



## Interventions in RTI – Webinar Transcript December 9, 2009

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*Whitney Donaldson:* We are fortunate to have Dr. Erica Lembke with us today. Dr. Lembke is an associate professor in the Department of Special Education at the University of Missouri, a trainer for the National Centers on Progress Monitoring and Response to Intervention, a researcher with the Research Institute on Progress Monitoring, and an officer on the National Board of the Division for Learning Disabilities. She is currently a co-PI on a federally-funded IES grant to examine the use of handheld devices to conduct mass progress monitoring and administer mass diagnostic interviews.

Dr. Lembke has numerous publications in peer-reviewed journals on the topics of curriculum-based measurement and response to intervention. She has presented over 100 national and international and state presentations on the topics of progress monitoring and response to intervention. Her research interests include designing and implementing CBM in elementary and secondary grades and developing strategies to improve elementary students' academic performance.

Prior to her graduate work, Dr. Lembke was an elementary special education teacher for six years working with students with learning disabilities and mild mental retardation. We are very fortunate that she is sharing her expertise with us today. Now I will turn the presentation over to Dr. Lembke.

### **Slide 1: Interventions in an RTI Model**

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*Erica Lembke:* Great. Thank you so much, Whitney, and thank you all so much for joining in today. Today we have just a little bit less than an hour and we have a lot to talk about, so hold on tight and we're just going to fly right through. Understanding that I have a little less than an hour, much of what I talk about today will just be a quick overview of some of these interventions. And I hope to also give you resources and places to go after this call to find out more information.

I want to mention also that there are slides and handouts for this presentation. You can access the handouts by going to the top bar, sort of launch bar of your screen. There are three little sheets of paper to the left of the yellow notepad. And that's where the handouts are. You can go down to the bottom of your screen. There's a printer icon and that will allow you to print the PDF slides of the PowerPoint. In addition, this will all be available online following the presentation.

(Available at:

<http://www.rti4success.org/images/stories/webinar/interventions%20in%20rti%20handouts.pdf>).

### **Slide 2: Overview**

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Today I'm going to first spend just a bit of time talking in general about research-based practice, evidence-based practice, in RTI and some characteristics of what good teaching needs to look like within that. Then, I'm going to move on and spend quite a bit of time talking about reading strategies in particular and, then, finally finishing up with strategies in mathematics.

Due to time constraints, I won't be able to speak in detail. I will talk with more detail about reading and a little bit less detail about mathematics. However, I would encourage you to refer to Dr. Russell Gersten's recent Webinar on the National Center for RTI Web site for more strategies in the area of mathematics.

### **Slide 3: What do we mean by evidence-based practices?**

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I first want to talk about what I mean and what we mean when we talk about evidence-based practice because it's not always the case that everyone has the same ideas about what evidence-based practices are.

And so we're looking for, most importantly, research that has been published in peer-reviewed journals, meaning that it's gone out to experts in the field, that the research has been vetted, and that we are more certain that it will be effective with the population that we're working with in our classrooms. And also that it has generalizability, meaning that it's been replicated in a variety of settings. We hope that the procedures are clearly described so that we could go back and replicate that intervention in our classroom.

And we really want the research to have a control group. This means that the intervention was given to one group of students that got the good stuff and then another group of students (the control group) who didn't get that particular intervention and then the results from those two groups were compared. So we're really focusing on a particular set of characteristics when we talk about evidence-based practice.

### **Slide 4: Key to instructional success...**

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The key to all of this, the key to intervention, of course, is not necessarily picking the right intervention or spending a lot of money on a particular program. The key is really the teaching. And so as we proceed forward, it's important to remember that what I provide to you today is not going to be a checklist – where you can go back and say, “Check that, I did that for two weeks; check this, I did that for two weeks; great, we're done with intervention.”

It's really effective teaching practices that are put in place at all levels. You know, if we're talking about an RTI system, we're talking about effective differentiated instruction at Tier 1, we're talking about effective classroom strategies and follow-up for students at Tier 2, we're talking about effective teaching of Tier 3 students in smaller groups with more intense instruction.



### **Slide 5: Explicit teaching procedures**

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So we need to keep in mind some important characteristics, including explicit teaching and systematic teaching procedures. Explicit teaching procedures control the content, by using guided practice make sure that the examples you present to students include both discriminatory examples and introductory examples.

So we really want to think about that model/lead/test that perhaps we learned about in our training programs – the tried and true. We need to continue to think about how we can engage students by modeling, leading them through guided practice, and then giving them some independent practice or an independent task that they can work on themselves.

### **Slide 6: Systematic teaching procedures**

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In the same way, we want to think about that good teaching practice as systematic. And I'll give you a better example of this in just a little bit when I talk about phonics and reading, but we're talking about teaching pre-skills, really scaffolding instruction, thinking about how high utility skills are introduced before less useful ones and then really trying to separate the teaching of information that students might likely confuse.

### **Slide 7: Selection of intervention**

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So we're thinking about that explicit and systematic teaching (and it really is the teaching that makes the difference) as we move into intervention. Our next step is to think about how interventions are selected. And I would be remiss if I just moved into a discussion of interventions and didn't talk a little bit about how you select those interventions and also about treatment fidelity.

The interventions that I'm going to be speaking about fall generally under what we would call, in RTI, a problem-solving model – individualized interventions for students.

The interventions I'm going to be speaking about are not necessarily programs or purchased programs, although I will give you some resources for places to go to access some of those programs if you should be in need of those.

I can't take it for granted that all of you have piles of money to purchase those programs and so the things that I'm going to be talking about today you can generally implement in your classroom with little to no funding.

The interventions that we select need to be informed by the data. We need to use screening data to identify who's at risk. We use our progress monitoring data to determine whether the intervention is working. And we use diagnostic data to determine in what area or with what skill



to intervene. I will show you a diagram in just a moment to illustrate these three purposes of the data.

### **Slide 8: Using data to guide intervention selection**

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I want to mention that as you're thinking about this screening and progress monitoring data, the National Center on Response to Intervention actually does a review of tools for these purposes. And they have posted those review results on the National Center Web site. So you should access those as you think about tools that your district might use for that screening and progress monitoring purpose. (Available at:

<http://www.rti4success.org/chart/screeningTools/screeningtoolschart.html> and <http://www.rti4success.org/chart/progressMonitoring/progressmonitoringtoolschart.htm>).

So when we think about screening, it could be CBM screening, curriculum-based measurement screening; it could be some type of standardized national or state test. We're using this to think about how our students compare to national benchmarks, state benchmarks, district benchmarks.

When we get down here to progress monitoring, we're talking about this ongoing assessment of students to determine how the intervention is going for students and that is paired with some diagnostic work to inform what we might need to change, what skill we need to work on next, what specific skills I might need to master or reinforce.

And if you want to make a note to yourself, there are some examples of diagnostic assessments on pages 5 through 12 of your handouts. I won't be able to actually show you all of these examples as we go along today, but be assured they are in the PDF of the handouts and you can certainly look at those, too, to get some examples.

### **Slide 9: Making decision-making about intervention less subjective**

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Moving next then to thinking about - once we've really thought about the teaching that's in place - we're thinking about the data that we're going to use to inform our intervention. And we really also need to keep thinking about and using data and database decision-making to inform our decisions about when to change intervention, when to implement intervention.

I've created a brief, and I will say draft, decision-making rubric that a school district or a problem-solving team might implement. Even a grade-level team could implement this. An example of this is on pages 2 and 3 in your handout packet. Basically a team would meet, think about the student's current performance, talk about a decision-making rule that could be applied to the student's data, and then next, of course, think about, if a change does need to be made, what can be done.

### **Slide 10: Making decision-making about intervention less subjective, cont.**

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As the team considers what might need to be changed, it's very important that they continue to think about these questions below. They want to continue to think about the intensity, the



fidelity, the evidence base, and the duration of the intervention. And so they continue to question those items even as they consider that the rubric has suggested to make a change.

### **Poll 1: How does your team determine when an intervention should be implemented or changed?**

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Let's stop for just a moment. I want to ask you about how your teams determine when an intervention should be implemented or changed. I've described a rubric that might guide decision-making.

Vote now and tell me: do you decide this arbitrarily during teacher suggestions from the team, using data, or does it vary by student? And I understand that you may use several of these, but just pick the one that you use most often. So you'll have just a few seconds. Go ahead and vote on that now.

I'm so pleased to see, and as you can see as well, that the majority of you did say that you use data to determine when an intervention should be implemented or changed. In fact, an overwhelming majority of you said that you're using data. And so I want to continue to encourage you to, of course, use data, but also continue to be very systematic about how you're using data, how that fits into your problem-solving team process. And I hope that something like the rubric that I've just mentioned might help you continue to systematize even more than what you're doing now.

### **Slide 11: Treatment fidelity**

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Of course, when we talk about intervention, I again would be remiss if I didn't talk a little bit about treatment fidelity. We know that one of the key components of RTI is lack of response to validated instruction implemented with integrity, two big pieces.

And so if we have a great intervention, a very well researched intervention, but we're not checking on how it's being implemented (the treatment fidelity – is it being implemented as it should be implemented? is it being implemented as the researchers have suggested?), then we're losing a big piece of the effective intervention of that integrity, that treatment integrity.

And so I want to continue to encourage you as individuals, as schools, as districts, to continue to think about treatment fidelity and how you can monitor that.

### **Slide 12: Fidelity of implementation - critical to intervention success!**

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There are a variety of ways that you can monitor that. I've given you one example of a fidelity checklist in your handouts on page 4. And you can think about using fidelity checklists within your problem-solving team, as individual teachers.



### **Slide 11: Treatment fidelity**

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If I might just go back to the slide before: the way that we check on treatment fidelity could be done as a self-monitoring process, as a colleague-to-colleague process, or as an administrator checking in. So, there are a variety of ways we can do that.

The checklist that I gave you in your handouts is a self-monitoring checklist just as one example to get you thinking about how you might do this. In addition, many evidence-based programs also provide treatment fidelity checklists with those programs.

### **Poll 2: How many of you monitor fidelity of implementation of intervention and if so, how?**

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Think about this question -- how many of you monitor fidelity of implementation of intervention? And if so, how? Indicate whether you do not monitor; whether you use self-monitoring checklists; video monitoring, in which case the teacher might video him or herself teaching a lesson and then watch it; peer monitoring; colleagues monitoring each other; or an administrator doing walk-throughs and monitoring using a checklist. Go ahead and vote on that now.

Okay, a more mixed result on the fidelity issue. I think that with a lot of schools that I work with, this is definitely an area of next steps in RTI. Some of you indicated that you don't monitor. Others do use self-monitoring checklists and others actually have administrators go through and monitor fidelity of implementation.

It's an important concern and I encourage you, as you're thinking about great interventions to implement, to continue to also think about how you can monitor the fidelity of those interventions.

### **Slide 13: Interventions in Reading / Break for Questions**

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At this time, we don't have any questions. And I encourage you to go ahead and type some of those questions, if you have any, in the question-and-answer box.

Oh, I'm sorry, I do have a few questions. Let me take just a couple of those questions right now. And one of the questions was asking whether the strategies were for high school.

The strategies that I'm talking about today, the interventions in reading that I have coming up next for instance, are strategies that would be effective and useful for students that are struggling with reading in general.

And so if you have students that are in need of decoding help that are sophomores in high school or that are third graders, these strategies would be effective.



Certainly there are documents out there that particularly address strategies for adolescent learners. And I've highlighted some of those in the resource pages in the back of my handout packet. Those resource pages begin on page 25 in the handout.

And also I might alert you that on the What Works Clearinghouse Web site, which I'm going to show you in just a minute, there is a Practice Guide posted for adolescent literacy in particular. (Available at: [http://ies.ed.gov/ncee/wwc/pdf/practiceguides/adlit\\_pg\\_082608.pdf](http://ies.ed.gov/ncee/wwc/pdf/practiceguides/adlit_pg_082608.pdf)). So that will give you some ideas.

One additional question that I might answer, let's see, right now there are a couple of questions about fidelity and how often fidelity should be monitored and then what would be the recommended procedure.

I think that checks should be conducted – you would have to decide that as a school – but certainly checks would need to be conducted more frequently when you're implementing a new intervention. So you might say okay, we're trying this new program or new intervention, so we're going to conduct fidelity checks every other week. Whereas if it's an existing intervention that people are fairly familiar with, that you've been using for a while, and you've already looked at the fidelity of those for a while that you might be able to move even to once a month. You would want to establish a schedule and stick with it. It could be that a principal already has a routine of going to visit classrooms on a certain frequency and so the fidelity checks become a part of some of those visits.

Someone also asked about progress monitoring. There are some questions about what progress monitoring tools might be used for monitoring particular types of interventions.

It's important to remember, when we're thinking about curriculum-based measurement screening and progress monitoring tools (and those are the most technically adequate tools for screening and progress monitoring and have the greatest amount of reliability and validity to support their use) that we're not so concerned about the measure that we use and how it connects to the particular intervention. For instance, one of our best progress monitoring tools in CBM is oral reading fluency, but it doesn't mean that I only use CBM oral reading fluency to monitor the effectiveness of fluency interventions. I can use oral reading fluency to monitor overall proficiency in reading. It could be that we have a student in intervention for comprehension and I'm also monitoring his progress using oral reading fluency probes.

So those probes are researched and standardized to serve broadly as indicators of **effective reading proficiency**. If you'd like to know more about those CBM measures, I'd encourage you to go to the National Center on Student Progress Monitoring where they have a library with lots of resources on CBM. (Available at: <http://www.studentprogress.org/weblibrary.asp>).

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**Slide 14: Sample sources (also see your handouts)**

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I'll answer more questions in just a little bit. I'm going to move on and talk quickly about some interventions in reading because that's what you're all here for interventions.



These are a few examples of some of the websites that I was referring to earlier: the What Works Clearinghouse has practice guides; Google Scholar is an excellent way to find research-based, peer-reviewed references for interventions that you're considering; and the Doing What Works website is connected with What Works Clearinghouse – it's to help make those interventions more accessible to practitioners. (Available at: <http://ies.ed.gov/ncee/wwc/>, <http://scholar.google.com/>, and <http://dww.ed.gov/>). So you might check those out, as well as the handouts –resources and the handouts that I mentioned earlier on pages 25 through 31 of my handout packet.

### **Slide 15: National Reading Panel Findings on Critical Areas of Literacy Instruction**

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As we think about interventions in the area of reading, we have to go back to the findings from the National Reading Panel, which really focused on those critical areas of literacy, the big five, if you will. And I'm going to go through and just talk about each of those and a couple ideas for interventions within each of those.

### **Slide 16: Critical Dimensions of Phonemic Awareness**

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Phonemic awareness is really at the sound level. And so this is probably one of the only areas that we may think doesn't extend on up K through 12. It may be that actually students in those early grades are still working on phonemic awareness, but we hope by the time that students move up into the middle and secondary levels that they've mastered these skills.

However, I will give you some ideas for ways that you could scale up phonemic awareness activities if you have older students that are working on them. Two of the best ways to work on phonemic awareness, of course, are through blending and segmenting. And a lot of these intervention ideas aren't rocket science.

I hope that for a lot of you, it will confirm things that you're already doing in your classroom, or if you've worked on these before but you sort of lost sight of them, it will help you refocus on these important skills.

Blending and segmenting are two of the most important ways to practice phonemic awareness. Remember, this is all at the auditory level, teacher modeling, student responding, blending being the initial skill, segmenting the next skill that students would work on.

### **Slide 17: Phoneme Deletion or Substitution**

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As we move through and think about skills that are more difficult for students, we move into things like phoneme deletion or substitution. So, deletion: I'm going to ask you to say a word and then say it again without one or more of its sounds – say 'fat', but don't say /f/; say 'plate' but don't say /p/. So as we move through, we make these skills a little more difficult for some of those older students that still need to work on sound play.



In the same way we could think about substitution. Say ‘plane’, but change the /p/ to /tr/ so it would be ‘train’. So we continue to think about how we can help students master that alphabetic principle, which is the combination of phonemic awareness and that letter-sound correspondence. That’s really the key to being a good later reader.

### **Slide 18: Phonics**

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In the area of phonics, the National Reading Panel found that systematic and explicit phonics is really the key to improving young students' decoding, spelling, and comprehension, and older students' word reading and oral text reading. Again, we want to think about how we can be systematic and explicit as we move through and teach phonics. So let me give you an example of that.

### **Slide 19: Systematic and Explicit Phonics Instruction**

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We might think about – and this goes back to my characteristics of explicit and systematic teaching, but within the area of phonics – we might first think about introducing the most common sounds for a new letter. So rather than introducing all of the sounds that a particular letter makes (here’s the letter C; it makes the sound /k/ and /s/), I introduce first the most common sound and practice examples and non-examples.

I might want to separate instruction of potentially confusing letters that look the same visually or sound the same auditorially. If you were a kindergarten teacher introducing letters, you might think that the most common way to introduce those would be in A-B-C order. However, in doing that, we’re introducing two of those letters that are most commonly confused, look the same visually, sound the same auditorially – B and D. It might be better to actually separate the teaching of those two letters. And so we think about how we can structure introduction of letters to separate these potentially confusing letters. It may be better, for students, to introduce them to lower case perhaps before upper case in that most of what they’re seeing in text is lower case, so it’s more functional.

And then we want to start with the high utility letters, the Wheel of Fortune letters if you will – R, S, T, L, N, E.. You know, we’ve got S, P, M. We want to make sure that we’re introducing letters that they can use right away in words, and that they can use those words then in short sentences. And we want to use words that start with continuous sounds that students can hold out and blend together. And so here is a potential sequence for introducing letters.

You can see that if I was introducing these letters in this way – during the first few weeks of school or the first few weeks of time I am working with a nonreader – you can see how many words the student would already be able to make with just those letters.

And so, as we introduce those lower case letters and capitals, you can see the sequence. And if capitals and lower case letters are visually similar, like S and s, V and v, we could introduce those at the same time.



So just sort of a notion of thinking more carefully about how we're introducing content, that we don't need to just introduce content the way that we always have because it sounds like a good way, that we want to be more thoughtful and practical about introducing content to students.

### **Slide 20: Fluency**

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In the area of fluency – fluency is highly important because it really provides that bridge between word recognition and later comprehension. And we know that oral reading fluency is not just reading fast, but includes elements of accuracy, rate, expression, and phrasing. And sometimes we call that expression and phrasing prosody.

### **Slide 21: Fluency Interventions**

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In the area of fluency, repeated reading is the highlighted intervention. Luckily it is also an affordable and easy-to-implement intervention. Students reading aloud after first hearing a model, students reading aloud after hearing a taped model, and students repeatedly reading the same text or story are all excellent ways for students to continue to have practice in getting more fluent and automatic with their reading.

We want to make sure, in order to build fluency, that we use text at the student's independent level. Many times fluency interventions are failing because text is too difficult for students. And so our first step is to make sure that we're selecting a text that's appropriate and at an independent level for students. We want to continue to highlight the effects of having punctuation in different places in the text, you know, those cues, those prosody cues, how that might affect their later reading. So as an example, a Lynne Truss book, *Eats, Shoots & Leaves*, highlights how a change in punctuation affects the understanding of the sentence.

In the *Put Reading First* document, which is a document that takes the National Reading Panel suggestions and puts them in an easy-to-understand and sort of easy-to-implement practice for teachers, they talk about lots of different types of fluency interventions, including partner reading and Readers Theater. (Available at:

<http://www.nationalreadingpanel.org/Publications/researchread.htm>).

### **Slide 22: Readers Theater**

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Some of you might have used Readers Theater in the past. This is a sample schedule for Readers Theater. I took this one from the CORE Reading Sourcebook; the reference for that is in your handout packet, pages 25 through 31.

Students in a Readers Theater play repeatedly read a play throughout the week, dividing up the parts, practicing different parts, and then finally performing the play. And I should say “performing” in quotations because I've seen this in a high school classroom as a performance where they just do their best reading sitting in their chairs at their desks.



I've also seen it in an elementary classroom where they actually perform it in front of parents, with costumes and everything. So there's a variety of ways you can do this. But it provides nice, structured practice for building fluency through repeated reading.

### **Slide 23: Vocabulary: Examples for Specific Word Instruction**

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I'm going to move on to vocabulary. And when we teach vocabulary, we know that there are many words that students learn indirectly. Sometimes they learn those words, but they still don't understand the meaning of those words.

There are also many words that we want to teach directly. Those indirectly-learned words are okay, but not always the words we want them to learn. And so we want to make sure that we have some strategies for teaching specific words. Three of those strategies are modeling, teaching using a synonym, and teaching by providing a definition.

We want to try, if we can, first to use modeling or synonyms in order to build understanding of a particular word. You can see examples. If you have a word you can model, you can use examples and non-examples of that word. If students know a synonym of the current word that you're teaching, you can use synonyms. Or if you can't use either of those methods, you can provide a definition.

In this case, in my example "exit" – "a door that leads out of a building" – we need to think about if that is the most accurate and effective definition. You have to be careful in constructing the definitions because I don't know that this is the best definition, so be real careful about constructing those.

### **Slide 24: Vocabulary**

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We want to continue to teach students how to use context as a clue, not just use the context to figure out the unknown word -- to actually use clues from context like definition, synonym, antonym, and gist.

Let me give you some examples of what this would look like. And I would encourage you to think about teaching each of these one and then the next. And so I might first only teach what a definition clue is, what that looks like, give examples of a definition clue, and then finally add in synonym clues next. So you would go through and teach - you wouldn't teach all of these at once.

### **Slide 25: Using context as a clue, examples**

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"The gentleman was very enigmatic. In fact, everyone agreed that he was quite mysterious." Think about what clue we might use to help define the word enigmatic. Well, we know that it says he was quite mysterious, so it may be either definition or a synonym clue that we're looking for.



One more, “Lori is very punctual while her sister is always running behind.” What kind of clue do we use? Antonym – that’s an easy one.

So we teach students to look for those particular clues in the text in order to define those unknown vocabulary words.

### **Slide 26: Vocabulary, cont.**

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We can also continue to give students examples of how words are used across context. This is a difficult skill for many students because they have trouble understanding the difference between literal and figurative language. This is an example of how we would actually demonstrate to them that words can be used in different contexts.

If I was going to introduce the word jersey to you and I asked what the word jersey would mean to a dairy farmer, you would respond with “a cow” perhaps. Then I would continue to ask you what the word jersey would mean to someone from New England? A football player? A seamstress?

And so we go through and we introduce to students these examples of different context. You could give students examples like this or you could have students make up examples.

### **Slide 27: Comprehension**

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We’ll move on to comprehension. And comprehension is the biggie. If we do all of the things that we’ve talked about so far, but we don’t have understanding of the story, then we’ve lost that most important piece.

### **Slide 28: One of the most effective ways to help students improve their comprehension (National Reading Panel)...**

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And we know from the National Reading Panel that these are some important strategies that we need to introduce to students. Many of the strategies that I’m going to introduce to you next, are incorporated, are different combinations of these incorporated into each strategy. This is the list, the important list that we need to be covering. And I think as you look through this, many of you would say that you probably cover a lot of these strategies already.

### **Slide 29: Teaching comprehension strategies**

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As we teach those comprehension strategies, we need to keep in mind how we’re teaching them. So it’s back to ‘teaching is important’. We need to make sure we’re providing a rationale for the strategy, modeling it, using thinking aloud.

I don’t know how many of you do thinking aloud with your students, but they love to get in your head, so to speak, and hear how you talk about strategies. So thinking aloud is a critical step,



then providing supportive practice and feedback, and finally letting them practice independently. It could be on the same example that you just presented.

And then finally teaching for generalization and maintenance – generalization inside their content areas in other parts of your day, maintenance, to come back to those strategies over time.

### **Slide 30: Pre-reading strategies**

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I'm just going to give you a taste of these strategies: our pre-reading, during reading, and after reading strategies. I've taken these or modified them from Kylee Beers' book, *When Kids Can't Read, What Teachers Can Do*. The book is actually highlighted as a text for students in Grades 6 through 12, but I think that you'll find that it would be an excellent resource for students at all levels.

### **Slide 31: Anticipation guide**

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Here's one example, an anticipation guide. This is a pre-reading strategy. And if you look in the handouts, I have an example of an anticipation guide from the children's book *Mufaro's Beautiful Daughters* by John Steptoe.

We create a set of generalizations about the story and have students indicate whether they agree or disagree with each statement prior to reading the text. They can either complete these on their own and then meet in partners or they can meet in small groups.

The major purpose is to activate prior knowledge, which we know is so important and is sometimes missing for students struggling in reading. So a teacher writes those generalizations and then students write whether they agree or disagree. And they can actually do this prior to, in the middle of, and after reading the story.

### **Slide 32: Probable passage**

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Probable passage is another example of a pre-reading strategy that has lots of purposes as you can see – making inferences, forming images about text. I've included the graphic for probable passage in the handouts.

You choose words and then students actually place the words in boxes based on where they think they fit in the story. For instance, they place those key words in the boxes that relate to characters from the story, outcome from the story, simply unknown words from the story.

So they work together in teams to actually place those words. Then once they've placed the words in these boxes based on where they think they fit, they write a gist statement about the story based on what they've thought of so far. Then you read the story and come back and compare to their gist statements.



### **Slide 33: During Reading Strategies**

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During-reading strategies are very critical ...

### **Slide 34: Say Something - for students who don't think about the text or what they understand as they read**

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... as Kylene Beers says. One particular during-reading strategy that is very effective is 'Say Something'. As students go through the text, they meet in groups of two ideally, in partners.

They read through a certain portion of text (as the teacher, you decide what portion of text they'll read). If it's a children's book, it might be every two to three pages. If it's a chapter book, it might be, you know, after a few pages of text. It could be after a paragraph of text.

After one partner reads, the other partner offers a response to what was said. The response has to be in one of these areas -- make a prediction, ask a question, clarify, make a comment, or make a connection.

As you go through this with students, you teach them first of all what 'make a prediction' looks like. You might even give them examples of when I 'make a prediction': first, I say I think the next part will be about . . . Then you teach them next about 'ask a question'. It engages students in the story so that they're self-monitoring as they read along to make sure that they understand what has just been previously read. There are more details about 'Say Something' in your handout packet.

### **Slide 35: After reading strategies**

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We're going to talk just briefly about after reading strategies.

### **Slide 36: Scales**

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There are two kinds of scales that students can use after reading. One, to examine characteristics – that's the semantic differential scale – so we might say Goldilocks was clever or sneaky? And students have to indicate on the scale how much they thought she was either clever or sneaky. And then they have to justify that response.

The Likert-type scale is to indicate level of agreement with a statement. So I thought the three bears were . . . or that it was inappropriate for them to leave their house unlocked. The students indicate level of agreement and have to justify that response – again, just a way to continue to keep them engaged in the story following reading of that story.

### **Slide 37: Somebody, Wanted, But, So**

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Another way to help them create a summary, which is sometimes pretty difficult for students who are struggling, is to use ‘Somebody, Wanted, But, So’.

As they go through and think about a portion of text – it can either be an entire story, a chapter, or a portion of a chapter that was just read – students have a framework that they can use to establish a summary sentence about what that portion of text was about.

They think about which somebody to consider, what that somebody wanted, what occurred that caused the problem, and what eventually happened. And there’s a diagram for this on page 18 of your handout packet.

So I know I've gone quickly through those and I apologize for the quickness, but I hope that you will have at least some places to get started in those important areas of reading.

**Poll 3: When determining what intervention should be implemented for a student or students, how is the evidence base for the intervention assessed?**

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I want you to consider this: when determining what intervention should be implemented, how is the evidence base for the intervention assessed? So as you think about how you assess whether the intervention is evidence-based or not, answer this polling question.

One, it’s not assessed. We don't assess the intervention. We have an evidence-based questioner on our team, someone that says ooh, what’s the evidence base. We use resources that contain or provide only evidence-based intervention. So go ahead and log in now about how you determine the evidence base for an intervention.

All right, it looks like most of you responded. Of those who responded, most of you responded that you use evidence-based resources or you have an evidence-based questioner on your team and you use resources. Excellent.

Please continue to think about how you assess the evidence base of interventions that are recommended for students at your team level. Part of this is just to continue sort of pushing you forward and thinking about how to move to next steps in RTI.

**Slide 38: Questions?**

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Let’s stop for a minute. I am going to take just a couple questions before I move on to mathematics. One of the questions was how do we verify how effective an intervention is before we purchase it? I would actually encourage you to go to a couple of websites to look for specific programs that have been reviewed.

One website is the What Works Clearinghouse. And I referenced that earlier and it’s also in my handouts. They have actually reviewed programs and they post those reviews fairly often, so the program that you’re looking for answers about might be on that website. Another website that people commonly go to is [bestevidence.org](http://bestevidence.org). It’s the Johns Hopkins Best Evidence Encyclopedia.



The links to those two websites are also in my handouts and both of them review common programs in reading, mathematics, behavior, and other areas.

Okay, let's see. Let me answer a couple more questions.

A couple of the questions alluded to the interventions that I have provided so far and how those differ for Tier 1, Tier 2, and Tier 3 students.

I want to be clear that I do see a lot of these interventions fitting well in Tier 1, good differentiated instruction. And, in fact, I believe that that's one of the first and best places that we should start, at Tier 1, if we really want to make a difference for these students.

The way that they would differ at Tier 2 and Tier 3, again, is in duration, specificity, and intensity. So at Tier 2, smaller groups, more specific modeling perhaps, lower level materials; at Tier 3 much smaller groups, perhaps pull-out out of the classroom, very specific modeling and guided practice.

So the differences among interventions – well, we hope that these are being implemented in all classrooms. The difference really is in that implementation of duration, specificity, intensity at those Tier 2 and Tier 3 levels.

### **Slide 39: Interventions in Mathematics**

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I'm going to talk just briefly about interventions in mathematics.

### **Slide 40: Resources (others in your handouts)**

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And, you know, of course, I knew I wasn't going to have very much time. I'm sorry. But I hope you'll refer to Dr. Gersten's webinar, as well as to the Center on Instruction Resources in Mathematics for more details about these interventions. (Available at:

[http://www.rti4success.org/index.php?option=com\\_content&task=blogcategory&id=18&Itemid=75](http://www.rti4success.org/index.php?option=com_content&task=blogcategory&id=18&Itemid=75) and

[http://www.centeroninstruction.org/resources.cfm?category=math&subcategory=&grade\\_start=&grade\\_end](http://www.centeroninstruction.org/resources.cfm?category=math&subcategory=&grade_start=&grade_end)).

### **Slide 41: Making decisions about intervention implementation**

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Again, when we're thinking about implementation, we want to continue to think about what data we have that can guide our instruction and intervention selection.

And so in the area of mathematics, we have tools at our disposal like task analysis, error analysis, and interviewing students about how they're solving problems to help guide our instruction and/or to help guide our decisions about intervention selection.



It's important to remember that we can use the CBM mathematics probes diagnostically, but they don't necessarily include all essential skills. So they're meant to serve as indicators. They're not necessarily meant to serve as diagnostic tools.

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**Slide 42: Review by Gersten, Baker, Chard (2006) - [centeroninstruction.org](http://centeroninstruction.org)**

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In a review by Gersten, Baker, and Chard in 2006, and this is posted on the Center on Instruction website, they highlighted practices that had moderate to large effect sizes for students at risk.

(Available at:

<http://www.centeroninstruction.org/files/Russell%20Gersten%20David%20Chard%20Effective%20Instruction1.pdf>). And I'm going to go through and talk about a couple of examples within each of these practices that they found were important.

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**Slide 43: Visual and graphic depictions**

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**Slide 44: Sequencing of Skills**

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In the area of visual and graphic depictions, this may be something that you've seen and used for a while, but it's still a great one, this notion of concrete to semiconcrete to abstract, CSA.

As we introduce skills to students, we first introduce in a concrete way using manipulatives. We then move to a semiconcrete stage where we're using pictures, for example, and finally to an abstract level where we're using number symbols only.

All along the way, we're using parallel modeling in that even when we give manipulatives and pictures, we're modeling those with numbers, with those on the board or on your smart board or whiteboard. You're modeling that with equations along the way.

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**Slide 45: Schema-based strategy instruction**

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Schema-based strategy instruction is another excellent way, particularly as we move on up into those upper elementary and secondary grades, to use visual and graphic depictions.

Asha Jitendra (you'll see her name here listed as a second author) has really been a leader in this area. And I encourage you to look at her research in this area. Students identify the schema or the type of problem and then use that information to solve the problem. (More information available at: <http://www.cehd.umn.edu/EdPsych/Faculty/Jitendra.html> and [http://www.edst.purdue.edu/faculty\\_profiles/xin/index.html](http://www.edst.purdue.edu/faculty_profiles/xin/index.html)).

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**Slide 46: Change problem**

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Let me give you an example of what that might look like. If it was a change problem – like Stacy had 43 coins, she lost 20 of them, now she has blank coins – students would learn how to identify the type of problem and then how to represent it.

As you see here, the beginning and ending set and the change are represented in a circular manner so that students can, as they come to more complicated problems, have a way to actually represent those problems.

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**Slide 47: Systematic and explicit instruction**

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So I'd encourage you to look at schema-based strategy instruction as an excellent research-based method for that visual and graphic depiction.

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**Slide 48: Basic Instructional Plan - Tier 2 or 3**

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In the area of systematic and explicit instruction, I'd actually highlight and direct you toward my examples of the basic instruction plan, a Tier 2 or Tier 3 lesson plan format for mathematics. It can also be used in reading, not the same exact lesson plan, but we have used it before in reading. It's an example of a way that we can guide students very concretely through a skill using different types of material. And it can be used with a variety of levels of students. I would encourage you to look at the sample that's provided in your handouts for that basic instructional plan.

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**Slide 49: Student think-alouds**

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**Slide 50: Sample Problem-Solving Strategies**

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Student think-alouds, sample problem-solving strategies like you see here, are excellent ways to help continue to give students guidance about how problems should be solved, to actually give them a listing or a checklist of how to navigate a problem, to move step by step through a problem.

And so both of these, Montague and Miller, Strawser, and Mercer strategies, would be great ways to first post these steps or give students a checklist at their desk, and then finally, to sort of gradually pull that away so that they can apply that on their own.

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**Slide 51: Structured peer-assisted learning activities**

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**Slide 52: Critical features of peer assisted learning activities - Tiers 1 or 2**

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Peer-assisted learning is an excellent way to continue to provide Tier 1 or Tier 2 intervention in reading or mathematics. The math research for PALS in particular, peer-assisted learning strategies, is highlighted on the PALS Web site. I'm highlighting it down below here. (Available at: <http://kc.vanderbilt.edu/pals/library/mathres.html>). It comes out of Vanderbilt University



and has been researched both with elementary students and with secondary students. Unfortunately I don't have time to talk a lot about it. But if you're looking for a peer tutoring type of structured mathematics intervention, I would encourage you to look at that PALS research.

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**Slide 53: Formative assessment data provided to teachers and/or students**

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**Slide 54: Error Analysis**

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And then finally, we want to continue to use that diagnostic data, that formative assessment data, to help us determine what types of errors students are making by looking at patterns of errors.

In mathematics, we think of error analysis almost like a miscue analysis in reading...

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**Slide 55: Assessment & Error Analysis**

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...that we're looking at error patterns, and then actually sort of categorizing those error problems to determine whether, and where, we need to intervene.

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**Slide 56: Questions and wrap up...**

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I'm going to stop there. I want to alert you to the goal-setting and RTI fidelity sheets in the back. Those might continue to help you move forward.

Let me answer just a couple more questions and then I know it's going to be time to go. I want to also remind you that if I haven't gotten to your question today on the call, I will be responding to these questions in a written form. And those questions and answers will be posted on the National Center website.

Let's see. Let me answer a couple more questions.

When the RTI team meets, should the diagnostic questions be discussed or is it assumed that it's already known?

I would actually encourage teams to have their teachers who are coming to the problem-solving team bring that diagnostic information – prepare that in advance and bring that to the team. It's not the case that teachers will always know exactly what to bring to the team, so it may require a little bit of staff development to talk about what kinds of diagnostic data should be coming. But I think this should be prepared in advance and then brought to the team for a discussion.

I'm going to have to end there today. We are out of time. I appreciate so much your attentiveness and I hope that this brief overview of interventions and RTI has given you some food for thought and some places to go, next steps.



Again, I encourage you to look at the resources in the back of your handouts for more information.

*Whitney Donaldson:* Thank you so much, Dr. Lembke, for sharing this presentation with us today.

If you would like to print a copy of the PowerPoint slides from today's presentation, you may do so by clicking on the small printer icon at the bottom right hand of your screen, right-hand side.

And the slides will also be available on the National Center on Response to Intervention's Web site. And you can find more information on our Web site at [www.rti4success.org](http://www.rti4success.org).

If you have additional questions about interventions and RTI, you may email them to us at [RTIWebinars@air.org](mailto:RTIWebinars@air.org).

I'd like to invite you to join us for our next Webinar that's on January 14, 2010, at 2:00 pm Eastern Time. Dr. Rob Horner, Director of the PBIS Center, will present on RTI and behavior and will discuss school-wide tiered behavior interventions.

We would appreciate your feedback about today's session. If you would take a few minutes to complete the Webinar evaluation that you see on the screen, we value your feedback and ultimately your suggestions will assist us in making decisions for our future Webinars.

Once again, thank you for your participation today.