

Math Teacher Lounge transcript
Season 4, Episode 5:
Cultivating mathematical joy

Dan Meyer (00:00): OK, folks, we're back. Welcome back to Math Teacher Lounge. I am your co-host, Dan Meyer.

Bethany Lockhart Johnson (00:05):
And I'm Bethany Lockhart Johnson. Hello.

Dan Meyer (00:09):
Hey, Bethany. How is everything?

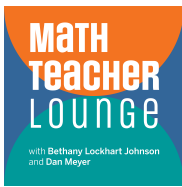
Bethany Lockhart Johnson (00:11):
I mean, hey, holidays. With kids. It's great.

Dan Meyer (00:15):
It's happening. We're doing this.

Bethany Lockhart Johnson (00:16):
This is like the first holiday where my kid—like, we're counting lights; we're, we're spotting snow people. I mean, I can't complain. How are you, Dan?

Dan Meyer (00:27):
Yeah, doing fine. We are out of the terrified-of-Santa phase right now, so it's a nice place to be. For me. With kids. No longer feeling embarrassed by kids screaming in line, on Santa's lap, you know. But I get it. It's a little bit weird, just, like, hand you to a—

Bethany Lockhart Johnson (00:41):
Wait!



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Dan Meyer (00:41):

—a grown man with a huge beard and sit with them. So I'm sympathetic. Yeah.

Bethany Lockhart Johnson (00:47):

Terrified of the who?

Dan Meyer (00:50):

Santa.

Bethany Lockhart Johnson (00:52):

Oh, of Santa! You know, I don't really think he knows who Santa is. Every time he sees these pictures of Santa in this book, my kid says, "Baa." He thinks the beard is a sheep. Which I'm like, let's go with that. So, you know.

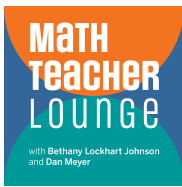
Dan Meyer (01:05):

Love the mind of a child. Love the mind of a child. So folks, Bethany and I were in Palm Springs, California, sunny Palm Springs, California, for the regional Southern California Math Conference. How would you describe, that whole, you know, bonanza, Bethany?

Bethany Lockhart Johnson (01:20):

Well, I have to say, there's something really special about it. Most of the folks in attendance are within driving distance, and so I feel like I see kind of the same people again and again, and they start to feel like more of a community, which is really nice because I remember I even ran into my professor from college.

Dan Meyer (01:40):



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I agree with you; I love that conference. It's huge, as far as, like, a state-level conference goes. And some really exciting presenters came in. And also the theme of the conference happened to be the same theme as our podcast this season: "Joy in Mathematics." So, so many sessions were wrestling with and thinking about math class, joy, why they so often seem in opposition to one another, and what we can do about it. So it was a very fitting moment for all of us.

Bethany Lockhart Johnson (02:10):

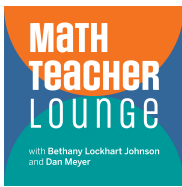
Like you said, the theme being joy in mathematics, we had to share it with you listeners. Because yes, that's our theme, joy in math! So imagine our delight—OK, I'll speak for myself—imagine my delight when I see that on the docket is, session after session, talking about joy in math. Can you tell I'm the one who suggested this theme for the season? <Laugh>

Dan Meyer (02:33):

I love it. No, I loved it too. So we both split up and saw different sessions. We both gave a session. I got to attend Bethany's session, which was a joy for me, and I thought—we're excited to bring to you folks some of the learnings about joy in math from that conference. So we might trade some notes about a couple sessions. I got an issue inside my own house right now with my own child/student related to joy in math. I might bother Bethany to help me troubleshoot to think about. But yeah, we're gonna wrap up this calendar year for us with some thinking about joy in math class. Bethany, what was the session for you? Gimme one session that I wasn't at that brought you some new ideas about joy in math class.

Bethany Lockhart Johnson (03:14):

Ooh, well, I went to Zak Champagne's, friend of Math Teacher Lounge. He has been featured in several of our episodes. He's from Jacksonville, Florida, and his session was all about routines. The way he started his session was kind of bringing us all

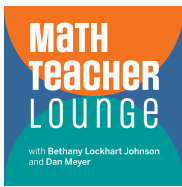


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together and making it really clear, like, "Hey, listen, I wanna tell you who I am. I wanna tell you about my lens, so that as we enter this work together, you know who I am and what I care about." And one thing that was so clear is that Zak cares so deeply for his students and has thought so much about it. How does he make his math classes a space where all of his students feel welcome and engaged and challenged? And so, something that he talked a lot about was routines, and really talking about how once you get these math routines down, then students know what's going to happen, right? They know what comes next, in terms of the routine. They know how to do it. So it becomes this safe space where some of their worry or anxiety can be put down so that they can experience that joy, the discovery of new ideas, of connections, of new learning, introducing these new ways of thinking about numbers...but within the confines of this really safe routine. And I've thought about routines before, but it was so lovely to hear Zak frame it, and really think about opportunities for students to feel safe. Like, "Hey, OK, I know what happens next. I know what this is gonna look like, so therefore I am able to take some risks with these number choices," et cetera. So I loved it. I loved this session.

Dan Meyer (05:04):

That's really exciting to me. The word routine...like, to someone else, or someone not on this podcast with us right now, could sound like the opposite of joy. Could sound like routine. Oh, that's boring. But it's making me think about the difference between novelty and familiarity, and how when something is totally novel, you know, "I've never seen anything like this before," that's like not necessarily a joyful experience. It can be a fearful experience. It can be, you know, a negative kind of surprise. And if something is completely familiar, there's no way to kind of improvise within the structure. That also means a lack of joy and an abundance of boredom there. But what I think I hear you saying is that Zak is somewhere between those, where the routine, there's enough familiarity to dial down the anxiety, but not so much familiarity, there's still room for students to surprise



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themselves with number choices and experience joy there. How close is that to what you were describing?

Bethany Lockhart Johnson (06:05):

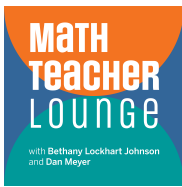
Yeah, no, that's exactly it. And I think that as teachers, as educators, we are trying to think about what our days look like—the flows, the routines—not only so that you have students kind of all working together and we're moving the day along, but also because, like he was saying, you have these containers where this magic can happen. And I think that's exactly right. So there is definitely not boredom happening in Zak Champagne's classroom, let me tell you.

Dan Meyer (06:36):

No doubt, no doubt. <Laugh> What I was enjoying at the conference was all these different kinds of routines or task ideas, that in doing them, like in acting, we would become more joyful. We would experience a joyful surprise from our students. It's just really hard to change beliefs in a vacuum, is my experience. And I loved all the ideas that I had at the conference for ways to just step out, step out in faith, five minutes of a class, do something different, and let students surprise you a bit and become more joyful through the doing, not through the trying to believe more.

Bethany Lockhart Johnson (07:12):

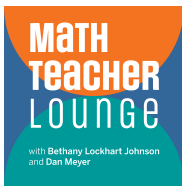
And I think the more that we can bridge that divide between the idea of joy and mathematics, bring them closer together, and the more often we can talk about them in the same room, in the same context, the more we start pushing back and challenging in a joyful way. You know, I got to see you a lot this conference, but there were some times we were apart. So fill me in: What, where is the session you went to?



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Dan Meyer (07:38):

Tons of Bethany time, had a blast, don't be too jealous, folks. So yeah, I, I'll pick one session that was—it was in a smaller room, and I love...it's just, part of me just wants to go to the big room, 'cause it's some big name, flown in from somewhere else, and I can hop on my laptop and answer some email and keep one ear open. It's like a seasoned conference-goer tip here, folks; write that down. But it's also really fun to just head out to the smaller rooms and just see someone who just let it hang out there, like some new idea or some new speaker or whatever. Anyway, so I went and saw someone I knew who's a really solid speaker and is a smaller room. It was about assessment, so not, you know, a particularly glitzy topic, per se. But what I loved about it was how it connected themes of joy into assessment. Which is to say, a lot of assessment doesn't—the idea here from Jessica Bally and um, Jeremy Thiessen was that a lot of assessment doesn't see students; it doesn't see their brilliance, especially computerized assessments will give teachers readouts on students that seem engineered in a lab to destroy whatever joy the teacher might have in students and their learning. It's like, your students are 87% red box and they're like 10% yellow and they're 3% green. And like that kind of way of thinking about students will have the effect of creating like a deficit mindset in teachers towards their students. Here's all the things my students don't know. So this group was talking about asset-based assessments and they're developing these. They're thinking about them. You can implement them in your own classes right now. Just this idea of instead of grading as right or wrong, they showed us the same assessment with right or wrong readouts, and also a readout that was like, "Here's the kinds of thinking that we saw: Thinking based on ratio thinking, thinking based on multiplicative reasoning, or whatever else. And how different that was as the teacher to say, "Oh, my students DO know a lot. And it's very interesting." So that was, to me—assessment is not often...I dunno, it's kinda like the dirty laundry, the dirty business of math teaching, in some ways. Like, I guess it's like, it doesn't get the same kind of limelight, I think as like, "Here's this awesome new task format!



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Problem-based learning!" or whatever. So it's so exciting, exhilarating to see some people take on assessment and say, "What is the relationship between assessment and joy in teaching and learning, and what can we do differently?" That was pretty exciting.

Bethany Lockhart Johnson (10:12):

So the joy, then, you're saying, is like, you're approaching assessment by saying, "What do my students know? Or how are they thinking about this? Or what are they bringing to the space?" Is that kind of one of the ways they were talking about it?

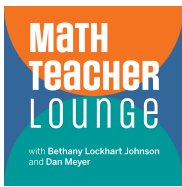
Dan Meyer (10:29):

I think this group pointed out that the effect of assessments currently can be to make teachers bored by students and their thinking, or fearful of it. Like, "Oh no, 75 of my students are one or more grade levels behind!" Well, what does that even really mean? Does that mean they know nothing from the last two years or more? No, absolutely not. So anyway, I love this idea of cultivating teacher joy in student thinking by rethinking assessments, which will then create joy in students who feel like the grownup in the room is interested in and surprised by and delighted by their thinking.

Bethany Lockhart Johnson (11:10):

You know where else we felt some joy, Dan? Just wandering about, hearing teachers talk about the sessions they went to, talking with, you know—just meeting people! Right? Communing! Learning together!

Dan Meyer (11:26):



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Yeah. So I took my little field microphone down to the floor of the exhibit hall and found someone talking about joy in math and just like, get a sense of the vibe from this clip right here. You'll feel the energy. I promise.

Dan, recording (11:38):

Hey, this is Dan here, talking with Sydnee Morales. And you just described a really joyous moment with students in class. Let us know like what happened for you and how it happened.

Sydnee Morales (11:47):

Before I watched it at NCTM, I was really afraid to have students make mistakes and tell them that they were wrong, because I didn't want them to feel afraid of making mistakes. Like, you're just over on the subject, right? And so after watching you, and you discussed how we could say, "Hey, it's wrong, but it's really interesting how you said that or how you got there. Let's talk about it." And so I ended up doing that with one of my students and I said, "Hey, um, that's wrong. Well, let's talk about that." And so I put it up on the board and then as a class we collaborated and we talked about it and what misunderstanding there was behind it, and we all were able to figure out how it should have been solved. So it was like a really great moment for the kids and they're all really happy. And so, yeah! <laugh>.

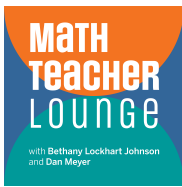
Dan, recording (12:29):

That's awesome. Thank you so much.

Bethany Lockhart Johnson (12:31):

I loved chatting with people and saying, "So let's just talk about joy. Joy and math." So excited to share that with you.

Bethany, recording (12:40):



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I have another fellow educator, Jennifer, here. What does joy in mathematics look like to you? What does it feel like?

Jennifer (12:46):

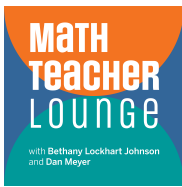
In my classroom, we love balancing learning and fun. And they've discovered that when they have both, they just get to enjoy the entire experience. We start off with a Notice and Wonder. We start off something where everyone can have fun, join, and then we do small groups. So they get to engage with every single moment in math and have fun with it. 'Cause I don't want anyone to bog down and say, "I can't do it; I can't do it." Someone else chimes in and says, "Let me help you," or "You can do it."

Bethany Lockhart Johnson (13:21):

So I went to a session with Angela Turrou and Nick Johnson, and it was all about being intentional and playful. So they were talking about how do we build on children's math ideas in the classroom and routines and in play, in conversation. I love learning from them. They are incredible educators. Early childhood ed. They work a lot with Megan Franke. They come from a CGI lens: cognitively guided instruction. And I continuously learn how to listen and appreciate children's thinking. After the session, Dan and I got a chance to sit down with them and hear a little bit more about their thinking, about how, like, what do young kids know about joy in math that we don't? Right? Because they work with our youngest learners. Main thing I got is that we have to have them back on the podcast! I love learning with them, love learning from them. And here's a clip from our interview.

Bethany Lockhart Johnson (14:23):

If you're familiar with CGI, cognitively guided instruction, and you are familiar with counting, young people's thinking, then for sure you know, Angela Turrou and Nick Johnson. They are just leaders in the field of early childhood ed and thinking and



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listening to children's thinking, and just the respect that they give to young people's thinking when they're in a room with any child. They just—they listen with such respect and dignity and grace. And I've learned so much from them. And I'm honored that they were willing to chat with us for a bit.

Dan Meyer (15:03):

Yeah, thanks for being here, both of you.

Nick Johnson (15:07):

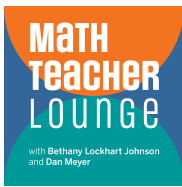
So, I'm Nick Johnson. I'm an Assistant Professor at San Diego State University, in the School of Teacher Education. And what gets me excited about math...I get excited about how kids think about math and the power of that idea to really change the way that school math happens for them.

Angela Turrou (15:30):

Oh, I love that. Hi, I'm Angela Turrou. I'm a researcher at UCLA and I just wanna say ditto, Nick. But really, all of the things that you just said, Bethany, about children's thinking and children's brilliance, and here we're at this conference around joyfulness in mathematics, and young children bring so much joy to our work. But we need to create space to see that and to cultivate that and nurture that. So that's something that excites me too.

Dan Meyer (15:58):

This brings a question to mind for me. I'm hoping you can help me out with here. Is that there's a focus of this podcast series on student joy and also teacher joy. And what I'm learning from some of the work that you folks have done is how the two



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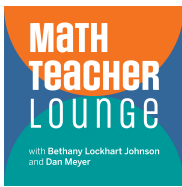
can be related, and how when teachers are not experiencing joy in their own work, it makes it hard for students to experience joy. And the reverse, seems like, can be true. Do you have stories you can offer us, through your work in teacher development, even where you help teachers encounter and develop student joy, and what that does for the work of teaching itself? I'd love to hear more.

Angela Turrou (16:28):

Well, I mean, one thing that we think a lot about is in kind of traditional ways of teaching math, you, you tell kids what to think or what to do, right? You give them good ideas and you hope that they learn them. But, you know, if we're really building on a perspective of teaching from children's ideas and eliciting children's thinking and responding to children's thinking, what we do is we help teachers go into their classroom space, and what what they're expecting is to be surprised by what children know and what they do. And so there's just this little bit of, you know, it's a little bit of a risk. But you go in and you ask a question like, a "What do you notice?" or a "What do you wonder?" kind of a question. You ask them; you pose them a story situation that you think that they can relate to. And you say, you know, "Can you think about that?" Right? "Can you help me figure out how many cookies are left?" Or whatever. And as teachers are making space for this—which, again, is a risky thing—what they're doing is they're being able to hear their ideas. And the stories are: "I didn't know children thought that way." Like, "I expected my own expectations 'cause I have my own mathematical thinking and you know, my own ideas. But I was not expecting that that's what children were gonna do." And for me, that's an entry point into this lifelong journey of, well, now I wanna continue to learn what kids know and help me do that.

Bethany Lockhart Johnson (17:57):

I have been in many of your sessions and every time, every single time, by the end of the session, the educators that are walking out of the room are buzzing with excitement and possibility. And I so often hear them say, "I've never tried this." "Oh,



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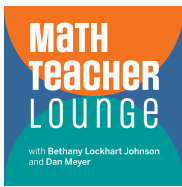
you know what? When I do it, I always did it this way. What if I did it this way?" And sometimes it's gonna be a hot mess. Let's be real. Sometimes it's gonna be scary, speaking as a teacher who has tried this many times to just listen to the students thinking. But it's worth it. Right? I mean, I would say so.

Nick Johnson (18:32):

I think it's always like...we can go to a professional development session or read a piece of research and be like, "OK, yeah, that, that makes sense." But there's something different about seeing it with the children that you work with each and every day and really thinking about it in the specific context with the young people that you know. So I think part of what I love about this work is that we get to actually go into classrooms and actually work with young people and with teachers, and kind of learn side-by-side with one another. Because you can kinda have an idea in an abstract, but then sometimes in the moment it doesn't quite look the same way. And finding that little thing to be surprised about, and calling attention to it, and recognizing it for the brilliant idea that it is, is something that like we have to...we have to be in community together. We have to do that with one another.

Angela Turrou (19:46):

Well, the thing that you made me think about is, again, being invited into teachers classrooms, you're stepping into a community that's already been built. And so what I love about being in classrooms is hearing what the teacher knows about that student. And how they're seeing this this come up. Because there's a history there, right? I mean, your opening question was, "Is this worth it for children?" Or you know, "What are the benefits of this?" And so many teachers say, "Well, you know, this child in particular, last year, they hated math, right? They didn't see themselves as a math person. They would wanna run out of the classroom when it was math time. But now that they're in a space where they know that their ideas are valued, they might think a little bit differently." The teacher's really honoring that thinking and figuring out and positioning that as a really important part of our learning



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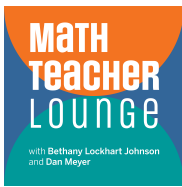
community. Hearing a story like that, that we wouldn't have known as an outside person, I think that it's just rich. It deepens, it brings richness to what we're knowing about this experience. And it really humanizes these math ideas, 'cause again, they're...they're people.

Bethany Lockhart Johnson (20:59):

I can think about moments when I really saw joy in my students' active doing of math. Whether or not they were considering it as "this is what math looks like," they were joyful. They were doing math. And I know that that is often...like the story changes if you revisit them in third grade, fourth grade, fifth grade. You know, for me, fifth grade, whatever. But what do young people you work with—you've worked with hundreds and hundreds of amazing young people—what do they know about joy when approaching math, when approaching mathematics, that maybe they lose, that maybe we don't know, that maybe we need to remind ourselves of? I mean, being in the conference with the joyful theme, thinking about all the work you do and all these moments of surprise and joy...what do they know about it that we should know?

Nick Johnson (21:56):

I mean, part of it...we have this really incredible data from kindergarten classrooms that we've seen. It's been replicated over and over: Kindergartners can solve all kinds of problems. They can solve multiplication, division problems. They can solve even some of these like pretty abstract—I dunno, what is the best problem—like a systems of equations problem or something like that. One of the things that young kids don't have often are these preconceived notions of, "Well, there's a way I'm supposed to do this." And so they can approach things from—it's really natural to approach it intuitively. That's what we wanna help preserve, right? That's one thing that historically school starts to take away from from kids. Especially in math, I think some people would say. Because when we can help kids to tap back into that, to see, "No, actually, your idea DOES make sense here." And to Angela's point, even



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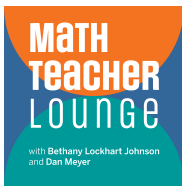
when kids are still working on things and there's a part of what they're doing that is a little bit unfinished, or they're off on a little bit of a count...at its core, how kids make sense of math is, like, intuition's really, really powerful for young kids. And to help come back to that and to help kids to see that you can trust yourself.

Angela Turrou (23:28):

I mean, children are just curious, right? They're just curious in ways that are very mathematical, again, right? Like, it isn't just curiosity for curiosity's sake. There's so much mathematical work, as children are engaging in the world and engaging with the environment around them. And so, we're thinking a lot about—especially these days, —universal preschool, younger and younger children in elementary school settings, and how much it feels like stuff from the upper grades is just gonna get filtered down younger and younger. But instead, how can we bring the best of what's happening in early childhood settings to help inform how we're crafting this ever-changing landscape of young children being in schools? So my hope is that we're helping teachers find ways to just continue to create these spaces to cultivate children's curiosities. And then, like Nick was saying, our work as professional developers is to help teachers learn a lot about what are these early ideas that children might have about counting, about putting numbers together, and taking them apart, and sharing something with your siblings so that you have the same amount.... How can we help them know a little bit more about that? So that they can recognize the mathematical value in how children are engaging and acting upon their curiosities, and play with each other?

Bethany Lockhart Johnson (25:01):

I know how busy conferences can get, and you all just wrapped up a session. You have more sessions later on. So we're super-honored that you would be willing to sit down with us and have this conversation. Where can folks continue this conversation?



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Nick Johnson (25:16):

One of the things that we got to work on, that Angela did so much work on, is the DREME TE website has so many resources for teacher educators and videos of young people that I think can be really, really powerful ways.

Bethany Lockhart Johnson (25:32):

And that's D R E M E, right? TE. OK, great.

Nick Johnson (25:36):

So we have some resources that are out there.

Angela Turrou (25:39):

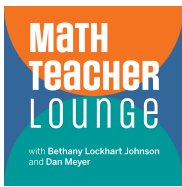
And those are free. Free and available and open-access online.

Bethany Lockhart Johnson (25:44):

Thank you. Thank you for your time. And we are so excited to bring this conversation into this space, into the Math Teacher Lounge. And may this conversation continue. Thank you.

Dan Meyer (26:01):

So I would love to close out here and get some personal help from Bethany, my primary educator expert, my little-kid educator expert. Got some stuff at home that might be relevant to you folks as well. Here's the situation. I got a kid in kindergarten. Goal right now is to know all the numbers from 1 to 100. OK? And I'm feeling a little bit of tension in myself, between my ideals and the reality of how my kid experiences joy in math class. Which is to say two things simultaneously. It doesn't feel joyful to feel dumb in math class. Just kind of, period. Hope that's

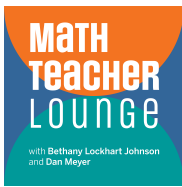


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agreeable to folks. Like, feeling behind; feeling like everybody gets a thing you don't get; feeling like you can't contribute. That is a—there's a lack of joy there. And I've heard some of that from my kid, right? And so what I've been doing some, and my wife, his mom, has done as well, is work after school. And print out some numbers, and start working on numbers together. And he's also gotta say them in Espanol, because it's a dual-immersion course. So there's a lot going on here. But what I'm noticing is that my efforts to help him feel joy in class by not feeling behind people...the methods there sometimes don't feel very joyful. You know, to invite him to commit to memory stuff that feels important in his class...I'm trying to figure out how to make that feel more joyful. Like, what is the point of doing if the method is not joyful? If the means is not joyful? Towards what is hopefully a joyful end? There's a conflict there. And I am feeling that conflict. And I wonder if, Bethany, if you had any thoughts about this. And thoughts about, you know, what I might do to resolve this tension.

Bethany Lockhart Johnson (27:55):

What I would say is, you know, I'm thinking about the title of Angela and Nick's talk, "Intentional and Playful." How can you be intentional with your goals? But then, also, how can you be playful in it? So speaking really specifically about something like counting to a hundred: If you think about it, counting to a hundred, it's kind of just like, until you have a context for it, it's kind of like just lyrics to a song, right? It's just a really long song. And I gotta learn this kind of boring song. 1, 2, 3, 4, right? And I gotta do it again and again. And the same with ABC. I'll sing the alphabet, I'll sing ABCs with my kid, but it has no context, right? It's a song. And I'm not saying don't count with your kids; I count with my kiddo all the time. We count things. But I have to remember, what is the context? Why does this matter? Right? And so helping your kid have some context for it. A couple things that I would think about: "We're gonna walk somewhere; let's count our steps." Right? So we're counting, and "I wonder if this is more than the steps we took yesterday? Is it gonna be the same steps going there to the mailbox as it is going back?" You're connecting it to



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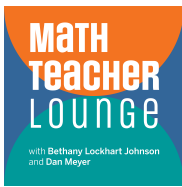
quantity, right? And then the other thing is, I love—it can be a homemade 100 chart. I love games with 100 charts. There are folks out there doing amazing—have amazing ideas about how to do play with number charts. But even filling it in, you can even do this with something like a calendar, or at the start of the month, you guys are filling it in together: "So where would this number go?" Or, "There's a couple numbers missing; can you help me figure this out?" And the more you guys work with these numbers, both saying them out loud and also in like an actual hands-on experience, through something like building a calendar, through counting collections; the more you're doing that, the more you are helping to build a frame of reference. Right? I think the thing I would not do: I would not do worksheets where every day you have to fill in the 100 chart and just like rote, rote, rote. Because that's not fun. Right? That's not playful. And if it doesn't have a sense of purpose or intentionality, it's gonna be missing some of those core things that we want math to be for our kids.

Dan Meyer (30:26):

Yeah. It feels like, you know, someone is thirsty, so I just like dump a barrel of water on 'em. And I am reacting to this need that I feel like my kid has. Like, have some knowledge! But I need to watch myself, and make sure I'm not pursuing what feels like the most direct route there, and in doing so, miss a lot of joyful opportunities to develop that same kind of knowledge. Because I feel like when I do the rote work—and there hasn't been like a ton of that, but enough to make me feel annoyed with myself when I do that—it feels like my kid, in addition to learning numbers, is learning a lot of bad messages about what math is and about what school is, as well.

Bethany Lockhart Johnson (31:13):

Yeah, I think that's such a good point and I'm glad that, like I said, you're paying attention to that. You're noticing, "This feels in conflict. This doesn't feel like what I want my math class to feel like for my students." And so I know we're talking



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specifically about counting to a hundred, but I think this goes with any of the goals that you might have for your kiddos. Right? Like, what is the purpose? How can you make it matter? How can you do number hunts at home? Or find numbers that matter to your family? Oh, there's four people in your family! Oh, your mom is 67! Oh, you know, these numbers that mean something, right? And start building this context and this connection and a relationship to math. 'Cause I think that's where the joy comes in. And so I am excited to hear about what you decide to try out with your kiddos.

Dan Meyer (32:05):

Thank you so much, Bethany. And this probably won't be the last time we chat about how to support students in learning math and also loving learning math. And I appreciate your expertise with kids. I know so little about.

Bethany Lockhart Johnson (32:17):

Your own children!? Kids? You know so little about??

Dan Meyer (32:20):

<laugh> Well, I mean like learning-wise. Like, how they learn.

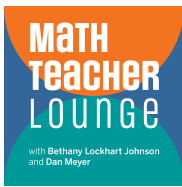
Bethany Lockhart Johnson (32:24):

I know what you mean.

Dan Meyer (32:24):

I do know 'em. I do know 'em. OK. Yeah, if you folks have questions about your own teaching dilemmas, feel free to email Bethany Lockhart Johnson. Look her up on Twitter.

Bethany Lockhart Johnson (32:37):



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Stop! <Laugh>

Dan Meyer (32:37):

You know, it seems unfair that I'm able to get your expertise just because, you know, I share the podcast mic with you. We gotta open this up to everybody. You know, a mailbag episode! Let's do it, Bethany! Let's go!

Bethany Lockhart Johnson (32:49):

This is about learning with and from each other, Dan, including our listeners. So we'd love to hear your ideas. You can find us on Twitter at MTL show or on Facebook in our Math Teacher Lounge Facebook group. We will see you there. Thanks so much for listening.