Triple R Teaching

Hello, Anna Geiger here from The Measured Mom, and today we're continuing our expert interview series!

Today I'm speaking with Dr. Katie Pace Miles, associate professor at Brooklyn College, City University of New York. Her research interests include orthographic mapping, high frequency word learning, reading interventions, and literacy instruction that is grounded in the science of reading. I know you'll enjoy learning how she got into education, about how she did work with Dr. Linnea Ehri, then our conversation about how word-learning works, including how to teach those tricky high frequency words, and finally some programs that she's developed. Let's get started!

Anna Geiger: Hello and welcome to the podcast! Today we have the privilege of speaking with Dr. Katie Pace Miles, who is associate professor at Brooklyn College. If you've seen any of her presentations, she's done a lot of talking and presenting about the concept of sight words, what we have been traditionally getting wrong, and how we can change how we teach sight words. So welcome, Dr. Miles!

Katie Pace Miles: Thank you for having me.

Anna Geiger: Can you tell us a little bit about how you got into education, how balanced literacy was introduced to you, and then how you switched gears very quickly and the education that you got?

Katie Pace Miles: Sure. So I started teaching right after college. I was an elementary major. The school I was at was balanced literacy, and the crazy thing when I look back on it is that there was no curriculum. I was at one of those schools where every teacher made their own literacy curriculum, and so you were pulling from all different resources and things were being handed down and each classroom was doing it in a slightly different way.

For my master's, I went into educational psychology, but it had a really strong teacher training track to it. What was interesting is I came upon this dichotomy where I was

learning about cognitive science and educational psychology, but the teacher training part of my master's was training me in balanced literacy.

We had to read The Art of Teaching Reading, and it just never sat well with me. I just rejected it. I remember scanning the book and I didn't know that this was what I would be doing now happen years later. Just in the moment, it just never sat well with me.

I felt like my students really needed more what we now call explicit systematic instruction. I became a reading specialist thereafter. I think I was always drawn to the striving readers and because of that, I just knew for those students, this was not going to work for them.

Anna Geiger: I'm going to insert a little bit there. For those of you not familiar with that book, The Art of Teaching Reading is by Lucy Calkins. It is very fat. It's probably about six hundred pages, and I'll just have to be honest and say that back in the day, I loved that book. I highlighted it up and down. I thought it was so inspirational. I just pictured this perfect class and how I was going to apply everything. I think I was sitting on the beach once reading that book and I loved it.

It's great to hear that you saw through it right away. Looking at the book now, I don't know if I still kept it, sometimes I keep those old books for reference, but I believe out of six hundred pages, there's about six pages that even mention phonics and there's no discussion about explicit teaching. I should go back and see what she talks about for the rest of the book.

But you could see right away there was something wrong with that. Can you talk a little bit more about this disconnect between your master's work and what you were learning in college?

Katie Pace Miles: Sure. So in my undergrad, I had gone to a really strong education program for my undergrad, but the thing that always, always bothered me is these moments of what EXACTLY do I do? What am I exactly supposed to do? I think that might be who I am just as a pragmatic person in these delicious courses.

At the end every time, I'd be like, "What does that mean when you go into the classroom tomorrow?" So that urgency that teachers feel when they hear me talk or anyone else talk, that's exactly who I was sitting in classes.

So I actually decided I wasn't going to do an education master's. I don't want to be extreme, but it just didn't sit well. I kind of wanted to reject a little bit of this, "Let's just talk about theory in education."

Now I was going to college in the early 2000s, and so there was none of this, "Let's do explicit, systematic, and all of that." The science of reading was not a part of my undergrad training in elementary education, and I just felt like I couldn't take it anymore.

I sought out this educational psychology program, and I fell in love with it because it was explaining what happens developmentally, what is happening cognitively when students are learning all different sorts of things. It was not specifically for reading, but I had this passion for teaching reading, so I was able to apply what I was learning in that master's to the children that I was teaching, and it just made so much more sense.

You have very basic things like previewing, reviewing, and then this whole idea of being systematic. This whole idea of developmental windows. That got me right away. Oh, yes, that makes perfect sense.

Having worked with kindergartners through third grade, there are certainly these developmental windows and you can see the bands. Not everyone's at the same point. They're not supposed to be.

I went on to do my PhD in educational psychology as well with Dr. Linnea Ehri. That was the best because obviously Ehri combines educational psychology and cognitive psychology with, very specifically, the development of reading.

Anna Geiger: And just for my listeners, Dr. Linnea Ehri is a huge name in the science of reading community and has contributed some major things including phases of reading and also the concept of orthographic mapping.

So it was a huge and amazing opportunity you had. Can you tell us more about how that worked?

Katie Pace Miles: Oh, it was like a dream come true. So while I was finishing up my master's in educational psychology, I was serving as a learning specialist actually for

students in grades 3-5. I was dealing with a lot of students who it seemed to me they weren't getting the instruction they needed in K, 1, 2. Whereas you would hope there wouldn't be as many students needing reading support in 3-5, my caseload was huge. It was overwhelming.

Because I was in an educational psychology program, I came upon Dr. Ehri's research and just glommed onto it right away. It was experimental psychology work. She was manipulating variables with young students in determining whether it worked better this way or that way. Right away I was like, "That's what I need. That is what I've been waiting for."

I was able to translate it. The translation piece I felt was right there. It was like, "Okay, I'm going to try this tomorrow in my classroom." So I started communicating with her and applied and was very honored to receive a fellowship to work with her for five years.

Anna Geiger: Wow. Wow.

Katie Pace Miles: It's amazing.

Anna Geiger: So what did you do during that work?

Katie Pace Miles: So I served as her research assistant, and then I was also her student taking all of her classes. In this fellowship role, they set me up to start teaching at one of the City University of New York campuses. I wound up at Brooklyn College teaching developmental literacy. So as I was learning about all of the research from Dr. Ehri, I was then going to teach in an undergrad situation where these were all pre-service teachers. So it was my duty to translate what I was learning from Ehri to these students. It was just my job simply.

It's not what it is today, like, "Oh, we have to figure out the translation and whatnot." I was just forced to do it. There was no way that I could turn a blind eye to what I was learning in Ehri's classes and then show up on Wednesday to teach and talk about something other than what she was demonstrating that so clearly had mounds, years, piles of evidence behind it.

Anna Geiger: Amazing. Amazing.

I know one of the big things you like to talk about these days, one of the many things, is about sight words and what those really are and how we should approach them. Could you start us off with a proper definition of sight words? I know many people consider those words you can't sound out; you just have to memorize them. There's plenty of websites that still define them that way. How would you define it?

Katie Pace Miles: Well, I don't even use the term sight words. As you learn about the theory of orthographic mapping, you'll understand that the goal is that all words are going to be able to be read by sight because you would've mapped the letter-sound correspondences over time. You would've mapped that and stored that in memory.

That term, sight words, it came from a good place to use it with this subset of words, but it actually is inaccurate. So the words that I think we're all referring to when we say sight words are actually high frequency words.

Then I often like to say those are just words that are used a lot, and this idea that they're all irregular is inaccurate, but you have to look at your list. You have to scrutinize. You have to consider what phonics concepts you've taught so far and then look back at your list and say, "Actually, yeah, this word is now decodable."

So to go back to it, I would say high frequency words are words that are used most often in print, in text.

Anna Geiger: I've had an episode, quite some time ago, about orthographic mapping, but can you again define that for us and tell us how that relates to establishing a sight word vocabulary?

Katie Pace Miles: Ehri's theory of orthographic mapping proposes that there is a glue that is formed between the spelling of a word and its pronunciation, and also the meaning supports that. So it's the spelling, the pronunciation, and the meaning of a word that comes together to be mapped in memory.

Now the glue, as I mentioned at the beginning, and I always go like this because her diagram literally goes like this, this part of orthographic mapping is what most securely stores it in memory. The meaning supports that, but it is critical that when you are learning to read a new word, especially as an emergent reader, you are having a moment where you're analyzing what does the spelling of this word look like? And how

does that spelling break out into the phonemes that I need to produce and then blend back together to say the word? Then over time, that glue will be strengthened.

It's not that you're going to do this where you analyze the spelling, map it to the pronunciation, and the next thing you know... Well, for some students that does happen. It's stored. For other students, the students that I'm working with, striving readers, it takes numerous exposures to that word to map it and securely store it in memory so that it can be read automatically by sight. Right? That's the goal.

So all words are going to go through this process and all words, again, the goal would be that you can read it automatically by sight at some point. Maybe it's after the first exposure, maybe it's after the fourth. Maybe for some students it's after the tenth or more exposure.

Anna Geiger: So let's say a teacher is doing the right things, they're teaching phonemic awareness and phonics, they've analyzed the high frequency word, but maybe the two words are "what" and "when" or "what" and "why." And they have a student who just cannot remember them. What tips would you have?

Katie Pace Miles: Definitely taking, as everyone who's listening to this knows, a multimodal approach to this. Sometimes we have the instructional approaches that we do consistently in our classrooms, and we know that for some students, we're going to have to really shake it up.

You can go through different protocols for high frequency words. I would crack out those magnetic letters. I would be counting the phonemes. I would be mapping those letters to those phonemes. You could do that without magnetic letters. You do it with magnetic letters. You bring other resources that you have around the classroom to do that.

Then it would be also your spelling brain. Can you work with students to say, "Hmm, I am seeing that this word is spelled W-H-A-T. How do you think that would be pronounced? /w/-/ă/-/t/. Oh, well actually, we have to adjust our brain and say /w/-/ŭ/-/t/ and why does it do that?" And then you would compare, are there other words where the A is making that sound? Just to give it more of a network around that letter making that different sound too. It's very likely that that will help that student to be like, "Oh yeah, it's like in the word..." whatever it is, and then they are creating those connections.

Anna Geiger: So you talked earlier about how meaning is so important to help those glue, and just as a reference to everybody who's not watching this, but listening, Dr. Miles had her fingers laced together when she was talking about gluing the pronunciation onto the letters.

How would you recommend approaching that when it comes to those abstract function words like "of" and "was"?

Katie Pace Miles: Anna, I actually have a research study that I conducted with Ehri a few years ago where we focus solely on function words. Well, I guess not solely. We had one where we were doing function and content words, and what we found really focuses on multilingual students. In the study it was non-native speakers of English, and what we found was that they needed examples of how to use those function words in sentences. They needed multiple examples over time in order to then be able to use that word appropriately.

Then we know from the theory of orthographic mapping that that's just part of the amalgam, as Ehri says. So if you know how to spell it and pronounce it or decode it, and you have that meeting, you're just going to have more clarity. You're going to have a clearer representation of that word in memory.

While we did focus on multilingual learners, I think there's also a lot of students for whom having opportunities to use the function words "of, the, what, why." All of those ones that are all over those high frequency word lists. Having opportunities to use them both verbally and in sentence writing, it's only going to strengthen the representation in memory.

Anna Geiger: So multiple exposures, sentence work, and maybe oral language work with those words.

Katie Pace Miles: Oral language work. Yep.

Anna Geiger: Now there's a lot of kindergarten teachers, maybe first grade teachers, who have a long list of sight words they're expected to teach. Then there's also the idea, which I used to espouse of, starting preschoolers with sight words because it felt easier, right? Because it kind of was to a point. You could memorize twenty words, whereas they might not quite be ready to sound out because they don't have the phonemic awareness skills or whatever.

And yet, this is really counterproductive. Can you talk a little bit about why it's really not a good use of time to memorize these long lists of words?

Katie Pace Miles: It really takes me back to these developmental psychology classes too. It's like time is limited in early childhood. There's only so much instructional time that you have. If we know through the research that the best way to securely store words in memory is through this decoding process, it doesn't make sense to spend so much time on memorization.

That time would be much better spent on letter-sound knowledge in preschool to make sure that you really have strong letter-sound knowledge going into kindergarten. Or there are many preschoolers who are ready for CVC word reading and it's completely appropriate. People are always like, "Oh, it's inappropriate." No, no, totally appropriate to go there.

Once they have that letter's sound, you start, in a really fun way, putting those words together. You can do it actually just with VC words at first, right? At, it. I just think it's really about time and the long-term outcome.

One of the things that I'll add on to that too is about habits. So if children start learning the habit of memorizing words in preschool, and then that's the focus of kindergarten, then all of a sudden we start telling them, "Oh no. Now you need to decode this word." And decoding is effortful. It's hard.

Anna Geiger: Yep. It's hard.

Katie Pace Miles: It's hard work. So it's best to start with that, get that on the ground, and then that's just the way you read words.

Anna Geiger: I was just reading something the other day, and I can't remember what it was, but it was something about how with a class they had teaching "sight words," but once the kids got to a certain number, they were forgetting the first ones.

Katie Pace Miles: Of course.

Anna Geiger: Which makes perfect sense, because if you're just learning it by memorizing it, your brain can only hold so much. Whereas actually, if you've mapped it into your brain by sounding it out, that makes more sense.

What could you say to teachers who are using a decodable book and naturally, of course, there's going to be a word or two sometimes that is not yet decodable for the child or maybe never will be technically fully decodable. How would you recommend they approach that word so the children can actually read the decodable?

Katie Pace Miles: I would hope that the decodable books you're using have limited high frequency words that you haven't taught yet. If that's the case, it's totally fine, right? I think it's okay when you come upon that word to say, "This is the word 'is,' or 'you'."

Anna Geiger: Or "have" or "does." Maybe "does" would be good one. Yeah.

Katie Pace Miles: There you go. And then it's up to the teacher. Does she want to take the teachable moment and break down the word into the sounds and map the letters real quick? Totally, that would be great. You could do it at the end. You could do it before. You could do it before the reading, after the reading. I think that it's a teachable moment where you don't need to require the child to then memorize the word.

Anna Geiger: Yeah. Right. That makes sense.

Katie Pace Miles: So I think there's this concept that if it's a high frequency word, then it has to be memorized, and then we have to make sure that that word has been memorized before we go on to the next. I don't look at it at all, especially if there are forty CVC decodable words in that book. That's your focus! If students can do that, that is such a victory! That's such excellent teaching. The teachers should feel so accomplished with that. Then just do as much mapping for those high frequency words as you can and move on.

Anna Geiger: Exactly, and not stress about it. Because the focus of the book is practicing those sound-spelling patterns that you've taught.

Katie Pace Miles: Absolutely.

Anna Geiger: You have done a lot of other things, including a program called Reading Ready. Can you talk to us about some of the projects that you have and the things that you share with people? I think a lot of them for free?

Katie Pace Miles: Yes, sure! I could talk to you about CUNY Reading Corps and I could talk to you about Reading Ready. Maybe I'll start with Reading Ready.

So I have two children, and my older child was an emergent reader in the midst of the pandemic, and I could not get over the fact that schools were closed and there's this developmental window for children to learn how to read, and my child was entering into it and I just couldn't get over it.

I was thinking about all these caregivers at home and what were they going to do? Also with young children, the remote instruction was not landing with them. They're young children and they're not going to learn how to read in a Zoom room of twenty five other students.

I had been a part of an intervention program called Reading Rescue. It's first and second grade reading intervention. At the same time that this was happening with my own child in the midst of the pandemic, I also saw that more and more students were entering into this. It's supposed to be an emergent intervention, but students were entering it without the prerequisite skills that they needed, and it made a lot of sense.

So I wrote Reading Ready based on what I was doing with my own daughter at home. Reading Ready is a simple to execute program. It has ten lessons. Each lesson has its own explicit systematic phonics instruction. Each lesson, though, so it's not that you just have ten sessions, those ten lessons break out into thirty to sixty sessions. It's a controlled, I call it an intervention, but it's also preventative. You could use this with young children before they need intervention just to make sure they're getting good word analysis work. Or if you have a first or second grader who didn't get this in kindergarten, you may want to use this program.

Each session starts with letter-sound review, and then you do phonemic awareness work using those sounds. There's a few compound words in there that don't relate to those, but I keep it really controlled. Those sounds then are used in the word analysis part of the lesson, and you're doing sound-letter mapping using words, and the words only have those combinations. Then you go into sentence reading. The sentences

overwhelmingly only have those words. In fact, over the thirty to sixty sessions, the students are only ever going to see six irregular high frequency words and up to lesson five, which would be a minimum of fifteen sessions, if not more, they're only ever going to see, I think it's three high frequency words.

Anna Geiger: Okay. Wow.

Katie Pace Miles: I'm really obsessed with keeping those high frequency words at bay for these emergent word readers, because it's all about, as I mentioned before, this habit forming of we have to do the hard work to read these words. It is difficult, but the students catch on very swiftly when they're in this environment where they can be successful.

Anna Geiger: I'd like to talk a little bit about what you said, the hard work. So this is kind of funny, but when I first learned about the science of reading three or four years ago, I was starting to read all these books that people recommended, and I put comments on the side, and I was very resistant, so I was kind of writing snarky comments on the side. When people would say, "Learning to read is hard." I'm like, "Oh, well that doesn't sound like fun," because I was used to the leveled books and it just seemed so magical and to think that you'd have to struggle through these words sounded awful to me. How would you convince a five-year-old that this hard work is worth it?

I have a different perspective now, but I'd like to hear from you how you would address someone who felt that way.

Katie Pace Miles: I think that's so honest. I really appreciate your honesty. I've worked with young children, and I've only ever really done it this way where I've been doing the letter sounds. While I do see it being hard, when they get it, they are so rewarded by having figured it out. It's like when they solve a puzzle, or they build something with their Tinker Toys, or Legos, or something like that, they feel so accomplished. I think they have this security, it's maybe subconscious, but they know what to do.

They have skills that they bring to the table the next time they're presented with words. They don't have this insecurity of like, "Either I have it or I don't. Either it's been memorized or it hasn't. So good luck to me."

Anna Geiger: Yeah. I really appreciate hearing that. Just as a quick aside, I learned

about structured literacy and all that with my youngest, and I taught all my kids to read before they went to school because I thought I should get to be the one to do that. He was almost five. He wasn't in school yet. I started teaching with decodables, which was very unlike all my other kids.

The very first day I pulled out a decodable and a leveled book, and I thought I just didn't want to get rid of the leveled books. That very first day I saw how confusing it was. First I did the decodable, but then I pulled out the leveled book and said, "Oh, you can't sound out those words." It just made no sense, and I thought, "Okay, I get it now. I won't use them."

But at the very, very beginning, it was very slow. My husband who had heard me teach all the other kids to read with leveled books said to me later, "I felt kind of sad listening to him read like that. It sounded so hard." He caught on very fast, but it was just very interesting.

I remember with some of my other boys, we have six kids and four are boys, and with a couple of them, the learning to read thing with the leveled books was very annoying. I remember I just thought, "We just have to push through it." It wasn't like that was perfect either.

But he would take these decodables and he would just go sit on the couch and just read them all by himself without me telling him to. Because like you said, like Anita Archer says too, success breeds motivation. I just want to reiterate that for people who might be feeling a little bit like I used to feel.

Katie Pace Miles: I'm so glad you're really emphasizing the decodables here. That contrast, Anna, that you just mentioned is, again, so honest and really important for people to hear. The contrast of starting young children with leveled books. They have to rely on the pictures because these big words are in there and they're full of irregular high frequency words. So you're guessing at those, and you started that bad habit. You're looking at the picture. You're using partial decoding skills all the way through it versus you put in a little bit of that hard work and you get up and going, and then it really starts building upon itself.

One of the things with Reading Ready is that I intentionally wrote these sentences that are disconnected from pictures. So the students, they just have a sentence to read, and you can write it on a whiteboard. In the book, it's not that big, but you can write it on a whiteboard. If you have a student who's starting in level one or lesson one, they really struggle to read one sentence, whereas they might have whipped through a leveled book. But when they actually have to attend to those letter sounds, everything is

brought cognitively to that activity.

I remember with my daughter, it was just getting that one sentence and then a few less sessions later, she was able to read two sentences and it was still laborious, but I knew what we were working towards. And then just like your son, then she was off.

Anna Geiger: Yeah.

Katie Pace Miles: I didn't even have to finish Reading Ready with her. I was like, "Okay, you don't need this anymore."

Anna Geiger: It's interesting how that works out a lot sometimes.

I was reading, I think it was Margaret Goldberg, and she said something about how it feels like they're not going to get there, like they're not going to be able to do it, but then they do. And that's the "magic" of orthographic mapping, once they map those CVC words, all of a sudden they're automatic and then they can just breeze through books and it's very exciting. There's a quote from, I think, John Shefelbine, that's something about how you have to just struggle through and grunt through it at first, and then the reward is going to come.

But just as a reminder for people too, I think I read this in another Facebook group, you've got to start slow to grow. With the decodable words, it is going to feel like you're not making as much progress as the teacher in the next classroom who's using leveled books because their kids seem like they're reading much more fluently than yours. But we could go off on a whole tangent about the simple view of reading and all that.

Katie Pace Miles: It's so hard. When I give talks on high frequency words, I always bring it back to orthographic mapping. I have these airplanes that'll be going up, and I'm like, you have to go through this nail-biter when the plane is taking off. I'm a nervous flyer. And it's like, are we going to get there? Every word is a nail-biter.

Anna Geiger: Yep. Interesting.

Katie Pace Miles: It's so worth it. It's so worth it, and if you know the theory of

orthographic mapping, you're just thinking, "Okay, one of those glue strands just connected." "Oh, maybe I got two glue strands this time." That's great. And you're like, "Okay, I can keep coming back to this."

Anna Geiger: And also, I think it was in the Proust and the Squid, I was reading that one yesterday, and she was talking about how all the work you're doing is just rewiring the brain. You can know that every session you're doing is doing important work. I think that's good for teachers to remember that it might feel like we're not making any progress, but we're building those pathways. For some kids it takes a lot more practice, but all that practice is going to get you somewhere. You've just got to keep at it.

Katie Pace Miles: That's right. That's right. It really goes back to what you had said before that the bottom is going to fall out of the memorization at some point. The fourth grade reading slump is emblematic of this. Students all along in K, 1, 2, they were strong, they were a strong reader. Then they get to the end of second or third, and then all of a sudden it's like, what happened? What happened?

Anna Geiger: Yeah. Can you talk to us a little bit about the other program you mentioned?

Katie Pace Miles: Oh, sure. So CUNY Reading Corps I started in the midst of the pandemic. It's now called CUNY Reading Corps, it wasn't called that when I started it. What I did in the midst of the pandemic, this is fall of 2020, and I was going back to teach at the university. Everything was online, and my literacy courses have thirty hours of field work. My students could not observe in Zoom rooms of the DOE, and my students, because I'm a part of a general early childhood program, which my focus is K-2nd grade, my students only get one literacy course. I'm like, "Oh my gosh!"

I'm so entwined with the New York City Department of Education. I'm such a supporter of them. I'm like, "I have to make sure that this fleet of students every year knows how to teach a child how to read."

So what I did in fall of 2020 was I wrote a grant and received funding to train all of the students that were either in the undergrad or grad version of my course, and they were trained in Reading Rescue, and we trained them up and then sent them via Zoom into the homes of young children who were from underserved communities.

These were the children who were on my mind so much of like, "Oh my gosh, this is the moment when they have to learn how to read and there may not be the support, the

resources at home, and there may not be the ability to hire private tutors like what was happening with other privileged families."

I did this in fall of 2020 and continued into the spring. Eventually, this turns into CUNY Reading Corps. What we've turned this into is now the classes at Brooklyn College still are trained in Reading Rescue, and now we hire pre-service teachers from all over CUNY to be trained in either Reading Ready or Reading Rescue, and we deploy them out into the New York City Department of Education and partner with seventy schools across New York to provide this type of tutoring.

The tutoring is either done remotely or now it's in-person, and it has just brought such needed capacity and support to schools, and these pre-service teachers need the experience. They need to be trained in a program that prioritizes systematic and explicit phonics. They need to execute on this over multiple sessions. Our tutors do twenty to forty sessions with the same student. What an experience that is!

We were also able to demonstrate... I'm a researcher, so I'm constantly looking at the students' progression, their growth, and we're seeing that we're making an impact, which is wonderful. So I'm really, really proud of that work.

I'll just give one more plug. Professors from around CUNY, more professors now are going to embed this in their courses. So I have my courses at Brooklyn College. It's now up to three courses at Brooklyn College. And then I believe at four or five other City University of New York campuses, we have professors who are going to embed this in their courses, and now there are universities across the country.

Anna Geiger: That's amazing!

Katie Pace Miles: I've worked with one of the foundations that has supported this, and they are also going to do Reading Ready in their coursework. I'm so just delighted with it. It seems to be really meeting the moment of what schools need, what children need, and what pre-service teachers need going out into the field.

Anna Geiger: That is amazing and really great to hear. I will for sure link to your Reading Ready program, which I've seen it. It's excellent. It's very easy to use.

Katie Pace Miles: Very easy to use.

Anna Geiger: You said you're a researcher. What are you working on now?

Katie Pace-Miles: I'm still working on high frequency words. There's a paper I actually just submitted yesterday with two colleagues, and we were, again, analyzing the Dolch high frequency word list.

It's been a little difficult to run experiments in... Well, it was impossible for me to run experiments during covid in New York. Now we're coming into the post-pandemic, and so I have some research with children on the docket, but in the meantime, I worked with two colleagues to analyze the Dolch list and to really look at what percentage of those words are irregular, have exceptions? And it's very low.

Anna Geiger: It's so interesting.

Katie Pace Miles: Very low. Like 1%.

Teachers should know that these words collectively are not even remotely overwhelmingly irregular. To have that in your mind really guides your instruction, and it helps you think about, okay, what phonetic elements am I teaching, let's say in kindergarten. That's what I'm going to tackle.

But maybe with short A, I should also mention that at times, yes, there's the long A, yes, there's the short A, but there's also this other sound that A makes, /ŭ/. Maybe I should just go there because it unlocks a whole trove of words from these high frequency word lists.

Or maybe that's up to the first grade teacher to do. I also respect that completely, but at some point in instruction, who's going to hit that part of this more advanced phonetic element knowledge?

Anna Geiger: Well, it is a lot to think about. I think it's really nice to hear from you, especially because I think personally, in my experience back in the day, not that many years ago, I would've thought of researchers as just very disconnected from classroom work, and it's just really helpful to hear that. I know that we've talked to others as well,

but it's good to know that many researchers are in classrooms, even former teachers themselves.

Thanks for all the work that you're doing, especially to translate it. I know I've really enjoyed the webinars and things you've given, which I'll be sure to link to in the show notes because they're really easy to learn from.

Katie Pace Miles: Thank you so much! I really appreciate the opportunity to be a part of your podcast.

Anna Geiger: Thank you so much for joining us!

You can find the show notes for today's episode at themeasuredmom.com/episode120. Talk to you next time!