

# Danielle Thompson

**Rafael Otto:** [00:00:00] This is the Early Link Podcast. I'm your host Rafael Otto. Today, I have the pleasure of speaking with Danielle Thompson, who is the president on the board of directors for the Oregon branch of the International Dyslexia Association. She has been an educator for more than two decades and as a dyslexia screener and tutor, she has been on a journey to understand the impact of dyslexia on students and how educators can do more to help.

Danielle, welcome to the podcast.

**Danielle Thompson:** [00:00:25] Thank you. It's a pleasure to be here.

**Rafael Otto:** [00:00:26] Great to have you. So start us off by talking about dyslexia, what it is, how we define it.

**Danielle Thompson:** [00:00:32] All right. Well, dyslexia is a specific learning difference or a specific learning disability and it's neurobiological in origin. We can see the learning differences in the brain. And it's characterized by difficulties with accurate and/or fluent word recognition and poor spelling and poor decoding abilities.

And then those difficulties can typically result from a deficit in the phonological or the sound component of language. And it's often unexpected relative to other strengths that a person might show. And then secondary difficulties that can come along with dyslexia can be like, limited reading exposure, and then a lower vocabulary development and difficulties with comprehension.

Dyslexia occurs across like all backgrounds and all cultures all around the world, and it can be diagnosed. But many people have symptoms or characteristics of dyslexia and are not diagnosed, because it can range from mild to severe, to profound.

**Rafael Otto:** [00:01:40] What are some of the misconceptions about dyslexia and how it shows up in students?

**Danielle Thompson:** [00:01:45] The most common one I've heard is that people think that dyslexia is seeing things backwards and there's no, um, difficulty in terms of how a person with dyslexia sees the printed page or the printed screen. But the challenge for students with dyslexia or adults with dyslexia comes from the way that their brain processes language. And scientists can see from fMRIs there's a different neural signature for people with dyslexia when asked to do language related tasks or in general, perhaps a different brain organization. So they use different pathways to process language and it can take longer and it can make it more difficult. But seeing things backwards is a most common myth. The fact that it might occur more in one gender than the other is another myth. It's generally pretty equally found across genders.

**Rafael Otto:** [00:02:37] Okay.

**Danielle Thompson:** [00:02:38] And it's not for a lack of instruction or an early exposure to a print rich environment. It's not due to poor parenting.

**Rafael Otto:** [00:02:49] Right. This is a neuro-biological condition that, that people are dealing with, right?

**Danielle Thompson:** [00:02:53] Yes, and it's not related or tied to intelligence.

**Rafael Otto:** [00:02:57] Can it manifest later in life or is it typically something someone is born with?

**Danielle Thompson:** [00:03:03] You're born with your brain working in certain ways that scientists have later determined. If your brain sort of has this structure, or responds to speech sounds milliseconds slower, that those students go on to then have reading difficulties. But many people, if they're not severe enough, might mask that they have this learning difference or learning disability.

And so they may not be found in school right away. We may not recognize them as struggling enough. So they may sometimes, if they're not caught and tested early, they may be found or hit a wall at third or fourth grade when there's increased reading demands placed on them.

They maybe as an adult, struggle with like, how to process those longer essays that they have to write with college or high school. The further demands of reading and the time that it takes them, and what has worked for them in the past may not work for them as they go forward. So while you can definitely see risk factors and you can pay attention to weaknesses that people show at a very early age, it's also okay to test for dyslexia at an older age. Because regardless of where you are when you find this out, that information can be helpful for you to communicate to others and to learn more about how you learn best. And then what accommodations and assistive technology can help.

**Rafael Otto:** [00:04:27] Can you say a little bit more about that continuum of severity of some people who are able to mask the conditions, and kind of get through school or learning? They're able to do that. But some kids have a much more difficult time. So what does that continuum look like? What do you see?

**Danielle Thompson:** [00:04:43] Well, for someone who is severe that might flag our attention, we would notice that they have difficulty with speech or articulation at an early age. Difficulty recognizing their name in print. Like if they're in, let's say preschool, and they're in preschool maybe a full day at age three and age four, and their name is everywhere and they're exposed to it often. Typically a developing reader eventually, it doesn't take very many exposures to different aspects of language before they begin to then respond to those and store them in an automatic way. But a young child with dyslexia, risk factors or characteristics will have difficulty with sometimes articulation, recognizing letters, difficulty hearing or playing like, rhyming games, difficulties mapping letters to their sounds when they begin to learn that. And there's others, like in elementary school, difficulty learning the value of coins, difficulty with numbers. That can also be something that's dyslexia. And someone who is not that severe will begin to learn how to

read. But they may be pretty good at either guessing based on the context of a predictable reader, if they've been given one, or pictures if there are pictures there. But what you might notice is they'll get it if they hear it. But if they read, they might skip or omit small signal words like "a," "the," or "at." They may read a word correctly on one page, but not on another.

Or if they put in a substitution that makes sense for the story, sometimes people tend to overlook that and see that as "Oh, sure! But that still makes sense so it doesn't matter that you didn't just decode what was right in front of you." And they may keep a store of words that they know for quick and automatic retrieval. But as they get older in school, like I said, and then the reading demands increase in the vocabulary, increase the way that they have been doing their reading or writing or spelling isn't efficient. And they begin to reach a threshold or a wall that makes it difficult to move forward without more understanding about the way they learn best, and then a type of instruction that's very systematic and explicit.

So our students with dyslexia that are severe and we're sort of noticing at a young age, or let's say we haven't identified them yet, but they're on our radar as something's up. They may also quickly realize in a preschool classroom or kindergarten classroom, that it doesn't seem like the right place for them. So some of our students express at a very young age these feelings or behaviors that show that they don't want to be in school.

One mom reported that her son who's just out of first grade would chew holes in his shirt, throw up, not want to go to school. Other students will hide under the table or be runners, you know, and just want to... that fight or flight system kicks in where they see that people around them are catching on to things more quickly. And they really might be very, very lost and confused by what they're being asked to do and not understand that they have a learning difference.

It's very common. And that unless we talk about neurodiversity and the ways that our brains can be different, how would they know?

**Rafael Otto:** [00:07:56] Right. Talk about how prevalent it is. Because we're talking about a whole lot of kids and adults, but there's a whole lot of people who are affected by this.

**Danielle Thompson:** [00:08:05] The International Dyslexia Association, our fact sheet on dyslexia basics estimates that as many as 15 to 20% of the population have characteristics of dyslexia.

**Rafael Otto:** [00:08:18] That is an amazing number. I mean, that, that is a large... large number of people.

**Danielle Thompson:** [00:08:23] And so I looked up in Oregon we had around this last year, 560,000 kids enrolled in school from elementary to secondary. And if we took like 15% of that, that's about 84,000 Oregonian students, not to even count the adults or nationally with our school age population, that's about 8.5 million almost. People who have these characteristics where reading and writing and spelling may be difficult, and it can be unexpected. And it's a paradox in a sense that same person who can struggle to remember how to spell the difference between "there," "they're," and "their" can think and reason extremely well and can carry on an

intelligent conversation about all kinds of topics. So then teachers often, if they don't have enough information about dyslexia, might think that that bright verbal student will grow out of their struggle or learn when they're ready or at an older age, like at high school. We might think, "Well, they are not trying very hard because I know they can do this, just listen to them." You know, they know this information, they've got it. Why aren't they producing in the classroom?

**Rafael Otto:** [00:09:30] So I guess I have a couple of questions. But let's just start there, because you were talking about this idea that kids might be masking it or outgrowing it. But what does treatment look like and how effective can treatment be?

**Danielle Thompson:** [00:09:44] The treatment is educational. So while dyslexia is a neurobiological learning difference, the treatment is within the school system or how you're taught. And so early screening for risk, early treatment can pay off more quickly. But it's never too late to help someone with dyslexia learn to read and write and spell in a more efficient way. And we can see that through explicit teaching of the structure of language, and teaching the structure of our language from the simplest to the most complex in a way that is at the students rate. But also in a way that uses the different modalities of learning while they're being taught. The student might see something and move or manipulate their hands in a certain way and say it, related to the sounds or the letters.

So systematic, explicit, multi-modal instruction on the structure of language. That's the best type of intervention for our students with dyslexia, and students who struggle to read no matter the reason for their struggle. So if you know how to help a student with dyslexia learn how to read and write and spell better, you're highly equipped to help any struggling reader at any age. Because, for a highly trained teacher, the way that you teach reading doesn't change depending on the age of the student. The structure is the same, the scope and sequence, so to speak, is the same. You just change the interface of how you're teaching.

And then along with that, treatment would be naming it, talking more about, or having students learn about dyslexia and what that means, and where their strengths might lie in terms of their unique brain organization, and supporting and fostering those strengths. Identifying or hooking them up with individuals who have dyslexia that might be role models, whether that is a peer or an adult. Someone who perhaps has succeeded in their field, where the student might have a lot of curiosity or passion. That's very important. And then having accommodations like more time and/or assistive technology will be important throughout a person with dyslexia's life. So even if they've gotten intervention and they're able to read, write, and spell in a more efficient way, those accommodations will always be needed and necessary. And it's not unfair to them. It's continuing to keep the playing field level, rather than taking those supports or accommodations away once they've shown that they are successful. Because things still can take more time.

But one particular study done with early intervention for students who have dyslexia, they had a year worth of reading intervention in an explicit, systematic, structured way. The umbrella term for the treatment is "structured literacy." But after a year of reading intervention, this particular study by Joe Torgesen, students improved and were able to show through MRIs or fMRIs that

they switched over to using the efficient reading pathways on the left side of their brain. And that was for like, I think 90% of those students who were in that treatment group showed improvement to average or more levels in their reading abilities from this early intervention.

**Rafael Otto:** [00:13:04] Okay.

**Danielle Thompson:** [00:13:05] So it works. It matters. But so does empowering students, I think, into this type of thinker that they are. And we all then benefit from those conversations in terms of working in schools where this is our most common learning difference. In a class of 20, you could have up to, you know, five kids who might learn this way.

Or in our places of work, we have colleagues who learn this way. More conversations around dyslexia to normalize it and to have it not be hidden is beneficial to everyone.

**Rafael Otto:** [00:13:36] Talk about screening and how that looks considering that there are so many kids, thousands of kids in the state of Oregon, millions of kids across the country. What does screening look like within the school system or elsewhere?

**Danielle Thompson:** [00:13:49] Well, I'll start with a little bit of conversation about early screening even before school begins. And then I'll go into school screening. Early screening can really pay off in terms of the cost of like, untreated or undiagnosed dyslexia. Or let's say that we have students with dyslexia identified but they've never been taught to learn how to read, write and spell in a foundational, like, level that works best for them.

That economic impact later on our society can be quite large. Whether that's related to students dropping out of school and not entering in the workforce, or not going on to higher education. And then whatever jobs might come from that or parents having to pay for things like outside tutoring or therapy or testing. The Boston consulting group in partnership with UCSF dyslexia center in California recently published a white paper on the economic cost of, you know, not screening or acknowledging or learning more or addressing dyslexia in California.

And they put that cost at \$12 billion for this current year; or over 60 years, a trillion dollars in terms of that, the categories of state impact economic impact and then family impact. And that was particularly for California. So early screening is important and it's not too early to screen for risk factors of dyslexia at a young age. Like, let's say age three. And what that can look like is simply asking about family history of reading, writing, spelling struggles. That's the cheapest and most effective and most reliable indicator of risk. And so if that answer is yes, the type of intervention you might want to be looking for is things like, looking at speech language therapy or early pre-literacy robust instruction. So that's not teaching kids to read at that age. But that's supporting those like the letter identification, the sound awareness like phonological awareness skills, rhyming games, and things like that, that you would do with kids at that young age can be really helpful, as well as acknowledging that family risk is important to pay attention to.

So screening at age three or four could happen with questions in the doctor's offices, head start programs, daycares, preschools. If there's a developmental screener such as the Ages & Stages Questionnaire. They are adding a family history question around academic struggle to

their next version, so that's one way for screening. And then also paying attention to some specifics like if you used a particular screening tool, and there are some out there that are meant to be used at age three or four. One of them has been developed by some researchers from the University of Connecticut, and their goal is once it gets complete and standardized that it will be free.

And so they want to have it accessible to as many people, schools, organizations that would like to use it. And that tests for deficits in sound awareness or phonological awareness, that's where the weakness is for most people with dyslexia. Rapid automatized naming is another thing that you screen for. Verbal working memory and letter knowledge. So those are the things you look for at the youngest age of three or four. And we're partnering, our International Dyslexia Association Oregon branch is partnering with the Oregon Montessori Association with what we're calling the Dream Project to help conduct guidance around dyslexia, and recommending screening at three and four, and then again at the older ages as well.

**Rafael Otto:** [00:17:47] And targeting the workforce, professionals, providers, teachers in helping them become better versed in how to do those screenings. Is that the goal of the Dream Project?

**Danielle Thompson:** [00:17:57] It is. With more hands on deck in terms of if we can bring in, I know like the pediatrics and information and support and awareness there, as well as the childcare or teachers and the providers. Yes, we hope to have more indicators for parents. A safety net that we've woven that, that doesn't let kids slip through the cracks that have shown these risk factors already.

So if we... in some cases, teachers might have sort of marked or noticed things that showed to me, as a dyslexia screener, that that's a red flag. But through the Dream Project, we're hoping to compile all of those things that might be in different tools or instruments into one that can be used. That's pretty comprehensive.

**Rafael Otto:** [00:18:40] Right.

**Danielle Thompson:** [00:18:41] And then screening for dyslexic characteristics or dyslexia risk factors at school- age levels. Like let's say five, entering in kindergarten or first grade. Many states across the United States have dyslexia legislation that's been passed that they recommend early screening for risk factors, and then guidance on the best type of reading instruction. And many states across the United States have their legislation wording tied to the knowledge and practice standards for teachers of reading. And those knowledge and practice standards set forth what any teacher who teaches kids to read should know and be able to do.

So the screening would look like, again, things like letter sound, knowledge, phonological awareness, rapid naming. And then as they get into first grade, partway through first grade, it could be their oral reading fluency. So we've got these indicators, if they're weak in those areas or things like reading nonsense words. If they show risk in those areas, the right type of intervention or I guess it should even say before an intervention is needed, if schools can

examine their first layer of instruction to all students and make sure that that's robust and based on the science of how we learn how to read. That can be very helpful in sort of limiting who gets flagged from the outset, and then intervening with more intensive intervention in that scientifically based program of teaching. Reading in a structured systematic way can help our students hopefully before they even experience school failure, or the subsequent anxiety or depression that can go along with it.

**Rafael Otto:** [00:20:25] Say more about this idea that you mentioned earlier about normalizing neurodiversity in school settings, in classrooms. What does that look like in an ideal situation, and what will it take for us to get there?

**Danielle Thompson:** [00:20:37] Well, I'm trained as a secondary teacher. So I teach high school part-time and I see students in my senior English class that still struggle with reading and spelling, despite their best efforts over the years. Despite their parents and their teacher's best efforts. And I think somewhere along the way, I bet someone thought they would grow out of this because they are so bright or so verbal or, you know, just very compelling and charismatic in their interactions with you. So at a high school level, you know, just openly talking about the way that people's brains work and process different tasks for what they need to do. The different organizational patterns that scientists have been able to see in brains can be really, really helpful.

So I'm not an elementary school teacher, but I think at the youngest of ages, our elementary teachers, or even preschool teachers can figure out the most appropriate way to do that. And I don't know that I have that from a lived experience. But I think talking about how our brains work and learn and operate, and what our brains help us do, and how we grow our brains every day by coming into the classroom and learning.

But the fact that there are differences and we can't see them. So we need to talk about them, so that our student who might learn differently can know that there's a reason for that. That's not being stupid or slow.

**Rafael Otto:** [00:21:54] Right, right.

**Danielle Thompson:** [00:21:55] So there is a term universal design for learning, that's how that gets taken care of, I think in terms of acknowledging. because I maybe can't know yet who in my classroom, you know, is going to have this learning difference.

And then there are others in my classroom who will have other learning differences or neurobiological differences. I want to set my classroom up from the first day of school where I'm able to meet the needs of all my different learners, even if I haven't met them yet, so to speak.

So having different ways for kids to access information and take in materials or information, even if they don't have a diagnosis or paperwork behind their name; and then providing opportunities from a young age where kids might be able to choose or show best how they can relate what they know about something. There are a lot of technology tools that can be useful that aren't necessarily a straight screen. But there are pens that can scan print, you know, and

then read them aloud to students and having some of those available in every classroom, or a student might be able to choose for a certain task to use that.

But normalizing and setting your classroom up with a universal design in mind from the very beginning can be helpful.

**Rafael Otto:** [00:23:09] What does dyslexia look like in terms of understanding it and seeing how it manifests in a child who is, for example, an English language learner or a dual language learner?

**Danielle Thompson:** [00:23:22] More learning, I think, from many people in this area would be welcome. Because from my experience in conversations at a secondary level, you know, working with students who are learning English as a second or a third language, we tend to put all of the reason for their struggle on that. On just that they are learning a second or a third language.

But sometimes I encounter individuals who understand that there might be deficits in their first language that make it difficult to acquire, especially, the written or the grammar components of a second or a third language. And that we should find those underlying deficits and that neurological difference and begin to treat it.

So for a student who comes from maybe a country where Spanish was their first language and then they are acquiring English in Spanish, it may look like their phonological deficit may not be as weak. But when they are like, reading in their first language, if they were taught to read in their first language, their oral reading fluency might be very, very slow.

**Rafael Otto:** [00:24:28] Okay.

**Danielle Thompson:** [00:24:29] So depending on like, what the first language is, the deficits that you want to pay attention to might be subtly different. But overall, those early deficits that I mentioned in what we screen for, for kids, and I was thinking English, can also be looked for in the first language. Or there are researchers and you know, many languages and cultures across the country and the world who are studying these things. So while I don't know very much about that impact, say in Chinese, I know that there are researchers who always publish in the annals of dyslexia about these differences and how to help our students whose first language might not be alphabetic.

**Rafael Otto:** [00:25:14] Where would you point parents for resources to get help if they have children who have dyslexia or if they're interested in screening or those kinds of things? What are some resources for people to tap into?

**Danielle Thompson:** [00:25:29] I'd say for parents or for educators or any professional that's looking to learn more about dyslexia, you know, wearing a number of different hats. I would start with the International Dyslexia Association. And it's the largest oldest global organization dedicated to the study and the treatment of dyslexia. And the International Dyslexia Association has branches across the United States, 44. One in Ontario, Canada, and then 17 global



partners. So one of my friends lives in a different country, and so she searched out the global partner to the International Dyslexia Association in her home country. Because the goal of all the branches and the home office is to provide information and support to people with dyslexia, parents who are looking to support their children with dyslexia, teachers or educators or specialists who work with kids with dyslexia or professionals, or adults who are just thinking about it or finding out now, that this could be them. So the International Dyslexia Association's an excellent place to start. And in Oregon, the local branches, the Oregon branch of the IDA.

And we also serve the southwest Washington counties that are around that Vancouver area. What's very helpful on the International Dyslexia Association's websites and all the branches is that they have a BrowseAloud feature, which is an icon that you can click that will allow you to shift all the contents on the webpage into any language. And so if English is not your first language and you'd like to access the materials in a language that you're comfortable with, that you can take in the information more quickly, the BrowseAloudfeature makes all the information about dyslexia accessible to anyone.

There are very often steps for parents, like a flowchart for what parents can do if they think that they might suspect something like, what should they do first? There are provider directories linked to all the branches and different states where you can find a provider for testing or for tutoring.

There are often empowerment groups of students that meet and have fun together. But also talk about and share their stories around dyslexia, and help people learn more about dyslexia to demystify it. And also to help provide the best type of learning environment for them, but then celebrate their strengths as well.

And then there are adult networks of people who are adults with dyslexia, who just want to gather, and either talk about things in the workplace that could be different or supported. Or to ask questions about, "My workplace says I need to be tested again before I can have this type of audio reader or a different text-to-speech thing that I want to load on my computer. Can you help me with this? Do I really have to be tested again?" Dyslexia is lifelong.

So anyway, that's a really long explanation of how some of the things the International Dyslexia Association can help with for people who are looking.

**Rafael Otto:** [00:28:29] Great to know. There are so many resources out there that people can tap into.

**Danielle Thompson:** [00:28:34] And often all the branches will offer scholarships for people wanting to learn more. Or occasionally there'll be a scholarship for perhaps outside testing or to attend the IDA's international conference on reading literacy and learning each year. So there's opportunities, we hope, for everyone to find that information and support.

**Rafael Otto:** [00:28:55] Wonderful. Well, Danielle, Thank you so much for coming on the podcast today. It's been great talking with you, and I've learned so much about dyslexia through our conversations. So I appreciate it.

**Danielle Thompson:** [00:29:05] Thank you so much for having me and taking the time to ask these thoughtful questions. I appreciate it.