



Glean Education's Research to Practice Podcast Episode 3 - Dr. Melanie Schuele (Vanderbilt University)

Melanie Schuele: If you're going to be a speech pathologist and you're going to teach people how to talk, if you're going to be a foreign language teacher and you're going to teach people a new language. If you're going to be a linguist or you're going to be a classroom teacher, you have to have this very well-developed understanding of how sounds and print work in concert with each other.

Jessica Hamman: High and welcome to Glean Education's Research to Practice Podcast, where we talk to education experts from around the world about their latest work, and bring their fascinating findings out from the journal pages and into your classroom.

Jessica Hamman: I'm Jessica Hamman, founder of Glean Education. And today we're talking with a leading researcher in a field and literacy and speech-language pathology, Melanie Schuele. We'll be digging deeper into two studies she's done on Phonological Awareness intervention, and phonemic awareness skill of speech-language pathologists and other educators. Melanie, thank you for joining us



today. I'd love to get started by asking you to tell us a little bit about yourself.

Melanie Schuele: Glad to be here. So I am a speech-language pathologist. I finished my master's degree in the 80s at the University of Texas at Austin. And I worked for four years in the public schools after that, then did two years of early intervention and then returned to school to do my PhD. And my interest really has always been in furthering school practice. I probably, when I left graduate school knew that I was going to go back and do my PhD. But I really wanted to spend some time in school practice settings so that I knew what it was I was trying to have an influence on when it came to teaching and preparing speech-language pathologists and also doing professional development. And my interest in learning to read and then ultimately in Phonological Awareness really came from my own challenges learning to read as a first grader. So that was way back when we went to school in kindergarten and didn't do any literacy things. So I don't remember any letters, I don't remember writing my name. I just remember playing and having a good time and painting on a really awesome easel.

Melanie Schuele: Then I went to first grade, and tried to learn how to read and really, really struggled. And I managed by the end of first grade with the help of a really great first grade teacher to figure things out. I've never been an awesome reader, I figured out when I went to college and took a phonetics class my first semester of graduate school why I had had difficulty learning to read. I had really pretty lousy phonological awareness, even then. And so had to spend a lot of time my freshman year of college figuring out Phonological Awareness so that I could transcribe children's speech.

Jessica Hamman: So interesting. So really a personal experience behind the research motivations.



Melanie Schuele: Yes, really. Yeah.

Jessica Hamman: So tell me a little bit about the backstory behind the article on phonological awareness intervention. Why do you feel like this was an important paper to write?

Melanie Schuele: When I was in college, I had this interest in reading and I attempted to write a paper my junior or senior year of college on the links between oral language and reading and I had a sister with specific language impairment and so I had some interest there in terms of what her reading difficulties were. And pretty much at the time, this was the late 70s, early 80s, there just wasn't a whole lot that clearly linked why children were, what the link was between oral language and written language. And then so when I went to graduate school I worked with Anne Van Cleve, she was my mentor and one of my faculty professors. And she was really interested in Phonological Awareness development. And that was the point at which these links between decoding and Phonological Awareness decoding and spelling, Phonological awareness and spelling were really coming out of Haskins Lab and a few other places. And so that's where my interest in Phonological Awareness came. So in the early 80s I spent a lot of time reading about Phonological Awareness and thinking about how we might get children with language impairments to get enough Phonological Awareness that they could benefit from early reading instruction. And I can pretty much say that in 1985 I had pretty much read every article on Phonological Awareness that was published at the time.

Melanie Schuele: Literatures now are just way too large and you can't do that. At the time I really had pretty much read all the Phonological Awareness literature and I knew what we needed to do in terms of developing kid's Phonological Awareness, but there weren't good standard treatment protocols, there weren't good programs out there. And



there I was working in the schools and I could kind of do a little bit here and a little bit there but never enough to really have an impact. And I would have had to spend a whole lot of time to put something together. So there were some materials, but just really not comprehensive programs. And so when I was a faculty member at the University of Nevada, after I had finished my PhD, one of my students, Naomi Dayton Murphy agreed to do a thesis with me.

Melanie Schuele: Her thesis project was the development of a 12 week Phonological Awareness intervention program that we called at the time the intensive Phonological Awareness program. And we at the time were really thinking about speech-language pathologists and how they might have an impact on kids with language impairments. And subsequently, I was drawn in to a statewide project in West Virginia which really was a collaboration between speech pathologists, special educators and general educators to bolster Phonological Awareness. And they used our intervention program and that led to really rewriting it with enough detail in it so that a wide audience of educators could implement a standard treatment protocol in Phonological Awareness.

Melanie Schuele: And we were interested really in the program of laying the foundation of what were the skills that children needed to have. To teach those skills. And so we have published one paper from that project in West Virginia, and then in terms of doing professional development, really what I found lacking was people's understanding of what Phonological Awareness was, what are all the variables we need to consider in terms of doing Phonological Awareness instruction and intervention. And there were a whole lot of articles out in the literature that said hey, we did a Phonological Awareness treatment program, it worked, and this is what you need to do with children. But somewhere along the line, I came across a paper, the first author was Smith. She talked about in that paper that we as educators often don't deal with the details of



instructional design. So we broadly know what it is we need to do. So broadly we know we need to teach Phonological Awareness, but that doesn't help you with the boots on the ground and actually doing it. So the paper Phonological Awareness Beyond the Basics was really my attempt to impact the boots on the ground. And really think about what it was people needed to know in order to do Phonological Awareness intervention and instruction.

Jessica Hamman: And one of those issues actually is a very common misconception that occurs in general ed teachers that confuses Phonological Awareness with phonics. And you mentioned this in the paper. Can you tell us a little bit about A, the difference. So that we can just clarify it for people. And then why understanding this difference can affect student project student progress in the classrooms?

Melanie Schuele: So when we think about phonics, and we think about Phonological Awareness, Phonological Awareness is analyzing the sound structure of language. And the end result that we want to kids to arrive at is that ability to take a spoken word, and divide it into its component sounds, and then take those component sounds and put them back together to formulate a word. You have to have both of those skills. And then phonics is a matter of using that Phonological Awareness in a print context. Phonological Awareness really is just that analyzing the sound structure of language. And you don't need to know anything about print in order to develop Phonological Awareness. Phonological Awareness is the ability to analyze the sound structure of language. We sometimes see people identify Phonological Awareness or define Phonological Awareness as hearing the sounds in language. I don't like to use that term because when I say that to a family member or a teacher, then we often get into a discussion about whether the child has a hearing loss. And it's not the case that children can't hear, but just because you can hear, doesn't mean you can analyze. Phonics comes in when we have that skill of analyzing the sound structure of



language. And now we say, okay, well what symbols can I attach to these sounds that I'm analyzing.

Melanie Schuele: And so phonics really is the print piece of it. So if I think back to myself in learning to read, I had memorized the letters and sounds. What I couldn't do was move beyond that, because I really didn't have an understanding that words can be divided into sounds, and then you can take those sounds and you can build them back together. I distinctly remember having a conversation one day with my lovely first grade teacher, who was probably all of about 21 years of age. And there she was in a classroom of 40 children teaching us to learn to read. So I can't even imagine what that challenge was for her. The word in front of me was C-A-T. And so she said, "Well sound it out. Tell me the sounds that go with each of the letters." So I say.. And so she says to me, "Well put those sounds together." So I say... And she says, "No, say it faster." And so we go back and forth several times, and I end up with... And she looks at me and she says, "No. The word is cat." And I distinctly remember in my head thinking, "Well, why didn't you tell me that two minutes ago? Why are we having this back and forth? What is this all about?"

Melanie Schuele: And then another example, when you're bad at doing something, what you get to do is go home and do it at night with your parents. So my mother, we had four children in our family at the time. And we would eat dinner. And my mother would be doing the dishes. And my three sisters would get to go off and play. And I would have to sit at the kitchen counter and read to her. Which is always nice when you're spending a whole day doing something that's not very pleasant and then you get to go home and do the same thing. So I'm reading a word to her, and I see L-I-T-T-L-E on the page. Now by this time I had memorized a halfway decent number of words. So I could read a simple book just from memory. So I get to that word and I have no idea what it is. So she tells me to sound it out just like my classroom teacher.



Melanie Schuele: So I say... And she says, "Well that E at the end is silent." And me and my first grade self, I don't say this out loud, but I say it in my head. "Well, if it's silent, what the heck's it doing on the page? Get it off the page. We don't need it there." So then I say... And she says, "There's only one T sound." I said, "But there's two T letters." She said, "Yes, but that's only one T sound." And again I thought, "Well then why are there two Ts in this word?" So we went back and forth several times, and it ended up with her saying, "The word is not... it's little." And it was at that moment that I was like, "Oh. This has something to do with how I talk." And I began then to be able to put some of the instruction to use that my teacher had provided me. But the skills that I really didn't have was that ability to analyze the sound structure of language.

Melanie Schuele: So when you gave me the blocks, or the sounds to put back together, I couldn't get back to that word little. Because I couldn't extract out those pieces from each of the sounds. Because reading is not a matter of just pushing the sounds together. You have to be able to analyze and analyze is an abstract skill. And so attaching that to symbols, and then figuring out how those symbols work, and in English the orthography is really challenging. And that's a lot of learning that has to happen in order to figure out how those sounds, those 40 sounds of our language map to the multiple graphings that we have. So it's really important for teachers to be clear on what the difference of those skills are.

Melanie Schuele: And to recognize that if a child doesn't have that ability to analyze the sound structure of language, we can try to teach those phonic skills, but they don't have the foundation to really figure out the phonics skills. And so what they end up doing is memorizing a few things here and there, but not truly being able to figure out the orthographic system for language. And so we end up with kids that make very slow progress, don't make very much progress at all, or



have holes and know a little bit here, and a little bit here but don't have an even distribution of skills, a full range of skills that enables them to really learn how to decode and spell words.

Jessica Hamman: Your story really illuminates another really important thing that you point out in this study, which is the discussion around explicit teaching. So the story of you sitting at your kitchen table and not understanding why you haven't been taught. You've been taught something, but this doesn't follow what you've been taught. Really points out the importance of being explicit about the instruction and really ties in to structured literacy instruction and how teaching the why behind the literacy rules really helps students, especially students who are struggling with the auditory processing to put them in boxes so that they can understand the reasons for these sort of unreasonable things that are happening between our language and our connection to the written word. So can you take us just a little bit through the discussion about explicit teaching and why that's important and just a few different ways that teachers can utilize explicit teaching in the classroom with Phonological Awareness preparation?

Melanie Schuele: Okay so I think if we look at it historically, that can help us understand what level of explicit teaching some kids need. So when in the early 80s we started talking about Phonological Awareness, some people argued that this was a brand new thing, we'd never done this before, but really if we look historically, we've always taught Phonological Awareness. Might have been called something else, but we taught it. Kindergarten teachers and first grade teachers have worked on rhyming words since the dawn of creation so to speak. And all of us can remember in school circling pictures that begin with the... sound and circling pictures that begin with the... sound or the... sound or the... sound. But that's typically where Phonological Awareness instruction ended. And then we went on to phonics. And so at that point, letters get introduced, and we



don't do a lot of explicit Phonological Awareness instruction. We don't do very much more in helping kids analyze the sound structure of language. And for most kids, and when I say most, I'm talking about somewhere over 50% of kids, can take that little bit of Phonological Awareness and run with it. But what we know today is that there's a subset of children, and perhaps across the population it's about 20% of children who really need a lot more Phonological Awareness instruction and they need that Phonological Awareness instruction to be explicit.

Melanie Schuele: And so by more Phonological Awareness instruction, I mean that analyzing the initial sounds of words isn't enough. They can't generalize from there. So they need to be walked through analyzing not just the initial sounds of words but the final sounds of words. And then figuring out the vowel sounds in words. And then figuring out when there's a blend in a word. Again like stop or fast, how do you pull those two consonant sounds apart? So they really need to be walked through every step of that. They need Phonological Awareness instruction and intervention. Without having to simultaneously figure out how letters work. And that's where I think a lot of our instruction with kids falls apart. Say we have the Phonological Awareness glass, and we fill it about a quarter of the way full. And we've worked on rhyme, and we've worked on analyzing initial sounds. And we think that that's enough, and so we leave the glass alone. And we start introducing A and B and C, and the letters say these sounds, and now let's learn how to read. And we don't finish filling that Phonological Awareness glass up. And so I say to teachers and the speech pathologists that children need explicit time where you're only asking them to analyze the sound structure of language.

Melanie Schuele: And that doesn't mean we wait until you have the Phonological Awareness glass full before we introduce the letters. Because we know there's a lot of children that learn their letters and sounds



before they are two or three years of age, and clearly they don't have a whole lot of Phonological Awareness. But that we provide two parallel tracks. So we have this track going where we're learning the letters, and we're learning the sounds, and we're learning to figure out how to circle the pictures that begin with the... sound. What's that letter that goes with the... But then we're also working on that Phonological Awareness at the same time, and then we're giving children the opportunity to link those two bodies of knowledge and when they get a good amount of Phonological Awareness, and a good amount of alphabet knowledge, then they become increasingly able to link those two bodies of knowledge and figure out how reading works. How decoding works, and how spelling works. It's a matter providing the right amount of instruction.

Jessica Hamman: So do you think one of the issues behind this is that teachers themselves lack the language knowledge to effectively teach Phonological Awareness explicitly?

Melanie Schuele: So I would say for sure. And I think that the lack is there for the exact reasons that Louise Moats pointed out for probably 20 years now. And it is that the way we are teaching teachers how to teach reading in school isn't giving them the science background. The reading science, the language science knowledge that they need. And so when started doing the project in West Virginia, we couldn't just jump in and say, "Hey. Here's the instructional program and this is how we're going to teach this." We really had to lay the foundation. And help everybody understand more about reading science and language science. We used Louise Moats' Speech to Print book, and we spent a lot of time thinking about what are the sounds in language, and how do we analyze the sounds in language? How do we teach that to children? How do the sounds map to the orthography? And in the course of that, really realizing that Louise Moats really hit the nail on the head when she says that what teachers need to do is to learn to think beyond print. What happens



with adults is that once we learn to read, we don't have to access our Phonological Awareness knowledge very often. Because we have automatic recognition of words.

Melanie Schuele: And so we don't often think about the sounds in words. When we have to think about the sounds in words, when we're asked to spell a word that we don't know. And then also when we have to learn a foreign language. We definitely have to think about sounds in language then. We really spent a lot of time thinking about this term of how do we get teachers to think beyond print? And why is it hard for them to analyze the sounds in words? But if you're going to be a speech pathologist and you're going to teach people how to talk, if you're going to be a foreign language teacher and you're going to teach people a new language. If you're going to be a linguist or you're going to be a classroom teacher, you have to have this very well-developed understanding of how sounds and print work in concert with each other. And that's the body of knowledge that Louise Moats has really elegantly mapped out in her book *Speech to Print*.

Jessica Hamman: That is perfect.

Melanie Schuele: So I recommend to every educator, if you have not read that book, read it.

Jessica Hamman: Great, Melanie. Thank you so much. You're a wealth of knowledge, and I really appreciate you chatting with us today. You can learn more about the work Melanie is doing at the Child Language and Literacy Lab at Vanderbilt University Medical Center by going to ww2.MC.Vanderbilt.edu/CLL.

Jessica Hamman: Thanks for listening to Glean's Research to Practice Podcast. If you're interested in learning more, head over to GleanEducation.com to listen to more episodes, access teacher



resources, and join the movement to make in-service teacher education more dynamic and accessible. Bye for now.

