

**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (00:00):

We're recording. What's up, everybody. This is Dan Meyer with Math Teacher Lounge.

Bethany Lockhart Johnson (00:08):

And I'm Bethany Lockhart Johnson. We are so excited to be back. Season Four, Episode Two. Hi, Dan.

Dan Meyer (00:16):

Hey, Bethany, how are you doing today?

Bethany Lockhart Johnson (00:18):

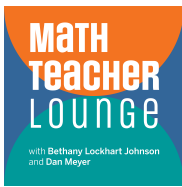
I'm so excited to be talking with you! You know, as we record this, our reunion at NCTM is getting closer and closer.

Dan Meyer (00:28):

The NCTM live show is gonna be bonkers. I don't think people are ready for it. You think you know what we're about on MTL from listening to us, but the live show is gonna be outta control. You cannot imagine how many clowns and elephants Bethany wants to have at the live show. We're still—we're trying to talk her down from like three to one, but we'll see.

Bethany Lockhart Johnson (00:44):

All I want is the t-shirt cannon. Because I used to go to these baseball games and they would have a t-shirt cannon. And I thought, I wanna operate a t-shirt cannon! So like, if I could be standing on stage aiming t-shirts at people who are jumping up and down requesting a t-shirt? I don't know. Doesn't that sound fun?



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (01:01):

Sounds awesome. High point of my college education was catching a t-shirt. No, it was—it was a burrito. It was a burrito cannon. But I think it was just a t-shirt cannon, but it was a burrito cannon. And I caught a burrito at a game and it was probably the most memorable moment of all of college education for me.

Bethany Lockhart Johnson (01:16):

Was the burrito still warm?

Dan Meyer (01:18):

Oh yeah. I think it got—like, I think it might've been warm at one point and then it got warmed back up through the muzzle velocity of the cannon. So it was a pretty great system they had going on there. <Laugh> Yeah. <Laugh> Anyway, I'm off topic, but, we're thrilled to—I'm thrilled to chat with you and we're thrilled to be listened to by you folks out there in MTL land. In the lounge itself. We got a fun show today.

Bethany Lockhart Johnson (01:40):

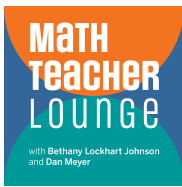
So if you listen to Episode One—which if you haven't, hope you go back and listen to it—if you listen to Season Four, Episode One, you're gonna hear—we asked Huon, KT, who is this delight of a joyful teacher. We asked her to talk to us about what's her math bio. And we want to ask all of our guests—like, I wanna go back and ask every single guest we've ever had to tell us their math bio.

Dan Meyer (02:06):

Yep.

Bethany Lockhart Johnson (02:06):

Because, while seemingly simple in nature, our students enter our math classroom already having had this relationship with math and these notions about their role in



**Math Teacher Lounge transcript**  
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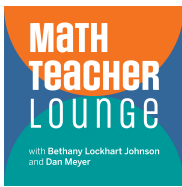
math or what they think about math. And it impacts our school year with them if we're a teacher. And it impacts our relationship with math as we move through our education and beyond. Right? And I I'm so excited about this question, 'cause I think it also ties into this theme for Season Four, which is joyful math, and diving into "When has math felt joyful? When has it not? Does it feel like—how do we think about how our math bio, our relationship with math, has evolved into a joyful or less joyful place?"

Dan Meyer (02:54):

I get it. And what's really key here, I think, is that teaching more than other professions is a generational profession. You know what I'm saying? Like, no one is like, "Well, you know, I sold insurance to you and now you're selling insurance to, you know, my grandkids; that's amazing!" But people are always posting photos when, like, you teach someone who then becomes a teacher later. Teaching is a generational sort of thing. So the kinds of joyful experiences that we offer or don't offer students now affect the experiences that students who haven't even been born yet will have, you know, some 20, 30 years later. That, to me, is a trip. And well-worth exploring, you know, how we got here, mathematically speaking.

Bethany Lockhart Johnson (03:39):

I remember a friend had sent me this image of an assignment that her son got that was asking for their Mathography. They wanted to know about their history of mathematics. And this was their first assignment. And this teacher, I would like to imagine, read them all and used it to inform conversations about students' relationship with math. And, you know, some of the questions they asked were thinking about whether you consider yourself, quote, unquote, "good at math." Like "what kind of experiences have you had? What do you like or dislike about math? What is, you know—what do you expect to learn in math this year?" Just asking students to actually pause and examine and reflect on their relationship and then also looking forward to, like, what kind of a classroom community do we wanna create? And I loved that assignment. And yeah, so today's episode Dan, guess what?



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (04:32):

What's going on? What's happening?

Bethany Lockhart Johnson (04:33):

I figured we should ask each other about our math bio.

Dan Meyer (04:39):

I think the people out there would love to know this about us. 'Cause you know, we're both awesome. But also what's really cool here is that like, I don't know this about you. Like not, not a lot. You know, the folks at Amplify, they kind of assembled me and Bethany together in the same way that record labels assembled pop boy bands, girl bands, that kind of thing, back in the day. You know, grabbing some stars from screen or film and just like throwing 'em together and saying, "All right, now you're here to perform together." And so it's just a really good moment for us to, like, settle back and just know who we've been working with for the last three seasons and change here. I love it.

Bethany Lockhart Johnson (05:15):

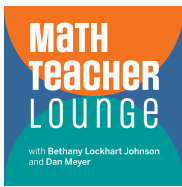
Well, I don't know. I don't actually agree with that, Dan. Because don't you remember? We knew each other beforehand. And while I would like to think of us as...oh, I'll say One Direction—well, no, One Direction is now defunct. Who's another band that got formed by one of those shows and is still together and still—

Dan Meyer (05:33):

BTS! K-Pop, you know! Let's go!

Bethany Lockhart Johnson (05:35):

K-pop. BTS.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (05:38):

Let's go, Bethany <laugh>.

Bethany Lockhart Johnson (05:39):

So can we incorporate some K-pop into the NCTM Math Teacher Lounge live episode? Don't answer now. Don't answer now. OK. So not only are we gonna share our math bios, but we want to encourage you listeners to share your math bio with somebody in your life. It could be a child in your life, maybe talking to your kiddo about what was it like. What was math like for you? It could be a student that you have. It could be a partner, a friend, a parent. I mean, the sky's the limit. Share your math bio. And most of all, share with us. We wanna hear about your math bio and you can share it with us at Twitter, at MTLShow, or in our Facebook group, Math Teacher Lounge.

Dan Meyer (06:26):

Stop on by, please. All right. I'm gonna just share like, just a couple of quick, signposts. Not the full bio. Gotta leave them wondering about something here. But here's a few quick highlights and lowlights of my math bio and how, maybe, it made me the teacher that I was and the educator I am. Is that cool?

Bethany Lockhart Johnson (06:44):

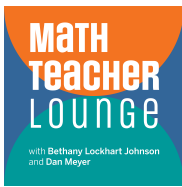
Wait, I didn't even, I didn't ask you yet.

Dan Meyer (06:46):

Ask me what?

Bethany Lockhart Johnson (06:47):

Hey, Dan!



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (06:49):

Is there like a magical word? Like, what's your math bio? <Laugh> Oh, go for it. No, no, that's right. They won't know what I'm talking about. Why is he talking about his math bio? Bethany—

Bethany Lockhart Johnson (06:57):

That whole lead-in that we just gave? They might not know.

Dan Meyer (07:00):

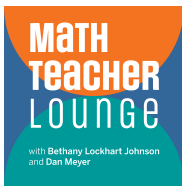
Yeah. We just talked about math bios for the last 20 minutes. But yeah, they might not know what we're—

Bethany Lockhart Johnson (07:04):

<laugh> So Dan, why don't you go first? 'Cause I know you were gonna ask me to go first, but why don't you go first? Dan? What's your math bio?

Dan Meyer (07:12):

Oh, wow. Well, thank you for the formal invitation to share my math bio, Bethany Lockhart Johnson. So, I'll just share—I just wanna share a couple items here, not the full history. Gotta leave 'em—leave a little mystery in there, you know what I'm saying? But here's a few highlights and lowlights, and I think what it means for me as an educator. So, I was homeschooled for eight years. That was big—did a lot of math learning on my own. Couple of lowlights from that, a lot of highlights, in terms of just like being able to, like, learn at my own rate and just jump on ahead and pursue different wacky things. But I tried to switch into public school in fourth grade and I lasted, um, four hours. I didn't even go to class. I enrolled and then it was like, boom, I was out of there. Because we went to the school; we met the teacher, saw the room, very nice person and place. But I got the homework assignment and the homework assignment was gibberish. I had no idea what to do and such was this feeling of just, like, despair and hopelessness, I was like, I cannot



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

be a part of this. I remember the assignment. It was about identifying scalene, isosceles, and equilateral triangles. I'll tell you this: I am quite good at that now. But at the time, like, I didn't know what those words meant. And you know, at that moment we had Encyclopedia Britannica, could not Google this or even Ask Jeeves or AltaVista this so well back then. It just—it was an entry moment of failure and realizing that so much of math is like a, kind of a social kind of construct. And if you're not part of that social circle, what can you do? So that was a bummer. Another bummer was eighth-grade math, learned it all by way of videotape. You know, put in the tape and watch—not gonna say the person's name and not this person's fault—but it was just like watching someone work on a whiteboard. Kind of a precursor to Khan Academy, kind of a drag. Went to high school—

Bethany Lockhart Johnson (09:02):

Wait, wait, wait, wait. We were—I'm not ready to jump to high school. Wait. Can you pause for just a second?

Dan Meyer (09:06):

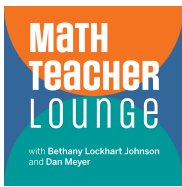
Yeah. Rock on.

Bethany Lockhart Johnson (09:07):

I just need you to go back to the triangle thing. So in that moment, what did that mean for you that you had had all these experiences with math and then you encounter math in a completely different sphere, a public school, and it did not have a connection or meaning to you because prior to that, it sounds like it was pretty positive. Right? Explore these things you're curious about; there's not, like, a level you need to stick with...

Dan Meyer (09:33):

Yep, yep. Yeah. I think that's right. Maybe it was a little bit of a classic, like, "Oh, I didn't have a growth mindset; my mindset was like, 'Oh, I'm good at math because I



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

am, you know, born that way," and all of a sudden, that identity was, you know, thrown into question. And, you know, my foundation was all of a sudden quite shaky. And yeah, that's—you know, I think I taught a lesson recently where I was like, "Hey, this whole thing with a less-than or equal-to sign and a greater-than or equal-to sign, like what those signs are: it's just, it's language. And if it's confusing to you, it's not because you're bad at math; it's 'cause language is oftentimes confusing 'cause people have to agree on it." So I dunno, that sort of thing is kind of filtered in, filtered back in periodically, some sympathy for like how a lot of math is like just socially agreed upon ways of working with, you know, numbers, shapes, patterns, that kind of thing.

Bethany Lockhart Johnson (10:20):

OK.

Dan Meyer (10:21):

Anyway.

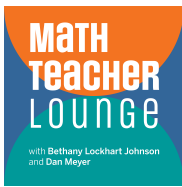
Bethany Lockhart Johnson (10:21):

OK. And in this home school—I have a lot of questions about that, but I'll stick to one—were you in a community of people that you talked about these math ideas with? Were you homeschooled solo? You have a sibling, so I think you were together, right?

Dan Meyer (10:39):

Yeah. Yeah. I've got a twin sister. So we were, you know, like, right on with each other the whole way through there. And yeah, so we had—but it wasn't, it wasn't like a—it was a lot of individual work, with my flavor of homeschooling.





**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (10:54):

OK. Got it. And the tapes—wait, before you go to high school, the tapes, the VHS tapes, which I'm just loving this image—

Dan Meyer (11:02):

Yeah.

Bethany Lockhart Johnson (11:02):

Was that a positive experience? Was that because that was an area of math that whoever was homeschooling you wasn't that comfortable with? Why was it that route for the tapes, and what was that? Was that joyful for you?

Dan Meyer (11:15):

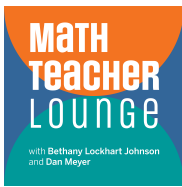
Yeah, definitely not joyful. Yeah, it was like, if you had questions, you couldn't really ask them of the VHS tape. It didn't work out so well in that way. And it was a lot of operational-type math. It was, you know—there was no give and take; it was all kind of take. From the video teacher. And yeah, I was doing that because my homeschool teacher, my mom, who is very smart in lots of areas, did not have the math knowledge or confidence, especially to help with math at eighth grade. And that was a big reason why, flash-forward to the next year, went to high school.

Bethany Lockhart Johnson (11:48):

Nice segue. OK.

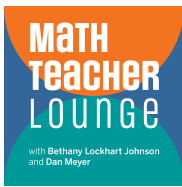
Dan Meyer (11:50):

<laugh> You caught up to high school...I encountered just like four years of just crazy-good, just bonkers-good math teachers who just really changed a lot for me. Especially, Mr. Bishop and Mr. Cavender, very cool folks who did a lot. And especially, I think Mr. Bishop and Cavender both modeled for me what curiosity from a knowledgeable adult looks like. Like someone who, you know, now I can say



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

to myself, "Oh, they were kind of like putting on an act of being very curious about answers they were hearing for the 2000th time from a student," let's say, but what a powerful experience that was for me to feel like, "Oh, wow, my thoughts are interesting to someone besides myself." I got like, maybe it's two real highlights that I'll just point to, from my math bio that made me the math teacher and person that I am. Let's see here. Maybe three, if you you'll indulge me. One is just like the idea that you could do math wherever you have your brain, a pencil and a paper. And so I remember like in high school, I was in church with my family and kind of a little bit bored of whatever's going on. And I just had the Bolton and I like drew a pentagon, a regular one, then a hexagon, a regular one, and kept on drawing, like adding sides to the shape. And it was like, it was becoming a circle. And, you know, I was able to take the area of each of those shapes and say, you know, "What happens as you send the number of sides to infinity?" And watch as the formula for area of a circle,  $\pi R^2$ , popped out. And it was kind of a literal religious experience, in that moment, just like, "Wow, like my brain's so cool and math is so cool and paper and pencil's so cool." And so there's that. Just that kind of experience was pretty awesome. And then I would just say like, I've had some really fantastic experiences with math in the world itself. Stuff like—let's see, this is gonna invite more questions from Bethany, probably, maybe I should avoid—I got, I have a Guinness—I have a Guinness world record that's almost 20 years old. This Guinness world record is—it's old enough to drive basically at this point. And almost old enough to drink. But like it was—it was a record for chaining the longest paper clip chain together in 24 hours. And the only way I was able to break that record was through mathematics. Where, like, I would be finishing a box of clips. And I would say to my buddy who was there, "I just finished a box of clips." And that person would type in the number of clips that I had just done. And then a mathematical formula that I had created would tell me how many—how long the chain was at that point. It was being rolled around a spool. And like, it's just like, wow. So math just made this possible. You know, math revealed that the record I was trying to beat was beatable, because I did the math on it. It was, like, thousands of feet long in 24 hours. And other folks might be like, "Oh, like, that's that's huge!" But me, I was like, "All right, let's divide this out. You know, divide by 24 hours in a day, divide



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

by 60 minutes an hour, 60 seconds in a minute. Oh, that's like one clip every four seconds. That's really slow." You know, think about that <counts aloud>, "Clip, two, three, four. Clip two, three..." It was just slow. So math helped me, you know, wreck that record. Which to my knowledge still still stands. Don't get any ideas, Math Teacher Lounge Folks! Is this news to you, Bethany? You haven't blinked in the last, like, five minutes. I'm curious if this is new.

Bethany Lockhart Johnson (15:20):

It is news to me. And I have so many questions. Because OK, if four seconds was slow, so then what was your like—so then I'm assuming a hundred clips per box? Like, what was the rate, you know, per box? How long did it take you to complete a box? What did this friend like? Did this friend stick with you for the whole 24 hours? Did you really do it for 24 hours? Or once you beat the record, did you rest? How did you account for biological function? Like, needs? Like a restroom?

Dan Meyer (15:51):

<Interrupting> Like what?

Bethany Lockhart Johnson (15:51):

Eating.

Dan Meyer (15:51):

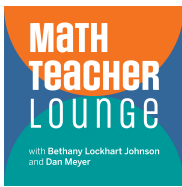
Like what, Bethany? OK.

Bethany Lockhart Johnson (15:52):

Um, Sleep.

Dan Meyer (15:55):

So yeah, maybe we dive into some of the specifics in a different time.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (15:59):  
Just tell me one of 'em. Tell me one.

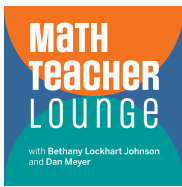
Dan Meyer (15:59):  
I'll just say. So as to discourage other Math Teacher Lounge listeners from taking this on—back off of the record, folks!—this was back in college, so I was a little more limber back then. But I did one—I think it was 1.8 seconds per clip. For an entire 24 hours. Just like, so just like think about it, would you? If you're gonna step to me on this one, just think about that, OK? And then, and then, you know, make an informed decision.

Bethany Lockhart Johnson (16:28):  
Wait. Wait, wait, I just wanna tell you one thing. I'm picturing somebody with a straw, and like, giving you water as you keep clipping. I'm picturing, like, music, I...

Dan Meyer (16:37):  
That's not far. That's not far. That's not far from—yeah.

Bethany Lockhart Johnson (16:40):  
So many questions! OK. Go on. Sorry, sorry, sorry. Go on. This is your bio.

Dan Meyer (16:44):  
We gotta, I gotta wrap this up. I wanna hear your bio. But, like, I would just say like this move to this sense that math is actually a thing that's useful for more than just a grade; it's useful for more than just, you know, the societal, you know, adulation that comes from being a math nerd. That kind of thing. And so that, I think that affected a lot of math teaching for me. And, if I gotta, like, summarize math teaching itself in a journey, it went from like, "Hey kids, aren't I awesome?" to, "Hey kids, isn't math awesome?" to "Hey kids, aren't you awesome?" And like that journey was facilitated by lots and lots of people, you know, a lot of personal



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

growth, but at this point, at one point I was like, "Hey, math can help you get records and whatnot. It's really useful." And now I'm like, "Wow, your brain's just doing just really interesting things. I can help you understand how interesting those things are, and maybe make them more interesting, or interesting in a different way, with some help here." Let's put a pin in that. That's the math bio.

Bethany Lockhart Johnson (17:50):

OK. So I have no doubt that if you ask someone in your life, listeners, for their math bio, that you will discover things about them that you never knew. Literally the questions that I have...I have so many question. And Dan is very good at, you know, bringing me back. Bring me back, like, come on, come on. But I just wanna say, overall, your journey seems pretty joyful. It seems pretty joyful. It seems pretty full of confidence. I don't wanna say "ego" in a negative way, but I wanna say you were buoyed by these experiences that allowed you to feel like math was a place for you to thrive.

Dan Meyer (18:36):

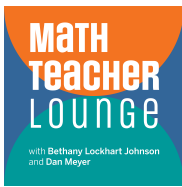
Right.

Bethany Lockhart Johnson (18:36):

Where you could try out things. You could try it out and just, "I could do that!" Right? Like...your relationship just felt very, like...you felt like you had autonomy, agency, perhaps much like you, you operate in this world. Dan, is that, is that right <laugh>?

Dan Meyer (18:54):

Yeah, I think it's fair to say. And without telling too much of her story, my twin sister with whom I share most things, including genetics, you know—she had a very different experience in math early on. She's brilliant. She's a doctor. And not, you know, the book kind of doctor that I am, but like a real, you know, medical doctor.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
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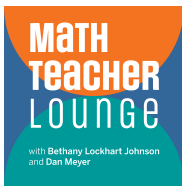
She's brilliant. But we were—we encountered different messages about who math was made for, early on in, you know, in our entire math learning. And she—we both digested the messages that we were sent, and took, you know, different, different paths because of them, for sure.

Bethany Lockhart Johnson (19:31):

Funny how that works. I thank you, Dan. I do. For in all sincerity, I appreciate you sharing that. And I think that it's exciting to hear how it influenced your teaching. It feels like you want to cultivate those experiences for your students. And I've been in the room when you've presented; I was in a room where you taught a class live. It felt like you were making space for the students to have these aha moments. And it feels like in your work at Desmos, and now Amplify, you're trying to create these products that allow folks to recreate these amazing math moments. Right? And that it's for everyone and that it's accessible and it can be very positive. I feel like I have this new perspective on kind of the energy you bring to your teaching. So thank you for sharing that.

Dan Meyer (20:24):

Yeah. Been a pleasure. Thanks for your questions here, Bethany. And it's been—it's been fun to reflect on it. And I do—I do feel very lucky in lots of ways. Privileged. Lucky. I know, like—I think the world has been set up for my success in lots of ways, as who I am. But I do just...yeah, I feel—I want more people to experience what it's like when you walk into a math classroom and it's like, "Hey, this place is for you. You have interesting thoughts about this. Let's get 'em out." So that's awesome. I would love to hear about you and how you...I mean, we have taught different kinds of kids. You know, I taught kids who I think were somewhat set in, they're a little bit more solid at secondary in who they are as a math learner. Like "I know who math is and who I am with math." And I'm really excited to hear what your math bio allowed you to do with students who were perhaps open to the idea that they are very mathematical or at least not yet closed off to those possibilities. So, yeah. What



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

are some of the high, the, you know, the high and low water marks of the making of Bethany Lockhart Johnson, math teacher? <Laugh>

Bethany Lockhart Johnson (21:24):

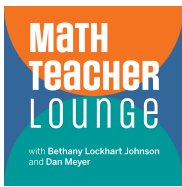
Thanks for asking, Dan. <Laugh> I've shared aspects of my math bio because I think it really informs the way that I talk to people about math and think about math. And I like to share it because I want folks to consider their own journey with math, as we like engage with problem-solving and sense-making and thinking about the students in our classroom. My dad is a math and computer science major. So he had a computer very early on. I wish he had invested in Apple early on when he had like one of the first Apple computers ever. And, sorry, dad, but it's true. I do wish you had done that.

Dan Meyer (22:10):

I'm sure he does too.

Bethany Lockhart Johnson (22:11):

Oh, he does. So math and computers and conversations about counting, you know, it felt like it was kind of just normal. Like it was around me. And I went to Montessori, which is a private school that—oh, they have some public Montessori—but it's very self-directed. And so we would have these kind of charts, these goals for the day that you explored. And so we would explore math in very, I don't know, very organic ways, with these natural materials. And I feel like I excelled at math, but it wasn't something that I was conscious of. It was just like, "Oh, well, yeah. Math, it's, you know, something we do." And then when I went to—when I left Montessori in fourth grade, I remember that year being a lot of like repetition. I was like, well, we did this. We covered this. And except for the mission project that we hadn't done, that was all new. And that's it. For another time I'll share about that. But <laugh> then, they actually, I was moved with a group of students to the fifth grade math class, 'cause we had already done the work that we were doing. And so, it wasn't that it felt like it came easily, but it did make sense. What we were doing



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

made sense. And then it all kind of changed. There was a lot of change in my family. There was, like, missed school time. And we moved and I went to a new middle school and I was in this environment with students who—it was like an accelerated program. And so I was in this environment with students who were pretty competitive with each other. And I remember going—and I was not from of a competitive environment; like Montessori is not competitive. It's not about that.

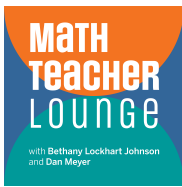
Dan Meyer (24:02):

Right. Right.

Bethany Lockhart Johnson (24:02):

It's—it was very strange to me that I would be competing against anyone, even competing against myself. And I, you know, knew how to set goals. But it was a different level of energy. And I felt like, because I wasn't competitive in that nature, I felt like that kind—I felt on the outside of a lot of the energy. Besides the regular, like, middle-school feeling outside of things. And I remember the first friend that I made. Hi, Susan! She had said to me, this was like maybe our second week of school, she's like, "Oh, at lunchtime, come with me to math club." And I was like, "OK." And I remember walking into that room and I had no idea what was going on. And so that was one of the first times where I was just like, "Whoa, I have absolutely no concept of what they're talking about or what." These are my peers. I felt very—it was very—it was strange. It was strange. I was like, "This doesn't feel like a space for me at all." When I think ordinarily I was kind of excited about the idea of going to math club at lunch, you know? And over middle school, I kind of just got progressively more and more behind. It started with missing some work and then missing more and then checking out. And, you know, the problem was that I really made it about myself. That, like, it wasn't something that I was then good at or could do. When really it was that well, pre-algebra, I was having a really hard time in like the rest of my life. And so I wasn't real present in that class. And so when I got to algebra, it didn't make a whole lot of sense. And then if I missed Monday, Tuesday, and Wednesday, well, Thursday is gonna be hard, you know? And, it just





**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

got progressively harder and harder. So I had this great idea that between eighth grade and ninth grade, I was going to take this accelerated geometry class. 'Cause that was the ninth grade class, it was geometry. And I would take it. It was like geometry in three weeks or something. So then when I entered high school, I would've gotten this like jumpstart. But I wish I had said, "Oh, I'll take this, and then in ninth grade I'll take geometry." So like I've already kind of gotten a preview of the material. But instead I went to the 10th grade math, which was like intermediate algebra, trigonometry. I had absolutely no clue what was going on. And I had a very, very difficult time and I wasn't ready for that class. But it was exacerbated by the fact that this teacher felt very free to let the freshmen in that class know that they shouldn't be in that class. That this class was for 10th graders.

Dan Meyer (26:49):

Oh wow. Oh, wow.

Bethany Lockhart Johnson (26:51):

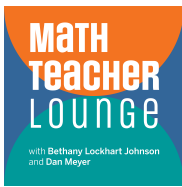
And we had a rather contentious relationship. And I will never forget that we were in the hallway, and he says to me, "You don't belong here." And I've talked to—I've talked to a girlfriend of mine about her experiences with this teacher and she has the fondest memories.

Dan Meyer (27:13):

Wow.

Bethany Lockhart Johnson (27:14):

She—in fact, almost everyone I've spoken with, you know, if we are talking about past teachers or, "Oh, what was that class like?" I mean, they just have these wonderful memories! And for me, my sense of like belonging was already so on a tight rope anyway, that to have this adult, this teacher, tell me, "You do not belong here," just crushed me. And in hindsight, I think he was saying like, "This class is too

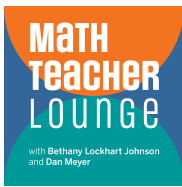


**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

hard for you." I mean, maybe. <Laugh> But all I heard was "You don't belong here." And I extrapolated it to connect to math and to anything having to do with math in general. And it just got worse and worse through high school in the world of math. My next math class was even—I had to repeat that class, and still didn't understand what was going on, and felt more out of place, and, you know, it's one of those things that I just kind of had started to accept that, I guess, math isn't for me. I guess I'm just not a math person. Or whatever these stories are that I started to create and build and find evidence for around me that was informing that this wasn't for me. And I had always done well in school. I was in, you know, accelerated classes. I felt like I was capable of problem solving. And yet in math, I just felt like I had all of this evidence saying that I didn't belong there. And so when I went to college, I took whatever two math classes were—you know, I was in performing arts and then I did ethnic studies as well. And I remember you had to take two math classes that were GEs. There were these classes that if you don't wanna deal with math, you go take those classes. And I was like, "Oh yeah, I'll take that. I'll take that." The gulf widened, you know? <Laugh> And I didn't feel like anxiety when I had to do things like balance my checkbook or navigate math in everyday spaces. It was just, it would never occur to me that I would like seek out opportunities to engage with math or think about it or talk about it.

Dan Meyer (29:35):

That is—yeah, that's just so wild, how, I don't know, like it's often, from the student's perspective, it is them in a vacuum with math, and the two of them interact and decide if, you know, if they're right for each other. But from the grown-up perspective, it's just, you know, it's a little bit clearer that your story with math was not just you in math, but you with, you know, various external things happening. With family, various teachers playing their different roles—sometimes, you know, really tragic and horrible roles—and then like the compounding mathematical debt that it feels like you were kind of building up, as challenges in one year didn't get resolved and moved into the next year and so on. And all that makes me wonder—it makes me, like really, really scared, first of all, because I would bet that your teacher might not even remember that moment, that for you is



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

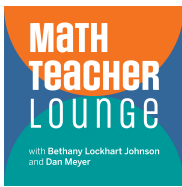
part of just a pivotal moment in your math story, and how many kids have I played—have I been a part of their story in that way and wouldn't even recall? You know what I'm saying? So that's a scary part. And then also I'm just wondering, like, how can we, how can we help kids who are in those moments recognize that, "Oh, this kid is like absent a bunch," and give them more resources to be successful rather than say, "Well, you just gotta try harder now." Those are things I'm wondering, hearing your story. Thank you for sharing that. I'd love to know more about how you then became a teacher and what all that did for you as you helped students.

Bethany Lockhart Johnson (31:06):

Well, but to answer what you were saying, it wasn't that I wasn't—I was always absent physically, but at least like mentally at that point, because it had become so difficult. It didn't make sense to me. So I was just really checked out in math class, you know? So in hindsight, you know, as a teacher, for sure I can look back, and especially hearing these stories and these experiences my friend had with this teacher and just like chalks up as one of like her most favorite teachers ever! And you know, he clearly did a great job for so many students. But for me, and I think for some people, they would've taken those challenges and, you know, it would have fortified them in a different way or something. But for me, I took it upon myself to mean certain things about myself and about my ability and what I was capable of. And so I think, I think in some ways, you know, yeah, it's all, it's all interconnected. You know, when your students walk in the door, they're not this—the things that are impacting them in their life are coming into the room with them. And I don't think we can take that for granted and think, "Well, if they just focus hard enough..."

Dan Meyer (32:21):

Yeah.



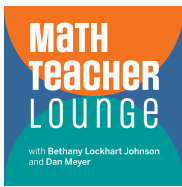
**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (32:23):

So let's go back to my love of Oprah. You know, Oprah talks about living your best life. And something I really appreciate about Oprah is that she encourages you to examine, like, sticking points, right? Like she doesn't just say, "Well, this...just pretend nothing ever happened, and everything's fine!" You know, she really talks about making time for reflection. And I kind of got mad that anytime I thought about math, or math schooling came up. Or, you know, whatever, any time that came up that I just felt UGH about it. And I felt like a failure. And I'm like, "You know what, what if I took a math class? And I'm an adult at this point. I've graduated. I have—I've left college. I have my degrees. But I said, "What if I took a math class?" So I went down to, the city college and I found out that you have to take this exam, like a placement exam. And I went and took the placement exam. And I remember it's one of the responsive tests where if you get it right, the next question's a little harder. And so I'm taking it, panicking, because it's getting more like...I just, you know. And I remember it placed me in like, whatever, Algebra Something, this class that was far more advanced than I thought I should be in. And I was like, there's been a mistake! You know, and I went to the counselor and said, you know, "I got these results, but I couldn't answer a lot of the questions on the test." She's like, "No, no, no, that's how it works." So I go take this class and the class was hard. And I decided that I was just gonna keep showing up. And every day before class, I kid you not, they had a little math...it was like a math center where you could go in and they had a bunch of tables and you'd sit at the table and you could sit and do your work or whatever. If you had a question, you walked up and put your name on a clipboard and then somebody would come and help you. So I did that, every single—like before every single class I would go in. I'd sit there. I'd do the work. I'd go. And I'd get help. Like somebody would walk over and you know, some kid for whom they're like this...you know, they're math—it might be you, Dan! It could be you! It could have been you! You know, would walk over and be like—

Dan Meyer (34:38):

Yeah, I was in Help like that. Naw, it's awesome. Love, love those people. Yeah.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (34:42):

And you know, I did it. And I did so well in the class. I did exceedingly well in the class. And I said—

Dan Meyer (34:50):

Take that! Take that, everything! Every other math experience!

Bethany Lockhart Johnson (34:53):

I said, what?

Dan Meyer (34:55):

Yeah!

Bethany Lockhart Johnson (34:55):

Wait a second.

Dan Meyer (34:56):

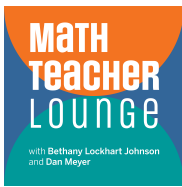
Yeah.

Bethany Lockhart Johnson (34:57):

And it was that I was present. I was not afraid to look at what didn't make sense. And if something didn't make sense, it didn't mean there was something wrong with me. Whaaaaat?

Dan Meyer (35:10):

Yeah. Yeah.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (35:10):

So I was just in such a different space. And then I took another math class and that class was even harder. And I did the same thing where I went to the little lab and, you know, and it just buoyed me. And it made me realize that, like, this story, that my experience with it was very powerful and that was a real lived experience, but that it didn't have to define my relationship with math. But then! I decided I wanted to go back to school to become a classroom teacher. And I totally—this was a couple years after that math class experience. So now, you know, I'm healing my relationship with math through basic positive experiences, da, da, da, you know, doing other work. But fast-forward, for a whole number of reasons, decided to become a classroom teacher. And I freaked out. All of my—like, I'm studying for the GRE and the CSET and all the things you have to the hoops you have to jump through to apply to the masters program and the credential program. And I freaked out. I was so close to quitting, Dan. Because I was convinced that the reason I couldn't be a classroom teacher is because I wasn't capable in math. Like I was—it was all that resurfaced. And even though I now had evidence to say something different, to the contrary, it was still so visceral. And I was so scared. But I passed that Math CSET.

Dan Meyer (36:47):

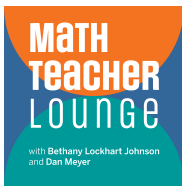
Get it.

Bethany Lockhart Johnson (36:47):

I did well enough on the GRE—

Bethany Lockhart Johnson (36:50):

Yes!



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Bethany Lockhart Johnson (36:50):

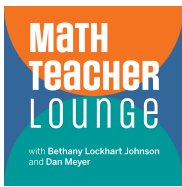
You know, I finished my credential. I worked really, really hard. I had to work so hard in my student placement, when I was student teaching for a fifth-grade class, 'cause I felt like, "Oh my God!" I mean, now I could do the mathematics, but I couldn't TEACH it to someone, you know? But I had amazing professors at UCI, and my math professors really like just—and my mentor teacher! shout out to Jennifer! shout out to Phil!—these amazing mentor teachers who just loved teaching and who loved—like you said, you have these teachers in your life who you got to see the way that they listened to students. They taught me about that love of listening to students. And then I fell in love with, you know, CGI, cognitively guided instruction, and started learning all about all of these educators who just wanna learn from students' thinking. And it was just so powerful. And I realize as a kindergarten teacher that I have this really special role in helping to create space for a positive school experience. Like we get to talk about—I talk about my students as mathematicians; they're writers; they're thinkers; they're problem-solvers. And I also want to make space for parents. Some of them, this is their first kid in kindergarten, and they brought all of their experiences, a lot of it negative, that they had had with mathematics. So I felt like it was such an exciting opportunity to help show parents how they could have conversations about math with their students. That also, I hope helped heal their own anxiety with mathematics.

Dan Meyer (38:41):

Right, right.

Bethany Lockhart Johnson (38:42):

Like, I've not even scratched the surface of math learning. But I just have such a changed perspective and relationship with math. And I just fell in love with the sense-making. And I fell in love with the journey of it. I still experience math anxiety about a wide variety of things, but I do love it. And I feel like there's a space for me in relationship with math. And that really excites me.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (39:09):

Yeah. Wow. Listen to that folks. We, we don't deserve her! Bethany Lockhart Johnson! She got some math game and could have gone off there and, you know, become an accountant or something. And she chose to hang with kids and their parents. That's so wild that you're like rehabbing parents and their self-conception about mathematics at the same time. I think that is so cool.

Bethany Lockhart Johnson (39:32):

Well, thanks Dan Meyer. I gotta tell you, I don't know when or if I've ever shared that much of my math story. So there is a certain amount of vulnerability there. But thanks for listening. And I'm glad that, you know—I think there's space for us to talk about these things that we care deeply about, but that can be really complicated.

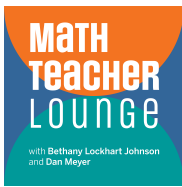
Dan Meyer (39:56):

Yes. Yes. And I love how you you've really sharpened the point on what I feel like I know in my brain, but not my body all the time: That individual teachers are huge. Like, individual teachers, and individual moments of teaching, are just not something to play with. You know, like that kid that's in fifth grade having a tough time, like there could be a month or a day-long period where all of a sudden, like, you're just like, "Oh yeah, I'm back in the mix; like, me and math are still buddies." And there's also like moments that you had, where like one casual word from a teacher can just really put a huge wedge between you and a discipline that needs and wants you and your intellect in it. That's a really powerful testimonial. Not just for math, but for teaching, your teaching bio.

Bethany Lockhart Johnson (40:43):

I agree with you. And I also, I also...you know, I think we can't put this—we are human. Teachers are human. And so I'm sure there's things I've said to students. Twenty-second story: a student stapled his finger in my class. <Laugh> And I remember holding his hand and saying, "Why did you do that?" And I wasn't yelling





**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

at him, but it was like, I am sure the panic in my face...like, that's what he's gonna remember about kindergarten. Right? <Laugh>.

Dan Meyer (41:19):

Yeah.

Bethany Lockhart Johnson (41:20):

That. He will remember that. He won't remember the really cool city project we did. He's gonna remember his teacher holding his hand, in his face: "Why did you do that?"

Dan Meyer (41:30):

Yeah. Yeah.

Bethany Lockhart Johnson (41:30):

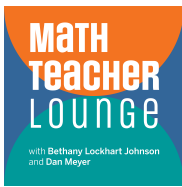
You know, so we're human. And yes, it was awful that that teacher said that to me. There were a thousand other ways that he could have said whatever it was he was thinking. And that did deeply wound me. But despite his influence—because teachers do have a lot of power and I think they need to examine that power, ongoing—it still doesn't have to define us. So I don't wanna put this pressure, like—

Bethany Lockhart Johnson (41:55):

Sure.

Bethany Lockhart Johnson (41:56):

"So never ever say anything negative!" You know, we're human.



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

Dan Meyer (42:00):

I feel like that kid is currently on some office-supply podcast talking about "your office-supply bio" and saying, "Let me tell you how I first got really freaked out by staples. Here's the deal: I only use paper clips. And here's why."

Bethany Lockhart Johnson (42:15):

"Here's why." But then—callback!—he's going to stumble upon THIS podcast and think, "And because I'm so adept with paper clips, I can beat that record!"

Dan Meyer (42:30):

Though—aaay! whoa! Settle down!

Bethany Lockhart Johnson (42:31):

BOOM.

Dan Meyer (42:31):

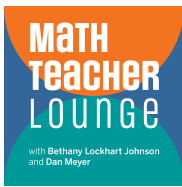
Don't get any ideas, kid. No way. Uh-uh. I don't like that at all. That's not what—that's not what I want to have happen here. No, thank you.

Bethany Lockhart Johnson (42:41):

Well, I'm spent, Dan. I need a nap.

Dan Meyer (42:45):

Yeah. I need a box of Kleenex. I need a nap. I need a—yeah, for sure, a baba. Uh-huh. Definitely. Hey, so look, I'm not expecting you folks out there in the lounge to kind of give us the same depth or breadth. You know, we are here, of course, for your entertainment. Feast on our stories and dramas. But I would love to know at some point, like, what are a few, a few moments that really came to define you mathematically? Came to influence you as a teacher? I think we would do really well



**Math Teacher Lounge transcript**  
**Season 4, Episode 2:**  
**Bethany and Dan share their math biographies**

for each other to understand that about all of our processes. So yeah, I would just toss in a plug in for Twitter, @MTLShow, or Facebook, Math Teacher Lounge; it would be fantastic to hear from you.

Bethany Lockhart Johnson (43:24):

Thanks so much for listening.

Dan Meyer (43:25):

Thanks, folks. Bye now.