Glean Education

Glean Education's Research to Practice Podcast
Episode #15 - Tim Odegard
(Middle Tennessee State University)

Tim Odegard: The value of the science of reading in general is to remind us all, that all children, except for the very fewest fraction of them, are capable of learning. And so what's, behooving on us, is people who want to support educators who want to support schools, who work in schools and show up every day to, in our hearts, come in and address the needs of all of our students to remember that each of them has the capability. And so if they cannot read and spell, it is an exceptionality and it doesn't matter if they're black and brown, it doesn't matter if they're poor or if they have something called dyslexia. If they can't learn to read that is exceptional and we should address their needs and that's to teach them how.

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Jessica Hamman: I'm Jessica Hamman, founder of Glean Education and today we're thrilled to be talking to Tim Odegard, a professor of psychology who holds the Catherine Davis Murphy chair of excellence at the Middle Tennessee University, leading efforts of the Tennessee Center for the Study and Treatment of Dyslexia. Before joining the faculty at MTSU, he was director of research at Wilson Language Training. Today, we're chatting with Dr. Odegard about his study: Characteristics of Students Identified with Dyslexia Within the Context of State Legislation and his work in the field of dyslexia published in the journal of learning disabilities in April, 2020. So Tim, welcome to the podcast.

Tim Odegard: Thanks for having me, Jessica.

Jessica Hamman: Yeah, thanks for being here. This study was really interesting to me because it spoke about students identified with dyslexia within the

context of state laws and I haven't seen much research about this, and I'd love to hear more about the background behind the research study, why you decided to focus on this area, and what you thought you might find when you set out.

Tim Odegard: Well, the motivation really came from the fact that we've had great success as a society with advancing these dyslexia laws but we haven't really slowed down to ask ourselves what have been the impact of them. These laws are crafted with specific goals in mind and the first law in this area was enacted in 1985 in Texas and that was the first one in the nation and there was really just kind of Texas and then Mississippi doing some work in this area. But in the last eight to ten years, there's really been an uptick. So now the majority, or actually almost all of the states in the United States have some form of a law, but as you pointed out, very limited research has been published in this area. So, the real motivation was just to get a handle and get data to start having informed conversations about what are these laws doing? What are their intentions? Are they really having those intentions and even asking even more complex questions? Are these laws playing nicely with the current systems that are already in place like IDEA and other federal and other state policies?

Jessica Hamman: One of the tricky elements I imagine of studying policy like this, is that there are so many factors. Each state has very subtle differences to their guidelines or laws. So, how did you begin to wrap your head around who to select, to study and kind of how to make sense of it all?

Tim Odegard: Well, the selection process was guided by the state laws themselves, as you pointed out. So, this is really a follow up to an earlier publication that we had done looking at data in Texas and Arkansas.

Jessica Hamman: Okay.

Tim Odegard: We included those states in the original study because based off of state law that have been enacted in those states, the schools were mandated to report to the state capital, the department of EDS, their identification rate. So, for every child, they have to identify if they were receiving dyslexia services in the school, which mean that they've had a school based identification of characteristics of dyslexia since the publication of that original article. Tennessee, the state that I'm in, has also included and enacted, a law that requires that and now I believe Kentucky has as well, but we didn't have those data at that time. And I could be wrong about that, but my understanding is that Kentucky has as well, but now we have three states that have existing data that for every student in the state and a public school, they're required by state law to do that reporting.

Tim Odegard: One thing that schools are really good at, is following those types of requirements. So, there's actually mechanisms in place and those of course now are public data. So, in the introduction to this newest paper in JLD, we actually put updated reporting on those prevalence rates. So, the selection of the states was guided by that. Now, the reason why we selected the specific state that is included in the larger study in JLD, was because in addition to having that

reporting up to the state's level, the identification of each child in the state, the state that we used actually includes the universal screening data. So, the other aspect that you often find in dyslexia laws is they have to have some type of a universal screening process. In the state that we were getting the population from, it was K through two, mandatory screening for the characteristics of dyslexia in line with their multi tier systems will support RTI procedures.

Tim Odegard: And they now, all schools are reporting for every single child up to the state capital and this state, their universal screening data. We were supporting this state in actually an efficacy trial of K through two, statewide teacher training and as part of that, we wanted to be able to get impact from student level data. So my center, the Tennessee Center for the Studying and Treatment of Dyslexia entered into a partnership where we're actually supporting this state and looking at the efficacy of their teacher training initiative. And as a byproduct of that, we have data from the entire population of students in the state and through that, we've been engaging in a series of write ups to try to understand and ask kind of foundational, fundamental questions about what we can learn using universal screening. It was important because we don't know in our previous study, if screening was even taking place for any of the students, if the data was actually available to the schools.

Tim Odegard: And so in the most recent study, we know a foundational principle question, which is, are they actually universally screening the students, when they come to the decision of they do or do not have dyslexia and, or receive intervention in the schools based off of state law. So that, was a kind of a two part decision. One, I had state level data for each child in the state to determine if they were receiving

services because they'd been identified in the school based process of having characteristics of dyslexia or dyslexia. We have data for three states reported for that: Arkansas, Texas, and Tennessee. We went with one of those states because in addition to that, we had for the entire population of students in the state universal screening data that would inform us about their literacy skills and then we could link that to the school based decision if they had dyslexia or not.

Jessica Hamman: Okay, so first of all, just kind of a backup question were all these states, I suspect I know the answer, but were they all using one standardized universal screener or was that kind of all over the place as well? And was that significant to your study?

Tim Odegard: So that's a great question. It's actually, we're actually doing a follow up study now. We used, Istation data in our initial study, there were three universal screening instruments that were available in the state that we were using. They're actually now bringing on, because we still work very closely with this department of Ed and supporting this longitudinal study. They're actually bringing on a fourth universal screener as an option for the schools in the state.

Tim Odegard: We're now looking at the map data, which was another one of the screeners, which actually has a larger sample to see if we can replicate the findings of the JLD piece and also get at across study, if we see some variation. So, one of the things is what we are able to do is, is actually to take a larger sample now, look at the identification rates of characteristics of dyslexia, based off of Istation data versus map data and we'll be able to look at if there's a discrepancy in the

school based identification rates based off of schools using one of these screeners and then more importantly, we'll dig down and at ask, if we just look regardless of, if an identification or dyslexia is made, what's the sensitivity or what are the prevalence rates of kids struggling in areas that would be characteristics of dyslexia to begin with, even if they don't have that classification or dyslexia by their schools.

Jessica Hamman: Okay. So, in this study, what did you find concerning identification of students?

Tim Odegard: Well, if we just go back to those three states, Texas, Arkansas, and Tennessee, we continue to find an under-identification rate of children with dyslexia based off of what we know from past research to be the accepted prevalence rates.

Jessica Hamman: Prevalence rates for our listeners, who aren't familiar, are between 5 and 20% kind of hovering around the 17%.

Tim Odegard: Yep, that's right and as you're aware, some of your listeners may be aware, the variability in that comes based off of some of the things we were just highlighting, which is the type of sampling that you used, how the studies were conducted, what instruments were used, where those samples came from, and that can create variability in the prevalence rates of what we see as far as dyslexia. So, we find that the prevalence rate after several years of implementation of state law has moved up to being around 5% in Arkansas and Tennessee, as we

move across the grades in those states and we move them out of elementary though, they plummet and they go to close to zero. So, we know that in middle and high school, we're not finding children in those states with dyslexia any longer, even though they're still required to be finding them.

Tim Odegard: Also, one would not predict that we would see smaller rates of dyslexia in those grades than we would in lower grades. Texas has always struggled or continues to struggle with finding children with dyslexia and reporting them up to Austin. And they're still below 5%. Arkansas and Tennessee seem to be doing a bit better of a job if you consider finding more kids to be kind of your aim of your goal, which is kind of a low bar to set and really not necessarily the metric you'd want to use. So, that's kind of the first grounding principle that we found, kind of the finding that we found. And it replicates the earlier study that we had done using data from Texas and Arkansas, that we have an under-identification we're not quite there yet.

Jessica Hamman: Did you find a discrepancy in identification in different socioeconomic statuses in schools with more minorities students? Was there any discrepancies there worth noting?

Tim Odegard: So, when we move into the main body of the study, we're actually using the universal screening data. What we found was for children who were black and brown, our African American and Hispanics, they were half as likely even when they had behavioral characteristics of dyslexia on the universal screener to be called

dyslexic by their school based team relative to Caucasians. So, we did find a discrepancy between the ability for schools and the rate at which they identified children when they're black and brown.

Jessica Hamman: Were you able to extrapolate any thoughts about how to support increased identification in underserved populations, populations with more minority students?

Tim Odegard: Well, it's all corollary data, meaning it's correlational. So, we can't infer cause and effect however, we have to unpack the findings a little bit more to kind of get at root cause here. What we also found was schools that have more children who have the behavioral characteristics of dyslexia on the screener, if they can't read very well, their struggle with spelling, were less likely to identify children with dyslexia as well. Also, poorer schools were less likely to identify children with dyslexia. So, what we're fighting is, is constellation of risk factors that go along with institutional poverty, institutional racism, underfunding. The sustaining teachers potentially could be drivers that are causing us to have schools that are not meeting the needs of a lot of children in the area of literacy and as a result they're not able to find those who are struggling due to neuro biological differences that we would deem as dyslexic.

Jessica Hamman: Why does it matter if students are identified with dyslexia?

Tim Odegard: We often find that people will get exhausted and feel like they've done everything in their power to help a child and so they'll start to

conclude that it must be the child who can't learn. It must be the child who can't read, or it must be other factors. It must be their families not doing what they should be doing at home. It must be a community that's not supporting a child. So, often we look for solutions that start to turn to outside the school and outside of the teacher control. The reality of a construct like dyslexia, is it helps to remind us that every child is capable of learning to read, unless they have some pervasive, very debilitating developmental disabilities. So, I feel that the importance of a construct like dyslexia is to remind us that yes, even those of us who have neuro biological differences and how we process language, even we and our offspring, because it's genetic, can learn to read.

Tim Odegard: And yes, there are specific ways that have been validated through empirical research for decades that are beneficial to us. They happen to be more similar to effective practices that would be needed for all children and children who need to catch up, regardless of the reasons. It's the response rate and the rate at which we respond to that instruction, which is most telling and differentiating those of us who may have neuro biological differences.

Jessica Hamman: Okay.

Tim Odegard: So, I view the value of dyslexia. Also, the value of the science of reading in general is to remind us all, that all children, except for the very fewest fraction of them are capable of learning. And so what's, behooving on us is people who want to support educators who want to support schools, who work in schools and show up every

day, to in our hearts, come in and address the needs of all of our students to remember that each of them has the capability and so if they cannot read and spell, it is an exceptionality and it doesn't matter if they're black and brown, it doesn't matter if they're poor or if they have something called dyslexia. If they can't learn to read that is exceptional and we should address their needs and that's to teach them how

Jessica Hamman: Right and so that gets me to what you found and the classroom implications of the studies, if you were able to arrive at any.

Tim Odegard: So, the implications that pushes us to ask a larger question, that in the general education population of students in second grade, in this state and about 8,000 kids, a little more, 32% of them couldn't read and spell worth a darn on the universal screener. So, if the highest prevalence rate that most researchers feel even somewhat comfortable with is like 17.5, maybe even 20, why do we have so many more children in our schools in this very large sample struggling? And the foundational principal is probably that they're not getting the instruction that they need to begin with. And I think that the debate on what we need to do about addressing the foundational skills of reading and spelling is long since gone, that we're past that.

Tim Odegard: We've moved on now to ask, how do we support schools? How do administrators get the training they need to understand what they should be doing and where they should putting their dollars into curriculum and professional development? How do we support the

team teachers in the classroom and getting that and how do we put the systems in place so that data that's being collected is actually in the hands of teachers who understand what to do, who have the resources and training and materials and time and the space that they need to impact their children to differentiate instruction and intensify it when needing and enrich it always so that we get the background knowledge, vocabulary, and comprehension, but it's hard to comprehend text when you can't read it.

Jessica Hamman: Right. It makes me think of the importance of all the cogs in the wheel that are spinning when we're trying to support students. You mentioned so many elements of that instruction, school systems assessment, curriculum is key too and I noticed from your bio that you were head of research at Wilson Language System, which is a wonderful curriculum for explicit structured literacy instruction. What was your role there? And can you tell us a little bit about how research, plays a role in creating that particular curriculum and why getting research based curriculums are important and how does that tie in?

Tim Odegard: Like many other curriculums, the Wilson Reading System Foundations Just Words are research based, which means that the developers and the authors of that synthesized and understood the research that's come out of what many people now call the science of reading and they use that to inform the methods and methodology in areas that they instructed with those. So, it's research based. It's also empirically validated in many instances. So, let's just take the Wilson Reading System, for example. If you were to go to the What Works Clearinghouse, you would find an entry for the Wilson Reading System, because it was part of a very large

study that was undertaken by Joe Torgerson and it was one of the interventions that was used and there was randomization to condition and there were different conditions and one of them happened to be Wilson. And then there was a control group and the Wilson students did better than the control groups on multiple outcome measures.

Tim Odegard: So, if you go to the What Works Clearinghouse through our department of education, you will find an entry for the Wilson Reading System, which means that it's been empirically validated. It means that it actually has been tested itself. Now there's a lot more to unpacking what it means to be research validated than just what I've stated. So, part of what I did was helping to create an awareness of that and then to continue and then to do similar types of research and lead that out. And that work continues and has actually expanded and evolved at Wilson [inaudible 00:19:23]. Now they're actually working with independent third party research firms to do the research and as person at Wilson who actually helps to be the liaison back, that would be more analogous to a pharmaceutical model. What your listeners may or may not know is that it's very uncommon for NIH, some kind of a federal granting agency to provide the dollars that actually do the clinical trials for our pharmaceutical and the medication that we take.

Tim Odegard: And those treatments is normally actually the companies themselves that will independently hire independent research firms. They will fund those independent research funds and then those are the data that go into our clinical trials and the different phases of trials that are needed to move it through, to be demonstrated, to be effective. So, it's not an uncommon practice in some of the

motivation for what Valerie [inaudible 00:20:12] and others when they were setting up the What Works Clearinghouse, when they were setting up these evidence practices, they were basing it off of this medical model and the pharmaceutical industry. Other groups are engaging in this as well and my work in consulting the states now, I'm realizing that more and more states are pushing for higher levels of standards of evidence. They're linking them back to ESSA and there's four different tiers of ESSA evidence. The first two, the highest tiers, are directly linked to the standards that are put forth by the What Works Clearinghouse and you have to have that level of evidence to be tier one or tier two, as a certified.

Jessica Hamman: I think one of the key elements is to be informed about the curriculum you take on and the screeners you take on and the efficacy of the screeners, and to be informed as school administrators, to be informed as school psychologists, to understand the interventions you're employing. And I think it helps provide listeners with an idea of how important it is to understand what research backed means. Yeah, so anything else you'd like to tell us about the study in particular?

Tim Odegard: I find that the ultimate takeaway, I'd like to say promising, but it's not, it's rather heartbreaking and you asked what I expected to find. I actually found what I hypothesized because part of what I did when I was at Wilson, which was where, or actually it kind of fed me and I enjoyed, was the implementation science work that we did. So going into large urban districts and doing work and getting data sharing agreements in place and looking at the universal screening data for hundreds of thousands of students in just one district, then 5, 6, 7 districts. And so I've had pass in front of my

eyes and go through my brain data from millions of kids from these universal screeners K through two from the work that I did in a very short amount of time at Wilson, and then looking at the systems and the systems that were there to support them and going and visiting classrooms and seeing what was happening or not happening in those classrooms, sitting down and doing implementation interviews with those administrators.

Tim Odegard: And I was coming to the conclusion based off of the data that I had, but really not in a position because the data sharing agreement, wasn't kind of written for research purposes for sharing out like I did in the JLD piece that our most underserved vulnerable populations are not getting what they need in the schools. Some of those we call dyslexics and they're not being identified at the rate that they should be. They're not being talked about, but far more kids who are black and brown and poor are not getting the services in the schools that they need. And time and time again, I would find that as they were going through school, these populations were not getting the support they needed to thrive and grow in the schools. That will be one of the forthcoming studies that we'll be publishing using kindergarten data and actually tracking across kindergarten in a fairly large sample, in a state to look at what's happening to different populations of students.

Tim Odegard: So, the issue of literacy, social justice equality is first and foremost about the vulnerable populations. I would hold that children who have a neuro biological difference and who are going to have a very difficult time and struggle, and then have social and emotional things that come out of that are vulnerable population. I would also say that students who are not receiving the support they need for a

myriad of reasons in their schools, and maybe the schools themselves aren't receiving the support they need to thrive, is also an issue and they're a vulnerable population themselves. So, really the takeaway is that we have to come up with systems and ways of allocating resources that are not based off of a finite limited idea, that where people start to fight over a few crumbs. And then that puts us at odds with one another, because the needs of the many are there and we all make up the many.

Jessica Hamman: Can I ask you for any ideas that you have for combating this issue that you uncovered and how all stakeholders in education, curriculum, creators, providers, trainers, teachers, school administrators, school psychologists, how can they become aware of what you found and then work to fight this discrepancy?

Tim Odegard: So, I think if you would've asked me when you first reach out to me two weeks ago, I think my answer would've been slightly different, but as we find ourselves in a time of coming of reckoning about these very topics that have been first and foremost on my mind for quite a while-

Jessica Hamman: And just to give reference, because listeners may be hearing this at different times, but we're right in the middle of a lot of protests about the killing of George Floyd and it's a very tumultuous time in our country. That's bringing to light a lot of things that need to be talked about. We are not used to talking about it in terms of education, but it needs to be discussed. This is an opportunity to look at the inequities you've brought to light in this study and say,

it's beyond time to change. It was time to change this centuries ago. It's time now to reckon with where we are as a country and say, what are our steps forward because we all need to work with it. Those who have the privilege and power, those who have been oppressed, and we need to meet in the middle and walk together and figure out a new way.

Tim Odegard: I agree wholeheartedly. One of my dear friends that I've had for a long time, actually wrote a piece on Desmond Tutu and she wrote a book about the work that had to happen in South Africa and still is going on in South Africa around reconciliation. And I had never thought about the fact that we keep using the same tools and instruments thinking that they're going to make a difference. So, I'll do a study, I'll write a piece for this translational journal for teachers. I'll do a PD. What probably, it's high time for us to do is not to think that any one person, any one organization, any one group is going to do this.

Tim Odegard: So, what I think it's high time for is a call for a coming together and it not being an issue of dyslexia and not being an issue of the science of reading, it not being an issue of color, which it is, or of economy, which it is and that we should actually open up and we should bring people together. And it starts with a dialogue and that I think data needs to be one of the voices. I would think that we should bring back to bare different sources of data and we should use those to help inform and contextualize the conversation that is overdue and much needed.

Jessica Hamman: I think that the work that you're doing is guiding us in a direction that we can start to talk realistically about what we're seeing and that is so important. What does the data tell us and how are we going to work to change that so that we have literacy rates that we can be proud of in this country? So, thank you, Tim.

Tim Odegard: Thank you.

Jessica Hamman: Thank you so much to learn more about Tim Odegard and his work at Middle Tennessee University, please visit his faculty page at mtsu.edu or visit him on Twitter at Odegard Tim or at Dyslexia MTSU. To find links to the articles and resources mentioned in this podcast, go to gleaneducation.com/podcasts and access them in the show notes.

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