

Discovering Dyscalculia

EPISODE #152

Narrator 0:00

This episode is brought to you by understood.org, a nonprofit dedicated to helping people who learn and think differently thrive.

Laura Jackson 0:07

Your brain is wired differently, and you understand numbers differently than most of your friends. Although you're not alone, because somewhere between three and 8% of the population, of course, she can't understand at that stage, what three to 8% is, so you're trying to draw a picture of maybe what that might look like.

Emily Kircher-Morris 0:27

In this episode dyscalculia. It's bubbling up more frequently in conversations around neurodiversity, but most people have no idea what it is. We're about to change that and to help, we've invited Laura Jackson, Laura is the author of "Discovering Dyscalculia", and we'll cover a lot of ground. What are the common symptoms? How is it diagnosed? How does it change as people get older? What can you do if you're an adult and you're thinking, wow, is this me? Straight ahead on Episode 152, Discovering Dyscalculia. I'm Emily Kircher-Morris. And this is the Neurodiversity Podcast.

intro 1:19

This is the Neurodiversity Podcast.

Emily Kircher-Morris 1:29

It's hard to believe, but this month, we are entering our sixth year of the Neurodiversity Podcast. Seriously, I really can't even believe that I'm saying that. And since it's the time of year where we all get a little introspective. We're thinking about the future, and thinking of ways we can get better at what we do. When we started, there were only about 500,000 podcasts. Today, that number just crossed 5 million. That's a huge number of choices. And for most of these five years, it's just been the two of us working hard trying to find ways to compete. while raising three twice exceptional kids, I might add. It's really been an amazing experience for us, and I know it sounds cliche, but we literally couldn't have done it without you. We're so grateful to have you sharing the podcast with your friends and colleagues and on social media. With your help, we're well within the top 1% of podcasts worldwide. And our audience is more than doubling in size every year. And we've hired a new staff member to join the movement, Krista Brown, so welcome aboard, Krista. And one more thing, before we move on, you may have noticed that we've introduced sponsors to the podcast, let me just say it wasn't an easy decision, and we waited a long time to do it. When we finally did, we sought out the right partners who truly had something to offer our audience. So if you would, when you hear something from one of them that interests you, please reach out to them. Tell them you heard their message here. It helps them know that their message is being heard. And it helps us keep growing. Thanks in advance for doing that. Okay, we'll bring on Laura Jackson in just a minute.

Narrator 3:24

On a previous episode of the Neurodiversity Podcast,

Promo 3:27

I think there is this kind of in our cultural DNA still, this idea that properly behaving, you know, children should be seen and not heard. I think there's kind of this mystical, unspoken idea that behavior management is appropriate and, and somehow valued. Somehow, with how the research was interpreted as successful, it became the mainstay of our education system. And when you look at the science, the neuroscience of resilience, and you lay that side by side to behavioral management, the two don't line up very well.

Narrator 4:09

That's episode 116. Find it in your favorite podcast app.

Emily Kircher-Morris 4:27

So I'm really excited to introduce today's guest to you Laura Jackson is an expert on a topic we have actually not yet covered on the podcast. She's the author of "Discovering Dyscalculia" and is going to share all about this little known disability. So Laura, I'm so happy to have you on the podcast.

Laura Jackson 4:45

Thank you. Thanks for having me.

Emily Kircher-Morris 4:47

Okay, first things first, is it dyscalculia or dyscalculia?

Laura Jackson 4:52

I know it is the worst, it is the worst word and you just feel terrible because these people already have this struggle. And it is the question I get everywhere, everywhere. And I remember in my, when I first found out about it, about six years ago, I went to a school meeting, and I was trying to figure out like, does my kid have this? And I think there were five of us in the room, and I think we were all saying it differently. I just say there's no shame in saying it wrong, because it is just the worst. But it's five syllables, and then the emphasis is on the cue in the middle. So kind of if you think about how we say dyslexia, and we kind of emphasize dyslexia. We say discal"cue", so dyscalculia

Emily Kircher-Morris 5:41

Dyscalculia. Honestly, for me, having the word part of it with the "cue," like that actually was really useful for me, and so I think that'll help. All right, now, let's get into the real, real stuff here. So I think a lot of our people have probably heard about dyscalculia, but they may not have a strong understanding of what it is. So how would you describe dyscalculia?

Laura Jackson 6:04

A lot of times, it'll come back on an evaluation that a student has a specific learning disability, with an impairment in mathematics, and they may define what mathematics is. So even though it's a learning disability, it impacts one's entire life. I think learning disability people think, oh, that just impacts you in school. So it's a brain difference, it's a difference that they can notice in infants. So it's a brain wiring difference that you're born with.

Emily Kircher-Morris 6:36

Your daughter has dyscalculia, which I'm sure has influenced your work in this area. And I found it interesting, as you were mentioning it, you said that you really just learned about this about six years ago. Yes, that really just goes to show how little information there is out there and how little understanding there is. So tell me a little bit about your experience, learning about it and kind of coming to where you are now.

Laura Jackson 6:59

Yeah, my daughter was in third grade, she's very bright, she loves school, she was doing really well, but she wasn't doing well in math. And I was starting to become curious about it by third grade, even though it had been going on for a while she had been receiving extra support and pulling out help, you know, teachers are encouraging us to do flashcards over the summer. We enrolled her in some extra fun math programs, and nothing was working. And the teachers were telling me she's working 10 times as hard as the other students in the class and not getting the material. So that was what I was hearing from school. And then at home, my daughter was in tears over flashcards, she was saying, mommy am I stupid, because when they would do the multiplication drills every Friday, she couldn't get past the one times tables sometimes. So I was starting to get kind of curious about what's going on, and at this point, I just didn't know anything about learning, disabilities, learning differences, it was all new to me.

Laura Jackson 8:04

And I had lunch with a friend who mentioned her math, learning disability. And I remember after she left, I thought what in the world is that? And so I googled it, and I found the understood.org website. And it wasn't as robust as it is now, but what was this like in 2017? But I read through the descriptions of dyscalculia, and I just was like, whoa, this fits my daughter to a tee like, everything we're struggling with. So that set us on course of then going to the school and saying, I think my kid has this and them saying, oh no your kids are doing great in school, but she was in other classes. They pushed it off, and it was a fight to get her tested, but when we did, we had her tested at school and when privately evaluated. At school, she qualified for help, because she was at least two years behind, and all the intervention so far had not helped. And then in the private evaluation, we found out she was 2e and dyscalculia.

Emily Kircher-Morris 9:11

So that kind of was a big turning point, I'm sure.

Laura Jackson 9:15

It was huge, because she could see that she wasn't grasping the material the same way as others. And then you know those questions of like, am I stupid? Because where else do you go when you're a kid and you see that you can't understand what everyone else is doing. And we immediately began using the language and talking with her about how your brain is wired differently, and you understand numbers differently than most of your friends. Although you're not alone, because somewhere between three and 8% of the population, of course she can't understand at that stage, what three to 8% is, so you're trying to draw a picture of maybe what that might look like. It was huge and it was huge for us too. It was nice to know what was going on. But then it was a real struggle to get information. I remember just Googling but I couldn't find hardly anything, there were hardly any books. There's a lot, surprisingly, a lot more now, although it's still just not very much, and I learned that they estimate that the research and resources on dyscalculia is about 30 years behind that of dyslexia, which we both know is not all that great right now. But there's some movement, you know, there's some curriculums, and

there's people coming out and sharing that they're dyslexic and dyscalculia is just the lesser known cousin, as they call it.

Emily Kircher-Morris 10:33

Yeah, kind of just beginning that journey. Dyslexia is described specifically as a difficulty in the brain with making the connection between written symbols that represent letters in the phonological sound that they make, so does dyscalculia have a similar meaning? What exactly is happening in the brain that is causing math to be difficult?

Laura Jackson 10:56

Yeah so, if you think of Dyslexia as a brain difference, or disability in struggle, in language, we say, math learning disability, but it's really a struggle with a sense of number, and quantity. Brian Butterworth is my favorite researcher, and he's out of University College London. And he read a really great book and in the last couple years "Dyscalculia: From Science to Education", I recommend it to all my parents. But he and one of his colleagues believe that it's a lack of understanding numbers as sets. So understanding the quantity and the grouping, and how it is a unit, you know, a student may be able to count 12345, but if asked to count backwards, or when asked to do addition, subtraction, where you're working with these units as sets or as a group, and how the group interacts with each other, that's where they get lost. So similar in that way, yeah, so it's basically if you think about the world, and how often numbers and quantities come up in our lives, and if you imagine not having a real sense of like, what is five, it would impact everything. And it's a hard thing to explain, because it's one of those things where for most people, you don't have to explain what five is like, specifically, tangibly, take several lessons on it, exploring all the different aspects of five. But if you're dyscalculic, those things don't just come to you. You don't just know that five is made of four and one, or that if you add one more to a group of five, you have six, like you just don't, that doesn't come like it does. For others.

Emily Kircher-Morris 12:39 It's not intuitive.

Laura Jackson 12:40 It's not intuitive, yeah.

Emily Kircher-Morris 12:41

I'm thinking about how back when I was in the classroom, and now as a parent, with kids in school, the way that we teach math is so different now than how we learned it. And I wonder, and I don't know, I wonder if dyscalculia happened back when we were younger, because we were just learning those algorithms, and it wasn't so much based on the number sense that I feel like most math curriculums now rely on in younger grades. Like do you think that maybe we're seeing it more or seeing it differently? Like it's coming to the surface differently?

Laura Jackson 13:12

Yeah. Oh, such a great question. I love that you think about it, like deeper, I was pondering these things while I'm cleaning the kitchen, it's very nerdy. My gut, from what I've been reading and researching, is just that students with dyscalculia were actually just labeled as dumb, stupid, incapable of learning math. They are the ones that end up having really negative views about themselves. Brian Butterworth shares a story about speaking with a convict and the reason he was in jail was because he was too ashamed that he didn't understand how to go to the counter with his purchases and know how much he owed, how to add up the money, and so he was in for theft. And so I think that I think actually, a lot of people have gotten into trouble, and also have just not had great prospects in life because of their dyscalculia.

Laura Jackson 14:08

I think it's becoming more well known now. Because we are kind of opening up to there's different ways about thinking about things and we're not all wired the same. And so just like your work with neurodiversity, I think that's why it's coming out. The teaching is complicated, now, you know, I have a 12 year old and 15 year old now and so watching how they do math, now, my youngest loves math and does really well at it. So that's an interesting, interesting to see both options here. Um, I think some things that are complicated are there's so much focus on memorization, and memorization is very difficult for dyscalculics. I think the amount that they're able to memorize is so small that you have to pare it down to just some few key essential things. And so that's difficult when so much is focused on just memorize these flashcards, just memorize these tables. I know one thing that's different from when we were learning math and now is now they want you to come up with all these different ways that it could be solved. And I think that's brilliant if you are not dyscalculic, you know, there's different ways of solving things.

Laura Jackson 15:17

I think some of the problem is that doesn't actually they don't actually leave room for how a dyscalculic problem would solve this problem. That's not one of the many ways. For example, my daughter, she works best with a whiteboard when she's doing her math, and not listing all the work previous because it's too overwhelming. And so, you know, finding a math teacher, that's okay that you don't show your work is tricky. Even though that works best for her, keeping a clear slate, actually very pictorial drawing pictures. So it can help but it also can be really overwhelming for dyscalculic that, not only can you just learn this one way, you actually have to learn it all five different ways. It's so it takes so much time to learn one way. Right five is mind boggling.

Emily Kircher-Morris 16:05

I don't remember who I was having this conversation with recently. But we were talking about this. And we were talking about how it's beneficial to have a variety of ways to solve a problem. But what's interesting is that when we assess them, we ask them to solve it in all five of those ways. Like it's not like you can go through and choose which one works best for you. We're gonna go through and assess and say, okay, well now solve it this way, and this way, and this way and this way. And you're right for a kid who struggles with math, having to sort through that. It's like, well, if I can get one and get the answer, isn't that a success?

Laura Jackson 16:38

That would be amazing. You know, if we said, here's the problem, and you solve it, how you are, you would think through it, but you're right, it's complicated.

Dave Morris 16:49

More than a minute.

Emily Kircher-Morris 16:51

If you're looking for more resources on ADHD, dyslexia, and other learning and thinking differences, visit understood.org. Understood is a nonprofit dedicated to helping people who learn and think differently, navigate challenges, gain confidence, and find a supportive community so they can thrive. Their resources are expert driven, and include a helpful range of products and tools, including articles and podcasts. You can find practical advice on topics like how to help kids with ADHD manage screen time, or how to build executive function skills. Understanding is trusted by educators, health care providers, and mental health professionals. Explore understood.org today to learn more.

Emily Kircher-Morris 17:36

I know for dyslexic brains, there's a measurable difference in how their brains function compared to neurotypical brains. For example, Broca's area in the brain is responsible for some language processes. So people who are dyslexic actually rely on that area more heavily. It's almost like overdeveloped when we do MRI scans, are there similar brain differences that we're aware of that impact dyscalculia?

Laura Jackson 18:00

That's a great question. In Brian Butterworths book, he does talk about how, yes, there's research that it's firing differently in, in the number of processing, I'm going to forget

which lobe it is that processes numbers, but it's firing differently. But he also explains that, like, there's not as much research on it. So some people will say it's firing this way, and others say it's firing that way, there isn't an agreed upon difference, they just know that it's different.

Emily Kircher-Morris 18:29

Which makes sense, I think, you know, to people who understand neurodiversity. And I think the allegory here, of course, is dyslexia, right? That's, that's the comparison that people often have a better understanding of.

Laura Jackson 18:40

So many of the families that I work with, it's very rare that I find a family who student just has dyscalculia, my daughter just has dyscalculia, and that has been a huge asset, because I can basically just study, the one thing, when you got five different things that are kind of different going on, it's more complicated. But that combination of dyslexia and dyscalculia is very common. And so I think it can be even hard to distinguish between the two, because sometimes there's similarities with like, directional confusion, so dyscalculic also have directional confusion left, right, north, south, up, down. Like for a dyslexic, you may think that they're just struggling in math, because they're having trouble reading the problems, they might also be struggling with how to solve the problem, like, even if they have, you know, can have it read to them or taking the material and other way, they also may have dyscalculia and be unable to figure out how am I going to work with these numbers to get an answer?

Emily Kircher-Morris 19:40

Are there other areas, like you mentioned, the directional confusion, like are there other areas that impact this other than just the number sense and those types of things were those kind of the primary areas?

Laura Jackson 19:52

So kind of a quick list would be where we talked about low memory, ability to memorize right? So as estimating amounts, like, you know, it's estimating jars or guessing how much something is. So it's back to like that quantity and numbers like, they have no idea. Anything involving money, if you imagine having to do calculations with money. Time, so really key these kids have a really hard time I say, kids, adults have a hard time reading an analog clock and understanding what it means. My daughter still will take several minutes to look at the clock. Not only that, but calculating the amount of time you have. So actually, it's my daughter's in high school now. And she said recently, she's been, she'll say to her friend, hey, what time is it? And what she really wants to know is how long do we have until the passing period, but she hasn't asked that, she

says, what time is it? So they tell her, they give her a time and a number, and then she says, oh, what time do we leave, and they give her another number. And then she said, she realizes she's standing there embarrassed, she didn't get the information she needed. If you tell her you have 20 minutes, she has a feeling for 20 minutes. And that's from some tools we've been using at home that helped her have a visual for a length of time.

Laura Jackson 21:06

But anyway, calculating lengths of time is very confusing for dyscalculic of all ages. Skip counting, being able to skip count by any number, because that's usually memorization, but also sequencing numbers. So if you start somewhere being able to count up or backwards from any middle point. Measurement, so in daily life cooking, oh, it's really hard in the kitchen with fractions and timing on things. A lot of dyscalculic adults struggle with driving not only the directions, but if you think about all the numbers that are happening, watching your speed, reading the number signs, how many miles until.

Emily Kircher-Morris 21:47

Your GPS says turn right and one quarter mile, it's like, well, how long is a quarter mile?

Laura Jackson 21:53

A lot of them have been telling me recently that the new changes on Google maps where it has a picture of what it's going to look like when you get there, it's super helpful, because, as you said, one quarter mile, not helpful. So we have a friend who would love to work with wood, but is afraid he'll just mess up on the measurements of building something and where to cut it and how to put it together. The main thing that kind of really sets dyscalculics apart is there's a word called and this is another word that's complicated to say I always thought it was subitize, and some people say subitize, I read subitize in the dictionary, so I'm gonna go with that. But it's the ability to see a quantity and instantly know how much there is. So a dyscalculic will literally look at the dice that has three dots on it, and in their mind's eye, they will count each dot. And so if you've ever played a dice game or a domino game with a dyscalculic, you'll notice that it takes a while and I didn't notice this till way later. But this isn't kind of an innate ability, most people have to see a quantity really up till six, we can visually see a quantity and just know, but you may not know that your child is actually counting each one.

Laura Jackson 21:53

I had a mom in my class, and she didn't realize that when her son set the table, when he looked over to see if there were enough glasses, he actually counted 1234. To see if there were enough glasses, he couldn't just look at the table and see four glasses. One of the screeners available test that ability to use appetite, because it's such a telltale sign of dyscalculia, if you can't instantly recognize and dyscalculia can learn. My daughter has learned something called dot patterns, and so she can now recognize small quantities, not all the time, but with much more accuracy than she did before. But it is complicated if those items are not grouped in the dot pattern that she recognizes, she kind of has to do it in her head.

Emily Kircher-Morris 23:53

Yeah, that's fascinating to think about all those different areas and you don't think about it until you really analyze how much that number sense really impacts so many areas of our lives. You mentioned that your daughter's learned some dot patterns, with dyslexia we have Orton Gillingham based methods, right and so there's all these different programs and protocols that you can use. What is there for dyscalculia?

Laura Jackson 24:20

I love those questions and all the dyscalculia Facebook groups, I'm in there like okay, what curriculum do I buy?

Emily Kircher-Morris 24:26

Yeah, fix the problem, please. I would like something that will fix the problem.

Laura Jackson 24:29

Yeah. The worst is always having to just say you know what, there is not a tried and true curriculum out there yet, we are not there. What we have found to be the most helpful has come out of the UK. My daughter had an IEP and public school, and we did that for fourth grade, fifth grade and started in sixth grade. And she didn't learn anything in math and the teacher was lovely, but she didn't have any resources, she didn't know what to do. So by the time we got to sixth grade, and we had started in at a new school, which was supposed to be really amazing public school, and it wasn't, and my daughter's anxiety came back, the stuff I saw coming home was not matching what I was reading and learning about could help this calculus. So at that point, I pulled my daughter from math class, and in our state, you can partially homeschool, so we can homeschool for math class, and then she went to school for the rest of the day. And I'm not a teacher, but I was determined to learn, and so we got some curriculum and some help out of the UK. There's a kind of a group of people, so I mentioned Brian Butterworth and Daurine Yale, some of the other names are Jane Emerson, Patricia Babte. And they've written some books on teaching the sense of numbers in a very hands-on way that pays attention to those gaps that they have. We started with Ronit Berg, she also works with them, using some things by Steve Chan. So all these, they're all coming out of the UK. And these were also the books I was reading, so they were the books that I was like, this makes so much sense.

Laura Jackson 26:10

And we just started in, we started learning math, like basically, I told my daughter, we're just going to relearn everything you should have learned in a way that makes sense to you. And so, you know, each day was kind of like, let's learn this together. We did that for three years. She's in high school this year in public high school, and we're navigating algebra. But it was amazing because shortly after starting to do that, she started really liking doing math, and I've never seen this girl like math her entire life, but it was clicking, it was making sense. I will always remember and maybe I tell this story too much, but we were building numbers with dot patterns and cuisenaire rods, they're wooden rods and each length signifies a certain number measured by a one is a one by one centimeter a two is so anyway, a physical representation of numbers. And we were building them, and I remember she got up to the teen numbers and she was like, Mom, how are we going to build these ones? Like, didn't know what she was going to do. And then she looked at me, she's like, there is a 10 in each of these teen numbers, like, she's 12 In sixth grade and she's just now

Emily Kircher-Morris 27:21

Making that connection.

Laura Jackson 27:22

Yeah, so um, that was pretty great so we just continued with those books and that curriculum over the pandemic hit us so, right, but that was fine because I was like, well, we can still access all this material at home. And then she was back in school, that kind of same setup where we did the partial thing, because nobody at the school knew how to teach her. And here we are at like really, you know, Seattle area schools like pretty good schools, and nobody had heard about it, no one knew how to teach for it. And it wasn't working. Daurnie Yale, and Byran Butterworth wrote this dyscalculia guidance book that's also available in the UK. And they kind of break down what is needed for your dyscalculic learner, like, what considerations need to be had, and then how do they learn best? And one of the things with hands-on learning is you're just engaging more parts of the brain, more sensory processing, so dyscalculic learning does involve hands-on learning, that's not the only thing. But it's one thing that also helps them to experience and take in another sense to make those connections and also helps them to develop that visual.

Laura Jackson 28:31

So my daughter when she does mental math, she does it differently than you or I. Maybe we were out in the yard, we're measuring for how much mulch we need on the flowerbeds. And so I said, what is 12 plus 15? And at first she's like, you know, and then I say, dot patterns, and she's like, oh, yeah, so then in her mind, she imagines a 12, which she imagines as an orange cuisenaire rod and a dot pattern of two, and 15, which she imagines is a dot pattern of five, like on a dice, and orange cuisenaire rod. And so in her mind, she can put those two orange cuisenaire rods together, and she can put that five and that two together. That's different, though, right? That's a different way of thinking about she's not stacking the numbers in her head. Another similarity is being really careful of the crazy language we use in math. And this trips up a lot of Dyslexics, too, right? Like we talked about carrying the one more borrowing, these terms that they really need to be flushed out if we're going to use them. And probably there's better language that would make more sense. So being really explicit and really explaining these ideas and what they are is helpful for anybody but an absolute must if you're dyscalculic.

Emily Kircher-Morris 29:52

Teachers really are, I think the boots on the ground. What are the things that you most wish that teachers understood about dyscalculia and like some basic support, because honestly, they might not even just help the kids who are dyscalculic.

Laura Jackson 30:07

It's it, it will help all the kids that are struggling. Those methods don't just help the dyscalculic, but they help any kid who's having some gap in what that number sense is. Yeah, teachers are hard because they are so in my opinion, underpaid, and overworked and maxed out in these huge classrooms. So I struggled with how to even just support my own child's teachers. One thing that would really help is early detection. So if we could start screening children in kindergarten in first grade for dyscalculia, that would be huge. And then if we could find ways to, there's several places that are teaching these methods in like online courses, and so if there was a way that schools could equip their teachers to be able to use some of these methods that will not only help the dyscalculics, at least 5% of their class, it would also help the other students if it could become another tool in their toolbox. And if they, you know, if they were supported by the schools and had that training, that would be great. And then my big passion is just awareness, so that the teachers who are not even the math teachers, when they view these symptoms happening, and students that they can be like, something's going on.

Emily Kircher-Morris 31:28

Right. The social studies teacher who's teaching history and has young kids has to wait for things in chronological order, or things like that.

Laura Jackson 31:34

History is a nightmare. My daughter brought home her middle school social studies test last year, and half of it was numbers and remembering years, dates. So more awareness, just like we do with dyslexia, where you see someone struggling to read, you kind of cue in like, you don't think, oh, they're they're dumb, you think I wonder if they have a language difficulty, or, you know, if they're dyslexic.

Emily Kircher-Morris 32:01

So here's my last question to you, as we wrap up.

Laura Jackson 32:05

Yes, because we could talk all day.

Emily Kircher-Morris 32:06

We could always talk all day. So if you were talking though, to a child, with dyscalculia, who's having just a really hard time, and they're feeling down on themselves, and like you mentioned, like they feel like they're dumb, or that they can't do math. What would you say to them? What words of encouragement would you really want them to hear?

Laura Jackson 32:25

I love that. I really encourage parents to kind of just not hide it, but talk with their students that, hey, your brain is wired differently and uniquely in this other way, and so your understanding of numbers is different. And you can understand numbers, but you need to be taught in a way that that makes sense for how you think about that. I also really love to emphasize the things that they're really good at, and make sure you have a holistic picture, there's so many times we just focus on the things that we think might be deficits or struggles. And we don't take into account the whole picture. So my daughter, actually, she just loves she, she loves art. She also loves reading and writing and creating stories, but she's an artist. And so she just started her own creative, she calls it creative dyscalculics, it's a blog space where students can post pictures of any creative project they're working on. And her whole mission is to empower I think she said something about what she said, you know, everyone looks at us and thinks what's wrong? And I want them to see what's amazing. So she's kind of just starting up her own little thing of just encouraging students to see what are those areas that they really excel at. And then connecting it with other dyscalculic students so that they also know they're not alone. So I always like to call it look for the gold I like to look for. Yeah, you have this way of dealing with numbers, but that doesn't define you. And yes, you need help in these certain areas, but you also need help to grow in these areas that you're thriving in. So let's, let's do it all to package, parenting package.

Emily Kircher-Morris 34:18

Laura Jackson, author of "Discovering Dyscalculia", thank you so much for your time.

Laura Jackson 34:25

Thank you, thanks for having me. And I love that you're doing this work, to raise awareness for Neurodiversity and 2e kids, so I love it.

Emily Kircher-Morris 34:37

Dyscalculia, dyscalculia I'm gonna get the hang of this someday, but I've been saying it wrong for an awfully long time. Just don't go back to any past episodes where I've mentioned it okay? We all know that education isn't a one size fits all environment, and kids with dyscalculia exist along a spectrum. Some who are most impacted we'll get noticed and get some support. Others who struggled but have cobbled together some compensatory skills might get missed. Awareness leads to advocacy and support leads to success. I'm hopeful that we continue to find new ways to support all of our neurodivergent kids. I'm Emily Kircher-Morris. I'll see you next time on the Neurodiversity Podcast.

Dave Morris 36:06

This episode has been brought to you by Understood Visit U.org for expert resources on ADHD, dyslexia and other learning and thinking differences. Thanks again to Laura Jackson, remember to find links to her work, including her book "Discovering Dyscalculia " on the episode page of neurodiversitypodcast.com. With the new year comes resolutions and one of mine is to make these show credits short and to the point so hosts Emily Kircher-Morris office manager Crista brown executive producer bottle washer me fire good thanks bye.

Dave Morris 37:19

This is a service of the Neurodiversity Alliance.