What every literacy teacher should know about assessing RAN - with Dr. Erin Pzinski

Reach All Readers Podcast #242

Anna Geiger: Welcome, Dr. Psinzki!

Erin Pzinski: Hello! Nice to be here.

Anna Geiger: Thank you so much for joining me to talk about assessment today. We're going to talk about RAN, which I think is something not too many teachers know or understand a lot about. I know that I don't know a lot about it, so I'm excited to talk about that with you.

But before we do, could you introduce yourself and tell us about your history in education?

Erin Pzinski: Yeah, I have kind of an interesting story and also probably one that sounds a lot like many people that listen to your podcast. I started my journey in this work about 20 years ago. I graduated from the university, had a teaching degree, and they told me I had everything I needed to be a good teacher, right? I was going to go impact the world and do all the things that we're so excited about.

I got into my first classroom. I was hired to teach first grade in a small district in Wyoming. And I was like blissfully unaware, I think. If I think back to that time now, I know that there were students that I was reaching and students that I wasn't reaching, and I didn't have the skills or the knowledge to teach them to read.

Around that same time, it just so happened that Dr. Carol Tolman had a contact in this little district in Wyoming and was going to be driving through on her way to a larger school district and had offered to stop and provide professional development. At that time, they would've been early in second edition LETRS, and I was a brand new teacher.

I had my notebook. I sat in the front row, and she went through what is now like unit one in LETRS, the foundational models, and talking about all of the pieces.

I think the reading simulation came up pretty early in that, and I had no idea what she was talking about. I felt really uncomfortable. I don't think I'll ever forget that almost visceral feeling that I had. It was that, "Uh oh. There's, there's a problem here. I just graduated college and I don't know any of this."

Many of us, you know, I've read your story about coming to this knowledge, I think we get to this point where we're like, "Oh, I either need to dive into this or I need to go do something else." And that's a tough spot to be.

So I dove in. I kind of stalked her for a while. I moved to a school district in northeastern Wyoming, in the Black Hills where I'm originally from, and they were looking for literacy professional development. I said, "Hey, I know a lady that does that." And so we called Carol and she started coming to Weston County School District.

I was there for 15 years as a teacher, and later as the K-12 literacy facilitator for that district.

Dr. Tolman came in and coached us, not only going back through LETRS second edition and then third edition, in the middle, we were actually in the videos for LETRS. That school served as a filming site for

LETRS third edition, which was absolutely a kick - it's fun to go back and watch those videos. Now those kiddos are in high school.

We just learned so much and found that we were able to meet the needs of students that previously we weren't meeting the needs of, and we really got to experience a grassroots type movement of a shift in literacy in a school - a very successful school to this day.

They are having data meetings, moving kids, and it's all based on that professional development support from the curriculum director and the administration that was very important in that time. We built sustainability by training coaches - all of those things that they talk about in implementation. It's just a really great example of all of that.

So I finished out that role at the end of June, and now I am working for Acadience.

I also should mention that in the meantime of all of that, I attended Mount St. Joseph University where I received my doctorate in reading science and, kind of bringing us here today, my dissertation research was around teacher knowledge of rapid automatized naming.

Anna Geiger: So what do you do for Acadience?

Erin Pzinski: I work as their training specialist manager, so helping educators and administrators that are rolling out Acadience with the professional learning side. So how to administer Acadience. And then also what to do with that data once they have it.

Anna Geiger: So you talked about that visceral feeling. I had that feeling. Unfortunately for me, it was 20 years into my career in education. And for you it was at the beginning, which is incredible. I don't hear that very often.

I didn't realize that LETRS training had been around for 20 years. That's really, really great for you and for the students that you've been able to work with over the years.

So tell me why RAN - well, first of all, I'd like to know what led you to study that for your dissertation?

Erin Pzinski: Yeah. I think the reason that I became so interested in it is that we were having these data meetings, and we were talking about students and we'd get to a student and we'd say, "Oh, well, that student probably has slow RAN. And we'd all kind of nod and go, 'Okay. Yeah. Yeah.'" We might even give like a RAN RAS assessment that we had at that time. Later on we started using the CTOPP assessment to look at that, and then there was never a follow up.

So with all of these assessments and these data-based decision making systems, we give assessments and then we use that data. And what I realized is that we weren't using the data. We were almost letting it be a crutch.

And I didn't know, as the literacy facilitator, as a teacher, I didn't know what to tell people. And so that had kind of been playing on my mind.

And then a child that I cared an awful lot about in kindergarten, I mean, I care about all of them, right? But a kid that I'm very close to was flagged with slow rapid naming, and so then it kind of brought it back up again because we didn't know what to do about it.

When we found these kids that we were saying had slow rapid naming, I don't even know that we really knew what it meant, and so I thought that was really interesting.

Around that time, I was working on my doctorate at Mount St. Joseph University, so I had access to some great minds in this space, and I started asking questions about rapid naming and kind of simultaneously at the same time, we started seeing legislation coming out that required rapid naming as part of universal screening. So that was kind of like this perfect storm that got me thinking a lot about it.

And at that time, being in a school, knowing my own journey, I had a hypothesis that maybe we needed to explore what teachers know about rapid naming. I needed to learn more about rapid naming. And all of that kind of came together as my dissertation.

Anna Geiger: So what does RAN stand for?

Erin Pzinski: RAN stands for rapid automatized naming. And we can talk a little bit about where RAN came from and where it started.

In the late 1960s, Norman Geschwind was using RAN as part of research with adult patients that - I think he called it acquired dyslexia. And then Martha Denckla kind of picked up on that work into the seventies, and we didn't hear a lot. There's a little bit out there from that time period that we can look at. But what really happened was in 1999, I think that was the year, but in the late nineties, Wolf and Bowers came out with a double deficit hypothesis, and that's where we really start hearing and talking more about RAN from what I can tell.

That's where that conversation started and then really started hearing more about it as it was included as part of universal screening requirements in states.

Anna Geiger: So my understanding of RAN is it's someone's ability to name a set of objects at a rapid speed, but they know the names of the objects, right? It's just getting it out of their brain, right? So for example, for beginning of kindergarten, you wouldn't use a letter name assessment as RAN because they might not be automatic with their letter names.

But you could do, for native English speakers, regular objects or something, right?

Erin Pzinski: Yeah, we tend to see different types of stimuli that are used in RAN assessments. It's not all the letters in the alphabet. It tends to be five or six or, you know, just a handful of well-known letters in the alphabet.

And so we end up seeing colors and objects, and those are used when the child does not yet know their letters and numbers. That is not as predictive of later reading as letters and numbers. The big requirement is, I guess you could call it, that the child knows the stimuli. So you're absolutely right. They have to know what those objects, colors, letters or numbers are. And a good RAN assessment always checks hat to start with.

They need to go from left to right, top to bottom. And then we are looking at the overall amount of time that it takes for the student to complete that task.

Anna Geiger: Okay. And so going from left to right, top to bottom is the way that we read so that's why it's organized that way.

So you mentioned a little bit about how, you know, if you give a RAN assessment with letters and numbers, assuming they know they're letters and numbers, that that's a better predictor of reading ability versus maybe random objects.

Can you talk a little bit more about what RAN has to do with reading ability?

Erin Pzinski: I think this is a really good question, and I think it's a question that we've been asking for a long time because it seems so out of the blue. I'm having the child do this task and then it's going to predict later reading, specifically later reading fluency.

We're not exactly sure why or how it does that, and that can be really difficult in this world of research. What we know is that it is a strong predictor of later reading, especially fluency. So we know that we see that correlation happening and I think when we try to answer why it is, it gets kind of muddy and we get confused with it because there's a lot of hypotheses out there.

Likely it is mirroring something that's also happening, so the neurological pathways that will later be used for reading are likely being used for that task. And there are some functional MRI studies out there that have looked at what's happening in the brain when we complete a RAN task versus when we're a proficient reader. I think that's kind of interesting.

I don't know if that's the most beneficial part for teachers, and I think it's why I got kind of confused because I got into the weeds a little bit in some of that, because I think it is kind of confusing.

Anna Geiger: What does RAN have to do with phonological processing?

Erin Pzinski: I think it might be most beneficial for us as educators to think about the phonological aspect of reading separate from the rapid naming aspect of what we're getting at. I do think that there's probably some overlap there because rapid naming, we see, impacts a lot of what's happening in the brain.

But when we look to Wolf and Bowers, their work with the double deficit hypothesis essentially said that yes, we have this phonological underpinning for dyslexia. And that was really widely understood at that time in that research. However, there's also rapid naming that comes into play here, and rapid naming plus a phonological deficit is that double deficit, and those are the students that are going to need the most remediation.

It gets a little tricky because we can remediate the difficulties that students have in phonology. RAN acts a little bit differently and that can be kind of confusing too, I think, as an educator. But I think it's easiest for us to think of them as two separate entities of reading or aspects of reading assessment.

Anna Geiger: So if someone has low RAN, if that's how we say it, is that saying that they have low processing speed? Is that kind of the same thing?

Erin Pzinski: Maybe. It probably falls into there and this is where it gets a little muddy. So, yeah, it might be saying something about processing, it might be saying something about word finding. It might be saying, you know, there's a lot, even attention. And it's probably a mixture of all of that. There are a lot of hypotheses about what is happening when students have slow RAN.

Dr. Elizabeth Norton calls it that their check engine light is on. I think that's such a beautiful analogy because when the check engine light comes on in my vehicle, I don't take it to the shop to get the check engine light shut off.

Anna Geiger: Mm-hmm.

Erin Pzinski: It is a warning sign, right, that something is amiss, that I need to pay attention to something.

That's essentially how we have to look at rapid naming for the time being because we don't know what the underlying cause for that student's rapid naming necessarily is.

We know that they were slow on a rapid naming assessment, so the check engine light is on and we need to be paying attention, and there's some instructional things that we can consider for those students, but I think we can get really lost in the weeds if we try to dig in and see why rapid naming is predicting later reading. What is it getting at? What's the underlying cause?

I think that's where we get in the weeds a little bit and as educators pretty soon it's really frustrating. That's how I felt anyways.

Anna Geiger: Yeah, so basically it's just a sign that there's something wrong and we've got to dig deeper, just like with any other type of screener, right, where it's used to predict future reading success. And if they're scoring below benchmark, we need to be alert to that and digging.

So I know that you can assess RAN. I believe it's part of Acadience. Is that correct?

Erin Pzinski: Yeah, Acadience does offer a rapid automatized naming assessment as do many of the most popularly or widely used universal screeners.

I can't speak to the others because I used Acadience RAN in the school district that I was in and, it was, you know, relatively new to using it as part of universal screening. It's worth noting that it's not included in the composite score and it's an optional component that can be used.

Anna Geiger: Is it commonly used and would it be something where you might do just for individual students or do you recommend that schools are doing it for all kids and, and if so, what grade?

Erin Pzinski: It's taken me a long time to form my own personal opinions on how RAN should be used.

I think during my dissertation research and reading and all of the things that come at the beginning of that process, it would depend on the day that you called and talked to me about where I was landing on that.

I think that RAN can be a very powerful measure, and I'll tell you about two instances that I think it can be really powerful that are very different, and I think educators have to know how to interpret RAN data.

Anna Geiger: Yeah.

Erin Pzinski: In order for it to have that impact. I think it can be a little dangerous if we don't do the work to show educators what it is and maybe even more importantly, what it's not.

I say that because one of my concerns that pushed my curiosity is that I found a lot of teacher-created materials as well as one more commercially published resource that provided materials for practicing RAN.

We're talking about really, a crucial time in early intervention. We know how important that time is. And of course, in education, there's never enough time. If we are spending that time practicing rapidly naming objects or numbers or pictures or whatever that is, we are wasting valuable educational time.

So if we want to use this tool appropriately, and to help our students, we can't be practicing RAN, which is so counterintuitive for us as educators.

Anna Geiger: So what you're saying is before we even think about if we're going to do it or when we're going to do it, we need to understand why we're doing it and what we're going to do after.

So maybe we can start with that. You talked about how, when someone does poorly on RAN, the answer is not to practice RAN. In other words, having a whole bunch of objects arranged as if we're reading left to right, top to bottom and practice naming them. Why not?

Erin Pzinski: So we're not going to remediate rapid naming.

When we think about how educators function, when my students do poorly on an assessment, like telling time to the nearest five minutes, I teach that the next day, and that's how that type of formative assessment drives my instruction. That's how our minds work as educators.

Rapid naming, going back to that analogy, is like a check engine light, and the research is really clear that we haven't been able to show that training RAN improves later reading outcomes. It's quite interesting.

RAN might improve for a student. So, I have a student that we first assessed in kindergarten and was in the first percentile in rapid naming; that was using the CTOPP assessment. We fast forward to third grade. We've taught the student to read. Of course there's, you know, some things that we can talk about instructionally that happened there. But in third grade that student's RAN had improved, but so had all the other students'. So the percentile didn't change drastically at all.

And spending that time, that early intervention time, practicing RAN is likely not the best use of that time. We would likely be better off to be spending that time providing additional opportunities for that student to become accurate and automatic with foundational skills that we know are crucial for reading success.

Anna Geiger: So it kind of makes me think, maybe this is not a good analogy or comparison, but it makes me think a little bit about rhyming. We know that if someone's not rhyming well, that's probably a sign that something's not working. But fixing the rhyming is not going to fix the reading.

Erin Pzinski: Yeah, I think that's a really good comparison.

Anna Geiger: So I guess another question I have is if we already have these other things that we can test, right? We've got the other predictors like letter name fluency, phoneme segmentation fluency, all of that. Why would we need to, or want to, include RAN in that set of assessments as another predictor?

Erin Pzinski: Absolutely. I have spent an unreal amount of time pondering that exact question, and here is what I've come up with. I have found, and this is anecdotally in practice, I have found two situations

where I see rapid naming changing student outcomes or influencing the decisions that we're making for students.

And a lot of this, you know, was experienced with using rapid naming, figuring out how that fit into that assessment ecosystem that we built in as part of the larger literacy ecosystem in the school district that I was working in.

The first instance that I can describe is we're talking about a high performing elementary school. The students are coming in on our universal screener - usually I'm talking kindergarten - so coming in 40%, meeting benchmarks. So we've got 60% of kids here that need something, and it could be Tier 1 foundational good instruction. We know how fast those kindergartners can sometimes grow at the beginning of the year.

This is a district that those kindergarten teams generally produce outcomes of 95% of students meeting or exceeding benchmarks at the end of the year. So it's high performing and there are a lot of benefits to that, because now we can look deeper at the data.
Within that situation of a high performing school, I have subsets of students that have some indicators of risk that might not be being flagged on something like a composite score. When I see these profiles of students in kindergarten, what we're noticing is that they are not growing as quickly as their peers. And we also notice that, again, anecdotally with students that we've tried this with, when we provide those students with additional opportunities to practice - so now we're thinking about our grouping.

I have a student who is showing up as needing additional practice in a phonics skill, and I'm putting this child that is scoring okay, but has slow rapid naming (has their check engine light on), I'm putting them in that same small group for additional practice and opportunities to become automatic.

I think this is where we see the science of learning really benefit what we're doing with these students because I'm going to provide repetition, spaced practice. The things that we're hearing about in the science of learning fit in very nicely to the instructional recommendations for those students.

Now, that's a really nice spot to be in when we're getting to be that nitpicky with data. Not everybody is in that space.

In fact, more people are probably in the other side of this. Think about now, if you're in a school that 95% of students are flagged on your universal screener, they're in need of something else. How do you know which ones to service? Because we know that at the end of the day, there's never enough, right? There's never enough intervention time. We've got that you can't intervene your way out of a Tier 1 problem.

While all of that is happening, how do we know which students need to be cutting into the front of the line? How do we triage this? If you find a student that struggles in phonology and has a slow rapid naming, they get a fast pass to the front of the line because that child's going to take more instruction. They need more opportunities to learn and become automatic than their peers.

Anna Geiger: Yeah. So understanding that kids who have challenges with RAN are going to need extra opportunities for review, and so we need to put them in some kind of situation where they're going to get that and not just assume that they're just going to catch up because this is, am I correct, that if someone has low RAN, that's just kind of part of them? Am I right about that?

Erin Pzinski: Yeah, absolutely. I have not seen anything in the research that would suggest differently. However, what we can do is help those students overlearn. Dr. Jane Ashby and I put a presentation together and had some really great conversations around this, and the analogy that we came up with - we're all familiar with Scarborough's Reading Rope, right?

When we think about these students with slow, rapid naming and we're thinking about building those foundational skills, and I'm focusing more on the bottom strands of the rope, we can talk about what happens with the top strands, but really focusing on word recognition for this.

As they're progressing through kindergarten, first grade, second grade, they're building phonemic awareness, sight recognition, decoding, you know, learning the alphabetic principle, and it's kind of like their rope is a little frayed. They don't quite become automatic with any of those skills that they're learning.

They've got it, but this is a child that you might, in first grade, if you're giving a phonics screener, you might have that note at the bottom that went, this took a long time for them. They can do it, but it might take longer.

And then what happens is we get this third grader who's disfluent, they start leaning on ineffective practices. We know that that then impacts comprehension. And when you think about it, it's because all of the strands of their rope are kind of frayed and they didn't have the opportunity to become accurate and automatic in all of those skills.

And I know we're talking about reading, but it's worth considering what's happening with math facts and things like that as well.

Anna Geiger: So let me kind of wrap up some of the things we've talked about. So, RAN, rapid automatized naming, is this ability to name objects that you already know at an appropriate pace as long as those objects are arranged in the order that we read left to right, top to bottom. That would be, I assume, a timed test.

And then we know that the problem of phonological processing issues is often associated with dyslexia, but it might be helpful to think about that as separate from RAN. That's the double deficit hypothesis so that kids who have both of those challenges, low RAN and difficulties with phonological processing, are likely to have even more trouble learning to read.

We can assess RAN with various assessments. There's one that comes with Acadience, and there's others you mentioned. CTOPP has that as part of it, but it's not something we should be doing unless we understand the purpose. The purpose is not so that we can figure out who needs practice with RAN, but who is probably going to have more difficulty learning reading skills to automaticity and is going to need more support with practice.

And so we want to, as you said, push them to the front of the line because we know that it's going to take them more time and more effort and we want to put them in a position to get to get what they need.

Did I miss anything? Is there anything else that you think people should know about RAN?

Erin Pzinski: No, I think my big takeaway is we need to know that we have this really powerful, almost crystal ball that can help us predict what a student's reading is going to look like down the road.

And universal screening does that, but RAN itself is like a crystal ball and it is a powerful tool and I want us to be using it and know how to use it appropriately. That's kind of my big takeaway. I think educators know what it is. Now we need to work on knowing what to do about it for these students.

Anna Geiger: Well, thank you so much. I'm going to link to the articles that you shared with me before this episode so people can read more about it. Any other resources that you recommend for learning about RAN or anything else you want to share?

Erin Pzinski: Yeah, I think Maryanne Wolf and Elizabeth Norton have done a beautiful job of helping us understand how, not only what RAN is, but how it can impact the decisions we're making for students. Those are my two go-to articles that I recommend all educators read as you're growing your own knowledge around rapid naming.

Anna Geiger: Well, thank you so much!

Erin Pzinski: Yeah, thank you!