Smyth: Absolutely, Holly! I think working with learning progressions is extremely powerful.

Pearl Butler: Having a keen awareness of learning as a continuum is important for all content areas.

Mary Calder: I agree with both of these statements. One of the best changes has been the acknowledgement of the need for math content knowledge when working with elementary students.

Michele Mailhot: Learning progressions are vital to help support and build deep conceptual understanding for both teachers and students!

jenny_jorgensen@yarmouthschools.org: What do you mean Mary but locked into a situation?

Mary Belisle: Teaching one grade level for example.

jenny_jorgensen@yarmouthschools.org: Oh, okay thank you Mary

Julia Swan: Agree with both: in statement #5 the word 'appropriate' is important since some changes might not be appropriate for given student development. #6 speaks to the importance of a teacher having in-depth understanding of the concepts.

Mary Belisle: I feel honored to be able to do many grade levels.

neal bangor: in sago we are working on #6, getting a clear picture of where students are in their overall progression, it really helps

Pearl Butler: Mathematics is certainly ever changing.

jenny_jorgensen@yarmouthschools.org: Doing many grade levels does provide a bigger view of the math being taught and learned.

Mary Belisle: Doing multiple grades is good but requires a lot of work. That makes it unattractive to most.

Holly Trottier: I have really enjoyed teaching math more with recent changes in emphasis within the common core and the mathematical practices.

Julie Smyth: Is math ever changing, or is our conceptual understanding gaining ground?

Pearl Butler: I also teach multiple levels. It takes a lot of organization.

Julia Swan: Last year in my school, we took one topic (ratios and proportions) and looked at the development over three years (grades 6,7,8). It was such a worthwhile discussion.

neal bangor: my mentor teacher always used to complain about #5 though, he would always say "arithmetic doesn't change" and get frustrated by the evolution of teaching math

Michele Mailhot: I think our conceptual understanding is gaining ground!

Pearl Butler: I agree, Pam

jenny_jorgensen@yarmouthschools.org: Arithmetic might not change but how students make sense of it and explain it does change

Michele Mailhot: make sure to check out the progression documents written by Bill McCallum and his team!

neal bangor: agreed jenny

Julie Smyth: Thank you, Pam! Neal - look into Bill's work for me. :)

Holly Trottier: I see students making much more sense of their math in recent years.

neal bangor: got it

Mary Belisle: Application of ideas is changing. Many things done by hand years ago are computerized now and frees us to do and learn more.

Darlene: No way for #7! but online videos can be a useful tool

Holly Trottier: Online instructional videos can support classroom instruction, but students need a teacher to help them uncover misconceptions.

Mary Belisle: Technology is a good support (until the server goes down.

Julie Smyth: I have many negative thoughts about 7 and 8 so I'll comment on #9....I'm drawn to the word "assist" - I like that.

Michele Mailhot: link to the progression documents: <http://ime.math.arizona.edu/progressions/>

Darlene: My student use them to reinforce skills or to reteach a skill when they are doing the homework

Pearl Butler: Technology is a tool to be used with a specific goal in mind. Otherwise it can be a distraction.

Julia Swan: No to #7&8; yes to #9. I've been learning about how to implement GeoGebra this year and while it is a time consuming task for me, I believe it will be a powerful exploration tool for my students.

Ha: Online instructional videos are an additional tool; especially if you make your own.

Darlene: yes a distraction

Mary Calder: I disagree with both 7 and 8 but do agree with #9

Darlene: videos used maybe to teach a skill but no opportunity to pose purposeful questions or respond to students

neal bangor: i agree ha i think videos can be more meaningful when you make them yourself and already have a relationship with the students, just to supplement a lesson from class

Darlene: # 8 is not true either

Julie Smyth: Regarding Ha's comment....imagine how powerful to have students create their own videos about a particular lesson?

Ha: Definitely a supplement or tool for working out problems at home.

Darlene: tools need to be used as part of an overall discussion

Holly Trottier: I like that idea Julie!

Mary Calder: When students are in front of a computer screen there is often less conversation and discussion. One important way to build knowledge and skill.

Darlene: I like that idea too Julie!

neal bangor: no way on #10! formative assessment is an essential part of the learning process

Holly Trottier: Powerful assessment can help students, but it takes a lot of thoughtful work on part of the teacher.

Ha: I agree with you Neal

Julia Swan: Disagree with 10; in 11 eliminate the term 'primary'; agree with 12.

Mary Calder: I agree with you Neal on #10.

Darlene: Although it may seem like that is true...#10 of course is not

Darlene: formative assessment with thought and purpose

Pearl Butler: I agree with 12. Students need to have time to reflect on their learning.

Mary Calder: I think the word primary in #11 is a little overboard.

Julie Smyth: I couldn't disagree more with #10. We as teachers are constantly assessing our students' understanding. Have you viewed the Teaching Channel's video on "My Favorite No"? If you haven't, it's a must-see! Such a powerful formative assessment!

Julia Swan: Yes - I tried that idea last week. It was great!

Ha: I love My Favorite No and used it in class!

Mary Calder: I like #12 because it acknowledged that students need to be able to assess their understanding, too.

Michele Mailhot: : <https://www.teachingchannel.org/videos/class-warm-up-routine>

Julia Swan: Absolutely agree with #13 but I wish that school time was provided for this.

Holly Trottier: I agree with #13, but #14 takes work and practice.

Julie Smyth: I'm all about the growth mindset, so #14 isn't sitting well with me.

Mary Belisle: 13. Nice. Working with (most) colleagues really helps pedagogy. I feel 14 is ok but think all these are not innate but can be learned from others and incorporated.

Julia Swan: #14: there may be a minimal level of innate and natural ability required but all teachers have the potential to improve as teachers (just as we believe of our students.)

Pearl Butler: Working in a rural school limits the amount of time to interact with others who teach what I teach. I welcome this opportunity to connect with others.

Michele Mailhot: Link "My Favorite No" from The Teaching Channel:
<https://www.teachingchannel.org/videos/class-warm-up-routine>

neal bangor: i agree smyth, i think some people may start further along the effective progression than others but everyone can learn

Julie Smyth: I want to be like Neal when I grow up. :)

Pearl Butler: Once we stop learning and growing, we become less effective.

jenny_jorgensen@yarmouthschools.org: I agree with Pearl. Once I'm not learning and growing I need to change jobs

Mary Calder: There is a shift in how we see our PD as part of the day-to-day life of a teacher rather than something only occurs outside the school. I think it is hard for parents, community members and even administrators to understand that embedded PD strongly impacts student learning.

Julie Smyth: Mary, I love your wording - I'm stealing that for my budget presentation tonight. Very well said!

Cecile Carlton: If #14 were true - would we need PD? We need to acknowledge that we are continuous learners.

neal bangor: so true pearl and jenny, if you've reached your end point it's time to leave the classroom. As Cynthia Hillman-Forbush always says if you don't want to keep learning and evolving "they're hiring at Wal-Mart"

Mary Calder: I like your comment Cecile!

Pearl Butler: I need to remember that quote, Neal.

Mary Calder: Right on Cynthia!

neal bangor: love cynthia

Michele Mailhot: Just announced today!

Michele Mailhot: Link for Math PD registration: <http://mainedoenews.net/2015/01/14/connecting-classroom-to-math-assessment-focus-of-maine-doe-workshops/>

Julie Smyth: Can someone guide me on how I can purchase the e-books for my K-8 math staff? (We're only a K-8 district.)

Michele Mailhot: if they participate in the upcoming math pd they will receive a copy or you can purchase them through NCTM

Julie Smyth: I'm talking 75 teachers.....

Darlene: Check with NCTM Julie

Julie Smyth: Ok - thank you!

Darlene: the ebook is only 3.99

Michele Mailhot: link for NCTM: <http://www.nctm.org/catalog/product.aspx?id=14861>

Julie Smyth: So I would purchase 75 e-books?

Julie Smyth: This has been wonderful - thank you!!!!

Michele Mailhot: Yes, contact NCTM for a bulk purchase of the ebook

Mary Calder: I missed the 1st session so am glad I was able to be here tonight.

Michele Mailhot: So happy to see you online Mary! (Michele)

jenny_jorgensen@yarmouthschools.org: We are glad you are here too Mary and you can access the Webiinar 1 slides at the forum

Julie Smyth: Please finish out the book - you've modeled great conversations for us to have back at our districts.

Julia Swan: If you are looking for more teachers to participate perhaps you could provide a summary of the book to entice others to read it.

jenny_jorgensen@yarmouthschools.org: At the end of the webinar there is a survey that we'd greatly like you to complete. I think it will show up after you log off the webinar. Thank you so much

jenny_jorgensen@yarmouthschools.org: Thank you everyone for great chat participation!

Mary Calder: NCTM president is Diane Briars - you may want to edit the slide

Pearl Butler: Thank you for the great conversation!

Michele Mailhot: Thank you Mary! We will fix that!

Holly Trottier: Thank you for the insightful ideas!

Cecile Carlton: Thank you all for this opportunity to connect!

Ha: Thank you!! :D

neal bangor: Thanks everyone