Equipping students to make strong inferences - with Dr. Amy Elleman

Triple R Teaching Podcast #198

Hello, this is Anna Geiger, author of *Reach All Readers* and creator of the Reach All Readers website. Today I'm welcoming Dr. Amy Elleman. She is a professor at Middle Tennessee State University and currently the director of their literacy studies PhD program.

One of Dr. Elleman's passions is researching comprehension, so today we dive deep into comprehension, specifically inferencing. We discuss what inferences are and how we can help students be equipped to make them. Here we go!

Anna Geiger:

Welcome Dr. Elleman!

Amy Elleman:

Hi, thank you so much for having me, Anna.

Anna Geiger:

I've heard you speak multiple times at national conferences like The Reading League and Plain Talk all about comprehension, so we're going to focus on that today. But before we do, could you introduce us yourself and share about your history and education?

Amy Elleman:

Sure. So I started off in Department of Defense Schools as an instructional aide. I won't even say, I stopped counting how many years now, but I think that now we're over at least 25 years that I have been in education.

I've had the opportunity to work at all different levels, which, I think, really helps with the perspective I bring to the research that I do.

I started off in Department of Defense schools at an elementary school in Germany. I learned from the best of the best during that time that I was there. I taught third through fifth grade as an instructional aide.

At the time I was getting my bachelor's in psychology and I was getting a minor in education, and I realized that the classroom was this great place to see all the things I was learning about psychology and about learning that could be applied to the classroom.

I did that for a number of years, and then I came back to the States in North Carolina and started working in a seventh grade classroom for students with learning disabilities.

That's where I met a young man named Clifton. He was this wonderful kid, like the kind of kid you want to take home, you know, just so wonderful. Unfortunately though, Clifton could only read his name, and I realized that I had no idea what I was doing. I was like, "I don't know how to help him."

I started researching, and this is back in the day where I'm at the parent/teacher store. The internet was just new.

Anna Geiger:

I remember those days.

Amy Elleman:

We have all these wonderful resources up now, right? Those were not available, so I'm trying to find out what should I do.

I ran across, thank goodness, systematic explicit phonics.

I start working with Clifton, creating my own materials for the most part, trying to follow different scope and sequences.

I found that he started to make gains, but they were slow, like definitely slow, working one-on-one with him. It was really not until that second semester that we got going, because I didn't know really what I was doing.

I look back and I go, "What could have happened if I had been trained on day one? Would he have made more gains?" Because he was probably at a first grade, early second grade level when I was done. But I didn't expect it, going into a seventh grade classroom.

I ended up, after that, coming to Nashville, and I was working at a school for students that were zero-toleranced out of their home school zone. A lot of them had behavior difficulties. During my interview, I was going up for either the ADHD classroom or the ODD, oppositional defiant classroom, and I was hoping for the ADHD classroom. I got the ODD classroom. Maybe you need to rethink your career path when those are the options in front of you.

But I have to say, I learned more about myself, my teaching, my behavior management certainly, and also how to relate to kids and understand kids. It was a steep learning curve, but it was a good couple of years working with those kids.

I look back now, and I don't know that I had figured out how to teach reading, but I was much better at doing those foundational skills and had a handle on that.

But what I was finding is that the kids were at all different levels, because there is this co-morbidity between ADHD and reading difficulties and certainly behavior problems and reading difficulties. A lot of the kids had a lot of needs, and the school is really set up to deal with those behavioral needs, and not so much the reading piece.

But I knew from the work that I'd done before how important it was to get that for kids, so I started teaching as a reading specialist for a while and was really working with those kids with those foundational skills.

What I realized is that I really didn't know what to do with kids when they were having comprehension issues. They would be reading a story, and usually that was reading aloud because I had so many different levels in the class, and they really did not understand what was happening in either narrative or expository text. I couldn't figure out why. My strategy was just to read it again.

Anna Geiger:

Exactly.

Amy Elleman:

Like that was going to do something!

I always do reading inventories. I want to know what kids like to read, and of course, in classes like this, the kids don't read. So I ask, “What are your favorite movies? What do you like to watch?”

I would always get responses of movies that they shouldn't be watching. They would come in and they’d tell me about these movies and their focus was on this great car crash, and this thing blew up, and this happened.

I'm like, “Well, who is the main character?”

“Oh ,well, there's this guy in it.”

“Well what was he trying to do?”

“I'm not sure.”

And so they really weren't understanding narrative, even in those things like movies or TV.

Now I look back and know we have background knowledge, we have understanding story structure… There are a number of things now looking back that I'm like, “Oh, that's why they were struggling.”

I went back to school to find out how to help them and hopefully go back and really do a much better job.

I fell in love with research. I went to Vanderbilt, and the research piece was so cool. I walked into a SSSR, the scientific studies of reading, poster session, and I was like, “Oh my goodness, this is like a science fair for adults based on literacy, trying to solve this huge problem that I've been thinking about for a very long time!” I was hooked.

I ended up getting my doctorate there. I worked on a couple of federal grants with some great people and ended up then at Middle Tennessee State University doing what I do now, training doctoral students to translate research to practice for both pre-service and in-service teachers. We work in an interdisciplinary program where we're really trying to look at a multifaceted lens around this problem so that we can hopefully start to make gains and get that knowledge into teachers’ hands that I would have loved to have had when I was teaching.

Anna Geiger:

So you've kind of touched on this already, but maybe you could talk a little bit more about why comprehension is so complicated, and why we can't count on kids understanding either a movie or a show or a book, even if they know what the words mean?

Amy Elleman:

That's right. We do know that your ability to understand in a visual format, like movies, or in a listening format, like hearing a book read aloud to you, or while you're reading, those all are highly correlated. We know that your ability in one will predict your ability in another.

It's really about discourse. It's about communication and language. When you have a problem with language and you don't understand how discourse works in the different formats we have it, it's really difficult then to understand.

There are so many different models out there for this. One of the process models that I think a lot about is Kintsch's construction integration model.

You were talking about the words off the page, and that's just the first level of that model, right? We have to recognize those, or we're dead in the water if we can't do that, at least when it comes to reading comprehension.

Then we have the next level of that is really the text-based level, and this is where we're getting the basic meaning of the text. There might be a little bit of inference going on within the text, but really this is like just getting the basic meaning of what the text is saying.

But what the author really wants you to leave with is what we call a situation model. It's understanding the true meaning behind the words. Authors can't write everything that's required in a text to understand it, otherwise everything we read would be like reading a manual which would be quite boring and almost impossible to do.

Even in that situation, I think anyone that's ever read a manual and tried to put anything together knows that there are gaps even in that information.

But authors leave those gaps. They have to and they have to believe that the reader is going to fill those in using their background knowledge. It requires this information, this construction, this integration of the reader's background knowledge and what they're reading in the text. It's weaving those two things together to form a true situation model and what the author intends.

This has to be done repeatedly through the text because you're coming across new ideas and incorporating those new ideas as you're moving through that text. This makes it really difficult if there are any issues that you're having with understanding. Obviously, as new information is added, it makes it more difficult if you can't integrate that, if the previous information isn't correct.

Another really great model for this is the RAND reading model. Kintsch's construction integration model really gets us to the process of that, but we also have to think about that that process is occurring with the reader and the text, as well as the task we ask people to do with that. If we're asking someone to develop a website based on what they've read versus asking someone to answer multiple choice questions, those tasks are quite different.

We have the reader's ability interacting with the text and how complex that text is, but then we also have that task piece, which we don't talk a whole lot because I think we think about reading comprehension just being answering multiple choice questions on a standardized measure, but it's not. It's understanding it to be able to use it in real life.

There are different tasks that that requires. This is an interaction between all of these features, all happening in a sociocultural context, whether that's at the classroom level or at higher levels. This is a very complicated process.

At the reader level, we also have different cognitive abilities and language abilities that are at play as well.

If any of those areas goes wrong, reading comprehension doesn't take place.

Anna Geiger:

That's really hard because, like you'll hear from teachers, "The student is having a particular problem with reading comprehension, what should I do?" There are so many options, right? Which is why a diagnostic assessment can be really helpful.

Amy Elleman:

Absolutely.

Anna Geiger:

But one of the general things we know is that background knowledge is important, so maybe we could talk about that. What is the role of background knowledge in comprehension?

Amy Elleman:

New knowledge is dependent on prior knowledge. We know that to understand anything, you really have to have some outline of that topic or that concept to be able to integrate that new knowledge. The more you have of that, the easier you're going to be able to integrate that knowledge. You're going to be able to activate knowledge better, more appropriate and relevant knowledge quicker, and then you're going to be able to use that knowledge when thinking about the new knowledge coming in. Making inferences and understanding that text is so much easier if you have prior knowledge.

We see a high correlation, a very high correlation, between your prior knowledge and then your ability to understand a new text with that knowledge. Even brief information like giving people a title for a passage helps. Just that quick activation helps them to understand that passage better.

Deep knowledge networks are terrific when you have them. Being able to pull on that is great for students.

We have a number of meta-analyses that are coming out now showing that knowledge is absolutely important, and we get these moderate to large effects, especially when we pair it with strategy instruction.

We've dismissed, I think, knowledge for a while, or we had been, and now we're seeing definitely this resurgence of going back to and realizing how important knowledge is going to be over time for kids for later reading.

Our scores in adolescent literacy have really stagnated over the years, and some people would say that's because we have not focused heavily on knowledge early on. We spend a lot of time in reading and ELA classes, and I am a reading person, so I want us to have that time! But unfortunately, other things have been not addressed. We have less time in social studies and science, and those could be the key pieces that we're missing over time and why we see adolescent literacy really flat-lining.

Anna Geiger:

Thinking about knowledge, I think about two things we can do to help with that. Number one is we don't have kids go into text cold. We think about what might be the gaps in their knowledge and we build it even if that's just very quick, like two or three minutes. There are different ways to do that.

But then also there's the approach, which you sort of alluded to, like building more knowledge intentionally in the primary grades. Now there are a whole bunch of knowledge building curricula. Do you have any thoughts on that or any insights from research about how that's going or how it might go?

Amy Elleman:

As far as research goes, we have less on these programs than what we think. We have a lot of correlational data about knowledge and its impact on reading comprehension. We do have some

where we have specially integrated science curricula, where we have strategy instruction, but we also have knowledge building within that. We're seeing really strong effects from that on vocabulary and comprehension.

But as far as the curricula themselves, there hasn't been as much research as what I'd like to see to know those effects, especially the long-term effects. I think it's absolutely paramount that we're doing it, but I also think we need to be studying it and understanding how to do it better. I don't want to be in a situation where we're like, you know what, just throw all this knowledge at kids and then they're going to be okay.

Anna Geiger:

Right.

Amy Elleman:

Because we know kids, especially the ones with specific reading comprehension difficulties, they don't activate their knowledge and integrate it. That's their disability. They struggle with that. They don't self-monitor and self-regulate. They don't do those things. So if they're coming into new knowledge, how much are they gaining from that?

In what ways can we teach that better for them? Because they are going to require supports beyond just here's the knowledge and you're going to be okay if you just have all of this in front of you. We have to be careful that that's not what we're doing, and that we are giving them those strategies.

Any time someone's in a new area, and I don't know if you've ever... I have the habit of looking up things in medical journals maybe that I shouldn't sometimes. I mean, doctor's always warn against them. When you start to read the text, you realize where your knowledge gaps are, and then you do have to step back and start to go, "Okay, where are the text markers that make the text make sense?" I can look up the vocabulary, but the ideas between the sentences, when they aren't making sense, it's because I'm missing knowledge. But at least I know that, and I know to go find or try to find that knowledge, if that's the case.

Students who have reading comprehension difficulties, they're going to struggle with that new knowledge and integrating it into their prior knowledge without support.

Anna Geiger:

Yeah, and I think sometimes we can get a better picture of what that's like when, like what you said, adults tackle a text that's hard for them.

So I was unfortunately diagnosed with diabetes two weeks ago, so now I'm trying to figure out how to flatten my glucose levels so I can get out of the warning zone. I was reading about that, which is not my favorite thing to read about. I really haven't thought too much about how glucose works and all that.

In doing that, I was doing a lot of rereading, I was taking notes, I was going back, I was finding the main point, I was seeing how it all connected. Someone just reading that book to me would not have done the job. I needed to go back and rework it, and it wasn't even hard text to read! It was just new information that I didn't have anything to connect to.

You've already mentioned strategies, but I think, and maybe this is changing, but I would say in the last couple of years, strategies have kind of gotten a bad name. Do you have any thoughts on that?

Amy Elleman:

I have often talked about being careful of throwing the baby out with the bath water. It shouldn't be, and it doesn't have to be, an either/or. We have forty years of good empirical data, RCTs and quasi-experiments, to tell us that strategy instruction is useful for kids. We get a small effect on standardized reading comprehension measures and then a pretty moderate effect on custom measures.

We can pretty much say that strategies help kids and especially kids who have reading difficulties.

Have we spent too long and in what ways are we teaching strategy instruction? Absolutely. There are problems with it and how it was translated to the classroom for sure.

But we do know from studies that strategy instruction is important for kids. Maybe that means that younger kids get something different than older kids, kids who have reading difficulties get more supports in those strategies than other kids, and that strategies may change over time. We can come from more general strategies, moving to more disciplinary strategies later.

Those are supports that students have been shown help students, and so we want to make sure we're continuing that in conjunction with knowledge development, with activating that prior knowledge, but certainly building that knowledge while we do that.

We've had a movement towards using more expository texts in ELA. I think that's really good. We still have to, of course, teach narrative and those pieces because it impacts a lot of people's lives. We deal with narrative a lot in our life, so we need that still. We've got to do that, but we also should be building those expository texts over time. We need to have kids in those.

We also need to be pushing kids into more complex texts. Like you said, strategies only become really important for most people when pushed to use them, right? Then if you don't have those skills, that could be really difficult. We need to teach strategies and we need to do it in complex, challenging text for kids.

How we do that? I don't know that the literature has told us exactly how to do that. It's very all over the place when it comes to text complexity. That's an area that we are definitely in our lab concerned with and talking about and starting to dig deeper into, because you've got to have kids practicing in text that is challenging them enough to use the strategies that you're teaching.

Otherwise you're just teaching strategies to teach strategies, because you want them to get the main idea. But that's not the point. You want them to be able to use main idea in real life to help them understand the message of the text. To do that, kids need to be in challenging materials to do it.

Anna Geiger:

That's the key point, I think, which I've talked about before. The idea is not to master the strategy; it's to understand the text. We choose the strategies in service of the text.

I remember my first year of teaching, I taught a combination third, fourth, and fifth grade classroom, and I had a small group of fifth graders who were all very bright and good readers. I had this big basil that I was supposed to use, and one of the workbook pages was something like, “Ernest came down from his bedroom, sat down at the table, and had eggs and cereal and toast.” The question was, “Which meal was it?”

I think that was supposed to be inferring, but the students could answer this in their sleep, so why are we doing this?

Amy Elleman:

Right. Exactly. Yes.

Anna Geiger:

I think I've heard Shanahan talk about that, how the push on strategies was from textbook companies who said, "Oh, research says we should do strategies, so here's how we're doing that," and it was just a lot of isolated work.

I think inferring is a really hard one to understand how to teach. That's something we talked about in advance that would be kind of a focus of today's interview. Let's get into that.

First of all, do you have any other thoughts about ways *not* to teach inferring, like the one I just gave?

Amy Elleman:

Actually, that was a great question. I've never had anyone ask the question how *not* to do something. That was terrific.

It segues right with what I was saying that a lot of the inferencing materials are just too easy, just like the example you gave. That is exactly the opposite of what we want to be doing.

We need to be able to show and model what the skill is, so it needs to be easy when we present it, right? But beyond that, students need to be practicing in challenging texts to use those strategies or they're not going to use them in real life. They're not going to generalize or transfer that skill.

I've seen teachers talk about referential cohesion, which is the cohesion within a sentence or between the sentences, and pronoun resolution is one of those. It's knowing that "Peter" is "he" in a story. That's easy for most kids. For young kids, I might teach that.

For older kids, they're going to do that naturally. They're not going to need it taught to them. I've seen teachers actually teach that because they've been told about referential cohesion. They're like, "Oh, I need to make sure I do this. Who is 'he' in this sentence?"

In an easy text, we don't need to do it, but if "he" and "Peter" have a lot of text between those two, between the pronoun and the antecedent, then it becomes something that is useful to teach and know for kids. It's also good for when there are multiple characters or when the syntax is complicated.

Those are all times where this is a skill that's useful, but it's not really useful, and the kids won't see it as useful, when they're like, "Well, yeah, of course!"

Part of that problem is also you've got all these different levels in a class, so how do you know? That's difficult, so I'd always be pushing more on the challenging text side than I would be on the kids that may be struggling with that. I think it's better to try to push a little more rather than do the easy ones, because the kids aren't going to find it useful.

They're not going to transfer that skill. It's really a waste of time at that point and probably is part of the reason strategies have gotten a bad name because it is just to do the strategy and not to do it in service of understanding the text.

Anna Geiger:

Yeah, that makes a lot of sense. I don't even think I mentioned it, but maybe we should define inferring, talk about why it's important, and then go into ways to teach it.

Amy Elleman:

Inference making is this process of integrating information with one's general knowledge to fill in gaps in discourse. We've kind of talked about where those gaps are, but really with inference making, you're activating knowledge and then integrating it with what you're reading or hearing.

In any act of written or spoken communication, we know that inferring occurs. It is one of those skills that we would not be able to get through the day without doing.

Most of us do it naturally and it happens very automatically. I think this is where I had trouble when I was working with kids, they're reading and I don't even see the gap because I've made the inference. I don't even know that the gap exists.

Now I know to read and look for gaps from their perspective, but for a good reader, you fill in those gaps automatically.

We have different types of inferencing, which is really interesting. This was way back, but when I did my dissertation, I was looking at different ways to model inferencing and how many different types were there. There were like 15 or 20 different ways to conceptualize inferencing.

The most common, I think, that we've come down to now are called text-based inferences. These are those referential cohesion pieces that I was talking about. They are within the text and across sentences where you might make those kinds of inferences. Usually these do occur automatically for most, unless there's a language issue going on or the text is really complicated.

Then we have knowledge-based inferences. These are those bigger, what I call macro texts, inferences where you're seeing cohesion across multiple pieces of the text, but you're bringing your knowledge in to make those inferences. Both of them actually require some knowledge, but this one is definitely more knowledge dependent than the referential text-based inferences that can be made.

I do think inferencing is the heart of comprehension. When you talk about the construction integration model, that is the heart of comprehension, right? It's being able to activate relevant knowledge, suppress irrelevant knowledge, and then integrate and construct new meaning from what you're reading.

For me, if there was a strategy, and different types of strategies, to teach, they would all be centered around that.

Anna Geiger:

Okay. I guess my first question is, can we teach inferring outside of a text or should it only be taught within a text?

Amy Elleman:

Oh, that's a great question too. I think that our first experiences should probably be outside of a text or with limited text.

For instance, teaching kids about jokes. Jokes require inference and they require those knowledge-based inferences to understand. It's one way to bring it up, "Okay, here's a joke. This is why the joke works, because you're having to make an inference." That's a fun way to do it.

Cartoons are also terrific. Visuals and cartoons where they have to link ideas so that they can understand. Just like I didn't know how to reflect on my own teaching and be able to help students understand what they were missing, right? Reading it again didn't work.

Having them reflect on their own thinking allows them to realize what's happening there, that that's where the inference is made. It's when we're connecting this new information to make sense, to fill in this gap that's missing, right?

Either the joke or the cartoon, or graphic novels are terrific for this as well, because they require a lot of inferential processing. There's no text to give, so you really have to study the visual to understand what's the next piece, and why are these pieces here, and why are they even presented in the way they are, the visuals themselves. They require a lot of cognitive processing and inferential processing. Graphic novels could be very useful for this.

I haven't seen any studies though, so I don't have any hard data on that. There were some studies done in the 90s about jokes and cartoons, so I do have some data there, very little, but there is a little bit there. The graphic novels, I would love to see some more work done on them. I know people are looking at it. I just haven't seen a good RCT yet about graphic novels.

I think that would be a great way to introduce what inferencing is to each level of kids, for little ones the jokes and cartoons and older kids, the graphic novels. That's the first step is just to understand what's happening and why it's important.

Kristen McMaster is actually doing some great work. She is teaching younger kids in a visual format and seeing gains then in those written and read aloud formats. I have a student who's working on a project about that right now.

I think that's very definitely an area that needs to be explored. I think that it just makes sense and it's fun, so I think it's a good way to teach inferencing.

Then teaching them how to use text clues is beneficial. Finding certain signal words in the text certainly helps. Having them self-question while they use those text clues I think is important.

For instance, asking questions like, "Why is this character acting this way? Why would the author repeat this information right now in the text?" You might be one on the character side and one on the author side, always questioning the text.

Then always asking yourself, "Does this make sense?" That's that self-monitoring piece that's so important that we always want a confirmation. "Does what we're thinking about make sense? Does it fit with my theory of what's happening in this text?"

We have a program called Reading Detectives. It's a 10-hour program. We've done it with third through fifth actually, and then we've also done it with sixth through eighth grade students who have reading difficulties. They were ones that were identified as having reading difficulties. We saw that on a standardized test, they made very good gains. We had the effect size of around 0.4 in 10 hours' time. That's a substantial amount of progress for them.

These were the strategies that we were teaching them. We taught them how to use text clues. We taught them how to do what we call perspective-taking, because we wanted them to think like a reading detective. Here's the character. Here's how the character's acting. Is any new information coming in? Is it in alignment with how they should be acting or against it? Going through…

And I didn't tell you, so sorry, this particular program requires them to read three texts. We have short texts to introduce the skills we're going to use in the novels, but then we have three novels or texts that they read, two narrative and one expository novel.

We're reading the expository daily along with the narrative text, so that we are building knowledge as we're teaching the skills, because both are so important.

We don't want to teach those strategies in isolation. It just doesn't make sense to do that. We need to teach them while we're building the knowledge, because otherwise, if you're going to make inferences,

you need the knowledge to make the inferences. If the kids don't have that knowledge, you can't teach the skill, unless you teach it at a very basic level in text that isn't very complicated. And obviously that's not what we wanted to do.

We would teach them to use text clues. We would teach them to use context clues to figure out unknown vocabulary. Remember, we're not working on foundational skills, but we're working on understanding central key vocabulary and using the text clues around that vocabulary to clarify that. We do that first.

We were teaching those skills like text clues and perspective taking with the kids, and always asking, "Why is this happening now? Why is the author repeating information here? Why is this important?" That why is really important to inferencing and getting the kids to start doing that on their own.

What was interesting is that a lot of the times, because we were getting the kids to activate their personal knowledge about a topic… What we were reading was about ancient Egypt, and in one of the stories there's a cat. We're activating their knowledge, we're stopping at key points in the story, we're saying, "Okay, does anyone have anything that you know is going to help us to understand this story? What knowledge are you activating?"

They raised their hand and somebody would say, "Well, my aunt, Sally, has a black cat."

We do know from the literature that this actually happens, especially for kids who have reading comprehension difficulties. They activate irrelevant information. We're not sure from the cognitive piece whether it's you don't have enough knowledge, or because it's truly that that's where your disability is, that you have trouble with the activation piece. We don't know exactly, but we know that students do this.

Again, Kristen McMaster has done work where she has kids that activate too much knowledge, irrelevant knowledge, and then kids that don't activate enough knowledge. It may be that we have two different kinds of kids that we're actually dealing with.

But we did find that kids were activating this irrelevant knowledge, and so we had to put another strategy in place. We're like, "Okay, I need you to think about, before you tell us about it, is this going to help us understand the story right now?"

We noticed by the end kids were raising their hand, but then they're like, "Wait, I need to hold that until after we talk about this, because it's not going to help us right now." They were able to do that.

I find that interesting that the issue may be different for different kids. Comprehension is so multifaceted, and we're still not sure exactly about the mechanisms and the individual differences for kids.

Does that someday mean that treatment may be different for different kids? Absolutely. Are we there yet? I don't know that we're quite there yet in thinking about how do we give different instruction to different kids, which would be difficult also in a whole class situation.

But one-on-one, I think we could do that diagnostic work, and we are doing that diagnostic work to figure out kind of what's missing for certain kids and helping them with that.

Anna Geiger:

Listening to everything you just said, what I took away from it, and you can tell me if I'm wrong, is that it's not that we teach inferring, but we teach subskills that will allow students to make inferences. Would that be true?

Amy Elleman:

Yes, that's right. That's a great point, Anna. Yes, because it's not about teaching specific types of inferences and then practicing those to get those answers correct. It's using it to understand the text. These are inferential processing skills that allow you to fill in those gaps.

Anna Geiger:

Yeah, and the things that you talked about would be things like helping them make connections across sentences, like in a more complex text, figuring out what those pronouns are referring to. Teaching them to be aware. If you're working through a complex text, stop and note those pronouns and ask them, maybe if they have a piece of paper with the text, draw an arrow back to what it's referring to.

You also talked about stopping periodically to ask, "What do I already know that can help me understand this and actually talk through that?"

You talked about asking yourself questions as you're reading. You'd be, of course, doing a lot of modeling of that. You'd be asking all the questions at first, but maybe they could eventually, as they learn to do this, ask a partner a question or ask themselves a question.

Anything that I missed or anything else you would add in terms of building inferences?

Amy Elleman:

No, that's great.

The two other pieces that we incorporated in our program was to make sure that they were providing evidence. We're getting them to activate between parts of the text and with other texts. We wanted them across texts to make connections and within texts.

Then we needed them to provide evidence. What's important right now, and why is it important? How do you know that? Kind of going deeper to, "Can you provide evidence for why you think this is going to help us fill in these gaps that the author has left for us?"

Then we really pushed on practicing answering inferential questions.

We know that according to the research, just asking more inferential questions can help. Making sure that we're not spending as much time on those literal pieces, but those inference questions, getting to the deeper meaning of the text, may be more important than those literal questions.

I also think that if you teach kids the inference questions, they have to fill in the gaps with the knowledge questions, the literal questions you were going to ask before, because it's required to make the inferences to know what knowledge is there.

I think that making sure that we're getting them to answer those inferential questions in practice, that is important.

When I was teaching, we would read a passage, or I would read a passage, and then I go through the questions and I would... If you have five questions, that was typical because... I was doing this in isolated texts, we were changing the topic, which is a terrible idea.

Now we know that we want to build knowledge. Whatever we're working on should be themed so that we're building knowledge; we're not just learning main idea with different texts.

Well, I didn't know what I was doing back then. We'd have a passage and then we'd have five questions after the passage because we're learning about main idea or whatever it was. The first three questions are usually literal questions where you can just go back. They had trouble with that, so I would be

scaffolding that. By the time we come to question four and five, which were the inferential questions, I'm just pretty much giving them the answers.

Now I know that I should have started, I believe, with those questions. I should have been waiting for them and not scaffolding, because they could do it. Of course, I would have been teaching those skills.

But I think a lot of times, because it's difficult, especially if we're working with kids who have reading difficulties, that maybe we scaffold a little too much instead of waiting and letting them work through those pieces. We need that constructive struggle happening.

I don't know that I was doing that, because I just figured the inference questions were too hard for them.

Anna Geiger:

Yeah, and when I look back to my own experience as well, I knew I should ask high and low level questions, but I didn't have any of these other tools for helping them make sense of the text in the first place. So I'd asked them these inferential questions, but I wasn't building the subskills because I didn't know what they were.

Amy Elleman:

That's right.

Anna Geiger:

Well, good. This is going to give teachers a lot to think about.

Do you have any final words or resources teachers might go to for learning more about building comprehension?

Amy Elleman:

That's a great question.

Anna Geiger:

It didn't give you that one in advance!

Amy Elleman:

No, you didn't!

I'm always going to say, if you're interested in research, actually no matter what, I would go to the What Works Clearinghouse, number one. Their practice guides are essential. Everything you've ever wanted to know is really distilled nicely in those practice guides. There are a number of them on reading comprehension. I think that's my first go-to.

I also like places like Reading Rockets.

I'm thinking so much about text complexity these days, and there's a great set, Coh-Metrix, that does a great job. You can look at text and look at the referential cohesion level, what they call global cohesion. You can look at the narrativity of it, the concreteness of the words. It gives you five really nice pieces. The only problem is you've got to put your own text in that system.

I also go to Lexile's. I use their book bag a lot to find text that is topically related and has the Lexile for me. I'll use both of those.

Newsela is also a great site because they take news articles and then you can have them at different levels of text complexity. That's really nice for being able to choose because text, I think, is one of the more difficult pieces to put together in having those text sets. You want that theme knowledge and then you also know that the text is at the right text complexity, or you're challenging kids enough with that text complexity. I think that that's important.

Freddy Hiebert also has a great site called textproject.org. I use that one quite a bit as well.

Anna Geiger:

Well, thank you so much for sharing everything you know. This will be very useful for teachers, and hopefully we'll talk again!

Amy Elleman:

Thank you so much!

Anna Geiger:

You can find the show notes for today's episode at reachallreaders.com/episode198. Talk to you next time!

Closing:

That's all for this episode of Triple R Teaching. For more educational resources, visit Anna at her home base, reachallreaders.com, and join our teaching community. We look forward to helping you reflect, refine, and recharge on the next episode of Triple R Teaching.