

Marjorie Schaeffer (00:00):

I think the most important thing we know from literature right now is that high math-anxious parents, when they interact with their children, their children learn less math over the course of the school year.

Bethany Lockhart Johnson (00:12):

Welcome back to Math Teacher Lounge. I'm Bethany Lockhart Johnson.

Dan Meyer (00:15):

And I'm Dan Meyer.

Bethany Lockhart Johnson (00:16):

We're onto Episode 5, Dan, of our series on math anxiety. And I wanna say it feels so lovely to imagine all of these people out there doing work to help combat math anxiety. I dunno, it just makes me feel excited about the possibilities. This work is out there; it's happening! Kids and teachers and caregivers are being impacted by these conversations. Not just — I mean, I don't just mean the conversations we're having on Math Teacher Lounge, but I mean, that these researchers are doing. Like, yes, we can change this!

Dan Meyer (00:53):

This is great. Yeah. We have people who are extremely smart, who have dedicated their professional lives to studying math anxiety and resolving it. And each of them that we've chatted with — they share lots of ideas in common, but I've loved how they each have their own different flavor or take or area of emphasis on a problem that hits everybody everywhere. It's in your home, with kids and caregivers. It's in schools. It's in our places of teacher preparation and professional learning. Every place is a place where we can focus on resolving issues of math anxiety. It's exciting.

Bethany Lockhart Johnson (01:26):

Yeah, I feel like ... if there could be a course in — we all know that our teacher prep programs, in MOST teacher prep programs, there's not nearly enough math methods or time to cover <laugh> — it's like ready, set, go! And depending on who your mentor teacher is or what your math methods course ... I mean, it can totally shape the way that you are prepared or really not prepared for going out there to teach math! And so I love that we're having these conversations.

Dan Meyer (01:55):

What I love about today's conversation is, one, it's got a little bit of a technology flavor, so there's that. But I also love, it's got one of my favorite features about change, which is that it focuses on change to action, change to routine, rather than change to belief. Rather than saying like, "OK, everybody! Everybody stop thinking bad beliefs about math and transmitting them to your kids!" Instead, it says, "What we'll do is just, hey, we'll set that aside for a second and we're gonna do a certain thing every day and watch as those actions make your beliefs change." That to me is extremely cool. And I think it has a higher likelihood of success than just, like, me telling parents, "Hey, stop thinking these thoughts!"

Bethany Lockhart Johnson (02:37):

"Ready, set, stop being anxious!"

Dan Meyer (02:39):

Exactly. Exactly. So it's an exciting conversation we're gonna have here.

Bethany Lockhart Johnson (02:43):

Right. So it's not a, you know, "wave the wand and all of a sudden, you're not anxious about math anymore." But these incremental changes, these incremental conversations, this validation, can really, really impact change. I'm with you on it, Dan. I hear what you're saying.

Dan Meyer (03:01):

To help us talk through all of these ideas and more, we're joined by Dr. Marjorie Schaeffer, Assistant Professor of Psychology at St. Mary's College in Indiana.

Bethany Lockhart Johnson (03:10):

Enjoy. <Jaunty music> So, yes, Dan, we are so excited to welcome Marjorie Schaeffer. She's Assistant Professor of Psychology at St. Mary's College. Dr. Schaeffer, we're so excited you're here. Hello!

Marjorie Schaeffer (03:28):

Thank you so much for inviting me.

Dan Meyer (03:29):

Yeah. We are super-lucky to have had so many prolific and brilliant researchers about math anxiety on our show. You'll be no exception. And every time, we love to find out about how you came to study math anxiety, which winds up being a really interesting glimpse into your backstory bio. So tell us, what is the route by which you came toward studying math anxiety?

Marjorie Schaeffer (03:51):

Oh, I love that question. I'm really interested in how the attitudes and beliefs of parents and teachers influence children, especially around math. And I actually became interested in this idea in college, when No Child Left Behind was actually first starting to be implemented in schools with high-stakes standardized testing. So much so that I actually did my thesis on this thinking about, "Do children understand the importance of high-stakes testing? Do they have anxiety around that idea?" And so that was really my first foray into the anxiety literature. And that was kind of the entry point into math anxiety for me.

Dan Meyer (04:28):

So you started by studying a very high-stakes assessment, like our students connecting with this. And the assessment is once per year. And classroom instruction is every day. So how did you move from the assessments to the everyday instruction?

Marjorie Schaeffer (04:44):

That's a great question. So, after college, I actually taught kindergarten. And so from that, I saw the day-to-day impact of instruction and the day-to-day impact of children's individual attitudes and beliefs. And so I really became interested in thinking about, "How do we understand why some children are really successful from the instruction happening in classrooms and why other children need a little bit more support?" And so math anxiety was one way for me to really think about the individual differences I saw in my kindergarten classroom.

Dan Meyer (05:18):

It feels like you headed ... you went farther upstream, is what it feels like. Where assessment ... there's like some kind of anxiety around assessment, let's say. And then you ventured farther up the stream to classroom instruction and then still farther into kids' homes. It seems like your research invokes a lot of curiosity about the sources of a kind of amorphous, flowing phenomenon called math anxiety. And I'd

love to hear a bit about what you know about how caregivers transfer, transmit — whatever the word is — math anxiety to their kids.

Marjorie Schaeffer (05:55):

For parents ... we think that the attitudes and beliefs of parents matter. And we see that for lots of areas, not just math anxiety. But I think math anxiety, we see that really clearly. And so, we can think about it both in terms of what kind of input parents provide. So, how do families talk about math with their children? What kind of support do they provide around homework? And those are ones that I think are a little obvious. But we can also think about the offhanded comments that parents say to children when they're talking about math generally. Right? So, we see lots of memes going around, talking about how hard math homework is. And so, I think when parents say offhanded comments like, "I'm not a math person," or "We're just bad at math," that communicates values to children. I think the most important thing we know from literature right now is that high math-anxious parents, when they interact with their children, their children learn less math over the course of the school year. And this specific mechanism by which that happens is still an area for a lot of research. And so some people think it's about input. So maybe if I'm math anxious, I'm avoiding math. And so, when I have an option to read a picture book that has math content, I focus on the colors instead. And so, my child is actually getting less math than other children. We can also think it's about these messages that are provided. So, when I talk about math, I send the message to my child, it's not for them, and therefore the child wants to engage in it less. And some of my work looks at things like expectations and values. So, thinking about, "Do math-anxious families actually value math less than other families unintentionally?" And so, we have some support for this idea that they expect less of their children. And so maybe when they struggle, they respond in different ways than a family who's lower in math anxiety.

Bethany Lockhart Johnson (07:53):

This is so fascinating to me. I also was a kindergarten teacher. And I remember a mom who just ... she had such like palpable math anxiety. And during one of our conversations, she was talking about these homework sessions with her daughter. And I may have mentioned this on the podcast before. But she was talking about how every night they would sit together and they would do all this math. They'd do, like, extra math together. And it always ended in tears. And despite her math anxiety, she didn't want her daughter to experience the math anxiety that she did. So she was trying to pile it on, so her daughter was more proficient and comfortable. And instead, it was perpetuating this anxiety about it. And so, it's a

phenomenon then, right? Even if a parent is saying, like you said, maybe completely unwilling, this mother was actually trying to do the opposite. She was trying to help, you know, imbue the love and comfort with math. Right?

Marjorie Schaeffer (09:01):

Absolutely. This is why I think in my research, it's really important that we find low-stakes, low-stress ways for high math-anxious families to do math. They absolutely can support their children in doing math. But they need a little support. We want it to be a fun, low-stakes environment, right? So maybe that's the connection back to high-stakes testing, that I want children to have fun math experiences.

Dan Meyer (09:28):

Yeah. This is challenging, because it feels like the more caregivers know about math anxiety, and its pernicious effects on students, and how easily transmitted it is, one could become quite anxious about math anxiety. And, you know, no one makes great decisions when they're anxious. So if I'm recalling our various episodes we've done, we've heard from people say, "Well, you need to validate students' math anxiety. This is not something to just ignore or brush past. But also, not validate it in a way that says, you know, 'This is OK and generational and inevitable.'" Which presents parents with a very thin path to follow, it seems like. So I love what you're saying about how we gotta just de-stress the whole process.

Bethany Lockhart Johnson (10:11):

You're avoiding the whole, "I wasn't a math person either" kind of thing. <laugh>

Dan Meyer (10:15):

Right, right, right. Yeah. So I'd love to know more. We're excited about the technology that you have studied and helped develop, presumably, called Bedtime Math, an app for caregivers. And I'd love to know more about what that is and what it offers parents who know enough about math to know that they don't want to transmit math anxiety to their children, but also want to support. So what does that offer them?

Marjorie Schaeffer (10:39):

So Bedtime Math is an app. It's freely available on iTunes or the Apple Store or Google Play. And what it's designed to do is to provide a nightly topical passage. So one of my favorites is the one about

Groundhogs Day. And so it talks a little bit about the history of Groundhogs Day, and then it asks math-related follow-up questions. So starting at a preschool level, going through late fifth grade. And it's really meant for parents to pick the one that meets their children where they are. And so the preschool-level question asks children to pretend to be a groundhog and walk to the left and walk to the right. So a skill that families might not think about as being math, but we actually think that IS part of understanding math. Understanding left and right directionality. And then the next question can ask questions like, "If it took the groundhog three seconds to climb out of the hole, and then two more seconds to see its shadow, how much time did it take all together?" So a simple addition problem, but it's phrased in a fun way. And so the hope is that for high math-anxious families, these interactions are fun and playful. They don't look like fights over homework. They're just conversations that families can have around topics that are naturally interesting to children. And our hope is that when families have lots of these positive low-stakes interactions, they actually can see that we can talk about math in unstressful ways. In lots of ways, right? We can also do this at the grocery store. We can also do this while we're cooking in the kitchen. It doesn't just have to be fights over homework.

Bethany Lockhart Johnson (12:14):

And I actually have the Bedtime Math — one of the Bedtime Math books. And I was so excited to find out that there's an app. And I think one of the things that I loved about the book is that these are invitations, right? They're exactly that. Low pressure <laugh>, and they're invitations to have a conversation. And if we were just to tell parents, "Oh, just count!" or, "Hey, just count wherever you go!" You know? No. It's, in a way, I think, like you said, it's retraining the parents on what math could look like. Like, "Oh, I didn't even think we could just kind of have this conversation and we're actually doing math together."

Marjorie Schaeffer (12:55):

Yes, absolutely. I absolutely agree. We want it to be fun and playful and not stressful. And we want it to also be things that are meaningful to children's lives. So these are topics children are interested in. It's not that we are using flashcards or making children practice math facts over and over again. These are things children should wanna do that can naturally fit into a child's routine. So almost all families read books before bed, and what we hope is that math can also be a part of the nighttime routine.

Dan Meyer (13:27):

There's something really subtle here going on that I just wanna name and ask a question about. First of all, it's cool that you started with studying high-stakes stuff and now you are developing low-stakes stuff. And I'm really curious what makes a thing low-stakes? Like, a few things I'm hearing from you is that there's, like ... I have a small child that I read literature to on a nightly basis. And I feel very anxiety-free doing that. And it's almost as though, because each of the — tasks is the wrong word for this, but experiences — involve some reading, it puts me, the parent, in a mode that is comfortable and familiar to me. I'm curious: Are there other, as you design, what, one per day for a year? All these different experiences. What are some of the principles that you lean on that help make a thing low-stakes for kids and for parents?

Marjorie Schaeffer (14:17):

Yeah, that's a great question. So one thing we wanted to be really intentional about is that our app doesn't look like a lot of traditional apps. There isn't noises that go off. You don't enter an answer. And so one of the things that we thought made it low-stakes is that while there is a right or wrong answer — there is a correct answer — we aren't giving children upsetting feedback. Instead, what we wanna encourage families to do is, if you struggle to remember how many seconds it took the groundhog to come out of the hole, you can work through that with a parent. So it doesn't feel like you're getting negative feedback; you're being told you're bad at math; you did it wrong. Instead, you're just getting natural support moving forward. And so that's one thing we wanted to be really intentional about, was that it wasn't going to be a negative experience for children. And we are trying to build on all of the positive interactions families are having around nightly book reading. So many ways this can look very similar. You get to read another story that's topical and hopefully interesting. And then do these little questions together. And so for a lot of families, their children don't actually really look at the question. It almost feels like the parent is just asking them on their own. Like, they just came up with it. They just wanted to know what would happen to the groundhog. If there were three more groundhogs? How many groundhogs would we have all together? Not like it's gonna be like homework or other parts.

Dan Meyer (15:38):

So my understanding is that there isn't a blank into which people type a number in, press "submit" for evaluation, receive the red X, the green check. That's a key part of the design here.

Marjorie Schaeffer (15:50):

Yes, absolutely. And for research purposes, we would've loved to know what families were saying. But we think it's really important that it's fun, interactive, that families are working together to get to the right answer, that it's not a test for children.

Bethany Lockhart Johnson (16:03):

In your research, when you were — maybe you could walk us through the study a little bit. But I'm also curious if you heard from parents that it was carrying over beyond the bedtime routine. Because I would imagine, if I am building these skills and reading these questions and learning that I could talk to my kid like this about math in a fun way, that's gonna happen then, like you said, when I'm in the grocery store. Or when I'm waiting in line for at the bank. Or whatever, you know? People go into banks now still, right?

Marjorie Schaeffer (16:35):

Yeah, absolutely. So in our study, we recruited almost 600 families and we randomly assigned them. So they had an equal chance of getting both our math app and what we call our control app. And that's really just a math app without the math. We think of it as a reading control app. And that's because we wanna make sure that families are having a similar experience, that it's not just that having high-quality, fun interactions with your child is actually impacting children's math achievement. And so what we then did is followed those children over the course of early elementary school. And so we worked with them in schools in the fall and spring of first, second, and third grade, really to look at their math learning. And so what we find is that children of high math-anxious adults, when they have the reading app, so what we think of as what's happening in the real world, we see that really classic gap between children of high math-anxious adults and children of low math-anxious adults. So if you have a high math-anxious parent, you're learning about three months less math over the course of first grade. But for children who receive this math app, we see this gap as closed. Those children look no different than a low math-anxious parent. And so that's leading us to think that we've helped families talk about math in fundamentally different ways. We did a little bit of just talking to families to see a little bit about what might be going on. And a lot of families do report exactly what you're describing, where they say this did help them talk about math in different ways they were doing it other times.

Dan Meyer (18:10):

That's a really extraordinary study design. I don't know ... I love that you folks gave the control group not nothing. Like it's possible that just parents and kids bonding over a thing regularly would be enough to

provoke some kind of academic gain. But you gave the control group a thing that had them interacting socially, bonding, and still this large common gap between high-anxious and low-anxious parents, their kids shrunk together. Is that what I'm gathering here?

Marjorie Schaeffer (18:41):

Yeah, absolutely. So we're basically seeing we can no longer, when we look at children's data, say that parents' math anxiety explains individual differences. So these children look really similar. They're learning more than children who has a high math-anxious parent and just got our reading control app.

Dan Meyer (19:01):

just diving into the study a little bit more here, what is the time commitment? Or, did you guide parents to say, "All right, we're gonna do this do this delightful story about a badger for an hour"? Or did people do it for five minutes? And what was the time commitment, roughly, for people?

Marjorie Schaeffer (19:17):

So we tell families to do it however they see fit. Because it is an app, we are able to get some sense of how long, and we are talking about three to six minutes for many families. For a lot of families, they're reading a paragraph, the paragraph and a half, and then answering one or two questions. They're not going through every possible question. They're just doing a little bit, really meeting their kids where they are.

Dan Meyer (19:39):

Roughly how many times per week was that?

Marjorie Schaeffer (19:41):

So we asked families to do it as much as it fit. But we're seeing about two and a half on average in the first year. And so families are fitting it in a couple of nights a week. It's not every night.

Bethany Lockhart Johnson (19:52):

So what it sounds like you're saying is what really was powerful about this app is that it was the space and time and prompts between the caregiver and the child, that chance to really sit down and have some of these meaningful and positive math interactions. How did it shift those relationships?

Marjorie Schaeffer (20:12):

So one of the things I think that makes the app effective is the changing of expectations. After a year, families are really using the app a lot less. And I think that's OK, that they have found other ways to incorporate math into their lives. And we find that we don't see an impact on their math anxiety, that they aren't becoming less math anxious from this experience. Which I think makes sense, because they have had a lifetime of math anxiety. But we do see a change in parents' expectations and value of math. So they expect their children will be better at math, and they also report that math is more important in their children's lives. And so I think that's an important part of it, which is, we can change these values for families, even if we aren't able to change the math anxiety of the adults in children's lives.

Bethany Lockhart Johnson (21:01):

I want to for a second before — because I'm loving this idea of the app, and I'm excited to find out more ways to cultivate these conversations in my home and also share this with other folks. Because even folks who don't even maybe realize they have math anxiety ... like you said, so often it's unconscious. So often we're putting these little snippets into our everyday conversation, like, "Oh yeah, I'm not a math person." And we don't even realize how much is impacting our kiddos and ourselves, right? So I am really curious: What do you think ... in your research, what were some other takeaways that you feel like are really strategies that we can think about for combating math anxiety in general?

Marjorie Schaeffer (21:47):

So I'm particularly interested in thinking about how math-anxious adults can help tone down their anxiety so that they can have high-quality interactions with their children, that they interact with. And so one of the big takeaways for my research, I think, is that math-anxious families can help their children with math. They just need support. And so I think there are lots of ways for that support to look like. One, I think it can be an app, but I also think reading a little bit about math can be really helpful. So it's not new. So the first time you aren't thinking about some of these ideas is as your child has their homework open in front of you. And so you can process your own feelings separately before you have to do it with a child. I also think reminding parents that math is everywhere and that math is actually lots of things that we all love to do. Math isn't just calculus. Not that calculus isn't wonderful. But that math is measuring, math is counting ducks at the park. Math is talking about how many times did I go down this slide. And talking about math in this way, I think reminds families that they are great at that. That even if maybe they've had bad math experiences before, they can do math. Especially the way their preschool

or early childhood, early elementary school student needs them to. And I think that can then set the foundation for being really successful later.

Dan Meyer (23:13):

So is your research then, your subsequent studies, your line of inquiry, is moving more towards how to support parents, then? Is that what I'm hearing?

Marjorie Schaeffer (23:22):

Yeah. So I'm really interested in both understanding how the math anxiety of parents and teachers influences children. And so math anxiety is really common and we know that it's particularly common in early elementary school teachers. And so it's very likely that children are interacting with a highly math-anxious adult. And so I'm really interested in thinking about how we can support those individuals in doing it. And so both, I think, things like Bedtime Math, which provide fun, unscripted ways to do that, but I'm also interested in the teacher equivalent. So, thinking about whether having things like a math coach can help teachers have more positive experiences with math. So if you see someone else play math games with your students, can that help you do it as well?

Dan Meyer (24:09):

It makes me wonder a lot about an app for teachers or an app for parents, one that's not designed to be co-consumed with kids and their parents. But what that would look like ... yeah, that's really interesting.

Bethany Lockhart Johnson (24:21):

If we have a parent who, let's say they have a third grader, fourth grader, fifth grader, or a middle schooler, right? Outside of early education. And they say, "OK, but what do I do? I'm with my kiddo; I don't remember this math." And they're realizing that their anxiety may be influencing their kiddos' disposition of mathematics, Or maybe they're just in the midst of the battle <laugh>. What would you say to those folks, especially if it's math that maybe they're not comfortable with?

Marjorie Schaeffer (24:56):

One, I think we should like tone down the stress, right? Remind ourselves that it's homework and homework feels really high-stakes, but these other outcomes are really high-stakes too, right? And so I'm really interested in the idea that can we help parents feel more comfortable about math by watching

their own children teach it to them. So what's a concept that the fourth grader actually feels really good about? And can they remind their parent how to do it? Can, together, they problem-solve the math homework? And so it's not just on the parent to give the child the right answer. We know that's a recipe for communicating some negative things about math. But instead, help the parent-child pair figure it out together. So what are some resources we can do? Can we look it up on the internet together? Can we write an email to the teacher together? Can we think about what are other problems that maybe we know how to do, and therefore we can use that same model here? So I want parents to feel like they are not solely responsible for it. That they can help figure it out with their child together. And so it's a fun interaction.

Bethany Lockhart Johnson (26:02):

I love that. I love that.

Dan Meyer (26:03):

Yeah. Yeah. That's wonderful. Yeah. A conviction that I have, and I think it's true, is that any math that we're learning at middle school, the attraction can be dialed down to a degree that a very small child, or a parent who has a very small child's understanding of math, can appreciate. So instead of calculation, estimation. Instead of proof, just make a claim about something. And it makes me wonder about a companion to the work that's happening in schools that parents feel inadequate to support, that students might not want to teach their parents. But which they could both, on a daily basis, say, "Here's a way we can engage in this at a level that is comfortable to both of us." Just dreaming out loud here. No question asked. No response needed. I just love your work. And made me wonder about that. Can you let me know your thoughts about technology? It is very rare that we have someone on the call who is an academic and very well-versed in research, but who also is published not just in papers and textbooks, but also in digital media. It's consumed by lots of people. So I am trusting that you have opinions about how math looks in technology. And I wonder if you'd offer some thoughts about how it goes, right? How it goes wrong from your own eyes.

Marjorie Schaeffer (27:14):

OK. That's a great question. I think that we need more research. I first wanna say that I think that technology has really exploded in the last few years. How children have access to technology and screen times has really changed. And what we need is high-quality research happening. That said, I think that all

of the things we know from child-development research still apply to technology. And so we know that children learn best when they are engaging in interactions with their parents. And so when families can use technology together, or at least can talk about what's happening, it can be really effective. I also think technology, especially math apps, are best at teaching concrete skills with very clear answers. So I think practicing math facts is a great use of technology. So I love that Sushi math app where you solve multiplication problems and then get to quickly pull the sushi off the cart, right? But for higher-level questions, where we're thinking about word problems or where what we're helping to teach students is complex thinking, apps have a harder time doing that. Because students can often figure out the answer without engaging in the thinking that we are hoping that they'll learn. And so I think technology absolutely has a piece. I think technology is helpful for parents. I think the logistics of helping parents live their lives is a good reason to use technology. But I think we need to be conscious of what it's replacing. And so I think a world in which we think fourth graders can learn math only from apps is not realistic. But absolutely apps can be a great supplement to what's already happening in the classroom.

Dan Meyer (28:56):

Yeah, that's super-helpful. We have done a lot of work in digital curriculum here at Amplify, and often face the question on a daily basis, "Should this math be digital or on paper? Should we have the students stand up and talk or type something?" And those decisions are way too crucial and way more sensitive than a lot of the app-based education gives credit to. So appreciate your perspective there.

Marjorie Schaeffer (29:22):

OK. And I don't think there's one answer, or one answer for all classrooms. I think it's like always a balancing act. I do think that one of the reasons our work is successful is because the parent-child interaction. And we want parents to learn from these experiences. And I think the same thing is true for for teachers.

Bethany Lockhart Johnson (29:41):

Dr. Schaeffer, thank you so much for being with us today and for sharing about your research, and again, for inviting us to reconsider ways that we can develop a more positive relationship with math. And that parent or caregiver or teacher relationship with a child, we're seeing just how incredibly impactful that is. And I really appreciate your work and your voice on this. Thank you so much for your time.

Dan Meyer (30:07):

Thank you.

Marjorie Schaeffer (30:08):

Thank you for having me.

Bethany Lockhart Johnson (30:12):

Thank you again, Dr. Schaeffer, and thank you all for listening to our conversation. You can check out the show notes for more on Dr. Schaeffer's work and to see a link to the app that we shared about Bedtime Math.

Dan Meyer (30:25):

Please keep in touch with us on Facebook at Math Teacher Lounge Community, and on Twitter at MTLShow.

Bethany Lockhart Johnson (30:32):

We would love to hear ... you've been listening to this series; we're dipping our toe into all these aspects of math anxiety. Is there something that you're still wondering about? Something you wanna share about your own story with math anxiety?

Dan Meyer (30:43):

And if you haven't already, if this is your first exposure to the Math Teacher Lounge podcast, please subscribe to Math Teacher Lounge, wherever you get your fine podcast products. And if you like what you're hearing, please rate us! Leave us a review. You'll help more listeners find the show.

Bethany Lockhart Johnson (31:01):

And let a friend know. But you know, it's, it's nice and cozy here in the Lounge, right? There's no pressure. We're hanging out. It's all about learning. We're learning together. We're glad you're here and we want others in your community to join us in the Lounge as well. You can find more information on all of Amplify's shows at our podcast hub. Go to amplify.com/hub. Next time on Math Teacher Lounge, we're gonna be chatting about where we are today that we weren't a few months ago in this topic.

Dan Meyer (31:31):

We'll be chatting about this last series about math anxiety, and trading our favorite insights and observations from the run of the season.

Bethany Lockhart Johnson (31:41):

I just love this series, Dan. And thanks, all, for listening. We really appreciate having you in the Lounge.