Interventions in RTI

1. Question: Do you have good specific interventions for Writing and Math? I feel there are lots of resources for reading (i.e., Florida Reading Center, Intervention Central) but not enough for writing and math.

> **Answer:** *You are correct that there is not as much research on effective interventions for writing and mathematics. Here are a few resources for evidence based practices:*
> - *For writing, I would suggest looking at the Writing Next document (Graham and Perin), http://www.all4ed.org/files/WritingNext.pdf as one example.*
> - *For mathematics, the National Math Panel released a report detailing evidence-based practices. Please see: http://www2.ed.gov/about/bdscomm/list/mathpanel/report/final-report.pdf.*
> - *Also, the Institute on Educational Sciences has a practice guide on RTI in mathematics: http://ies.ed.gov/ncee/wwc/pdf/practiceguides/rti_math_pg_042109.pdf.*
> - *A recent publication by Corwin Press is an RTI and mathematics book by Riccomini and Witzel that has evidence-based intervention ideas in mathematical areas like number sense, problem solving, and fractions: http://www.corwin.com/booksProdDesc.nav?prodId=Book232920&.*
> - *Also, the National Council of Teachers of Mathematics website illuminations provides lessons and activities focusing on specific skill deficits: http://illuminations.nctm.org/*

2. Question: What constitutes as a research-based intervention? When finding a specific deficit (like writing your ideas down) where do you find a specific researched-based intervention? or do you provide 1:1 instruction and monitor the progress so its a data-driven intervention?

> **Answer:** *A research-based intervention is one that is supported by studies that have been conducted and published in peer-reviewed journals. A good quick place to check on the research evidence that might support a strategy is to check googlescholar.com. This resource provides only the peer-reviewed articles that support an intervention. Once you have data from progress monitoring that indicate that an intervention isn't working, you need to administer some type of diagnostic measure to identify exactly where the deficit lies. Examples of diagnostics include running records or mathematics interviews. Following determination of the specific deficit area, you should use resources you have collected that provide evidence-based interventions (like the fcrr.org activities or the resources listed above) to target those deficit areas. Then continue to collect progress monitoring data to determine whether your intervention is working for the student.*

3. Question: How much data should be available before making an educated decision to change the intervention and/or to move to a formal evaluation for special education? For what duration should reading interventions be implemented? How many different interventions should be attempted with fidelity before considering a learning disability?

> **Answer:** *First, the team would need to verify that the universal instruction that is in place is research-based and being implemented with fidelity. Next, the guidelines vary a bit based upon the state, researcher, or school, but generally, a minimum of 6 weeks of data (with data collected weekly) is needed before a decision can be made about change in intervention. However, this would also be under the assumption that treatment fidelity of the intervention is being monitored during those 6 weeks. And prior to making a change, the duration, specificity,*

evidence-base, and fidelity of implementation during the previous 6 weeks should be questioned. Following another 6 weeks (minimum) of evidence-based intervention implemented with fidelity (12 weeks minimum now), if data continues to indicate that the student is not responding to this otherwise effective instruction, a decision could be made about moving a student to a more intensive tier or referring that student for evaluation.

4. Question: Can you direct us to any independent research involving Fountas & Pinnal Guided Reading Program for struggling readers? Are the screening and benchmarks aligned to CBM?

> **Answer:** *I'm not sure that there is any research specifically on Fountas & Pinnell.*
> *(I would suggest checking the What Works Clearinghouse, topic reports on beginning reading: http:// ies.ed.gov/ncee/wwc/reports/Topic.aspx?tid=01, click on the dropdown list to search for interventions) . However, it is also important to examine whether the elements of the program are research-based. Here is one reference for a research article on guided reading: Reading Practice for Beginners: Effects of Guided Reading, Reading-While-Listening, and Independent , Pieter Reitsma, Reading Research Quarterly, Vol. 23, No. 2 (Spring, 1988), pp. 219-235 .*
> *Based upon a quick search of the literature that I conducted, most of the articles that I found were in The Reading Teacher, which is the primary practitioner journal for the International Reading Association.*
> *I am not familiar with their screening and benchmarking materials, so couldn't comment on whether they align with CBM principles, but you would want to make sure to check reliability and validity of these and any assessment tool.*

5. Question: Progress monitoring was not an option for fidelity monitoring practice poll. Would this not be a strong validity check tool?

> **Answer:** *Good question. Progress monitoring tells you how well the student is responding to instruction and instructional programs, but you need teacher fidelity checks to determine whether this instruction is being implemented as specified or designed. The progress monitoring data might be leading you to believe that the student is doing poorly, when it's really that the teacher is not implementing the intervention as well or as specifically as he/she should be.*

6. Question: How do we reconcile the need for evidence-based practices and the freedom to not necessarily use a purchased program?

> **Answer:** *In the webinar, I hope that I gave you a few ideas in each area. There are many strategies (repeated reading, reader's theater, vocabulary practice, comprehension strategy practice) that do not re-quire any purchased materials. However, some schools choose a program for intervention because they feel that they can more closely control the fidelity of implementation. This would be called a standard treatment protocol approach. Learn more about this at: http://www.rti4success.org/index.php? option=com_content&task=blogcategory&id=40&Itemid=105*

7. Question: What progress monitoring tool would you suggest to use to help monitor comprehension interven-tion?

> **Answer:** *Progress monitoring tools using CBM are meant to serve as overall indicators of proficiency in a subject area, rather than indicators of mastery on a particular skill. So you wouldn't choose CBM oral read-ing fluency as a measure to monitor fluency, but rather as a measure to monitor growth in reading overall. So if you want to monitor the effects of the comprehension intervention you're implementing, you could use either oral reading or the maze task.*

8. Question: Is picking a strategy found in a peer-reviewed journal such as The Reading Teacher an acceptable method to use to select an intervention to try? Is a peer-reviewed journal such as the Reading Teacher enough of a valid source of research to support your practice of using a strategy from that journal?

> *Answer: Choosing a peer reviewed journal is a key step, but you also need to make sure that the strategy has been researched as part of a controlled study. For example, in some practitioner-focused journals, a teacher will describe how a practice has worked in his/her classroom. This is interesting to a reader, and this practice might work in your classroom, but you would want to check the research studies that support that practice (or check a website that has expert reviewers that provide suggestions on effectiveness) before using it in your own classroom.*

9. Question: Do you have a recommendation for particular research based interventions for grades K–3.

> **Answer:** *You should check the What Works Clearinghouse (http://ies.ed.gov/ncee/wwc/) and the Florida Center for Reading Research (fcrr.org) as two first places to begin. I've also used and appreciated the CORE Reading Sourcebook (Honig, Diamond, and Gutlohn): http://www.corelearn.com/Products/Publications/ #Teaching-Reading-Sourcebook-2nd-Edition*

10. Question: Can you explain how you use oral reading fluency probes to measure comprehension?

> **Answer:** *All CBM measures (i.e., oral reading fluency, maze, nonsense word fluency) serve as indicators of proficiency in reading or early reading. They were researched and developed to be quick 'temperature checks' if you will, of how students are progressing in reading in general. They are not meant to be linked to specific mastery of content. So while oral reading is not a specific measure of comprehension, it does provide a good indication of whether or not a student is making progress with the instruction and/or intervention you have in place. Take the example of a teacher who is currently implementing a comprehension intervention with his/her student. Oral reading fluency could be used on a weekly basis to progress monitor the student, informing the teacher about whether instruction is going well or not so well. The teacher would also need to pair that progress monitoring with some type of diagnostic assessment (e.g., asking the student specific comprehension questions, having the student retell the story) to see if the instruction needs to be reviewed, to see what skills the student has mastered, and to determine what skills need to be taught next. In this way, progress monitoring and diagnostic assessment 'work' together to create a very accurate picture of student performance.*

11. Question: How do we have content teachers at the high school level teaching reading? We don't have reading classes but we do have students that are behind grade level in reading.

> **Answer:** *Secondary content area teachers should continue to work with other teachers on their team or in their school to implement strategies that will help the learning of all students, including those that are struggling readers. For example, content area teachers can use graphic organizers and guided notes in their classes to enhance the learning of those students who have difficulty with content. Content area teachers can continue to communicate with English or Communication Arts teachers to find out how specific students are doing and to parallel strategies in the content area classrooms that might be used in the reading classroom. Teachers that work with struggling readers in separate classes during the day can use content area text to reinforce comprehension strategies. All of these are examples of ways that we can continue to mesh the difficult, content-area reading that students will encounter with strategies that will help them navigate that content.*

12. Question: Do you consider singing as an effective intervention for fluency? Research shows singing as a VERY effective help in this area.

> **Answer:** *I know that some reading programs such as PALS (Peer Assisted Learning Strategies, http://kc.vanderbilt.edu/pals/) use singing as part of their Kindergarten activities, and PALS is a research-based intervention. However, I don't know the research on singing and its effects on fluency in particular.*

13. Question: Are CBM probes to be administered at their grade level or at their "independent" level?

> **Answer:** *Measures are administered at grade level for screening and at instructional level for progress monitoring.*

14. Question: Do you have suggestions for teaching vocabulary to high school students? How are words selected?

> **Answer:** *I don't have specific research in front of me that addresses the teaching of vocabulary for high school students, but I might recommend a text by Kylene Beers, When Kids Can't Read, What Teachers Can Do: A Guide for Teachers 6–12, Heinemann, 2003. This text has a specific chapter on vocabulary and also has excellent strategies for teaching comprehension.*

15. Question: What is your opinion on computer based reading interventions, such as lexia?

> **Answer:** *As with any intervention, I would want to make sure that the program itself has research to support it, or that the core elements of the program are supported by research. I would continue to check resources like the What Works Clearinghouse (http://ies.ed.gov/ncee/wwc/) to see if the program that is being considered is supported by research. And then check the progress monitoring data of the students in the interventions on a regular basis to make sure that the intervention is effective for them.*

16. Question: As far as providing the intervention, does it need to be the same interventionist? Who should be providing the interventions?

> **Answer:** *Interventions should be provided to the students that have the greatest need by the person that has the most specialized experience in that subject area. So if we can free up the music teacher during the intervention time, most often he/she should work with the general education students that are Tier 1, while the classroom teacher, who has more expertise in teaching academic areas, would teach Tier 2 or 3 students. We need to be very careful that all teachers who are working with students on instruction or intervention are implementing with fidelity. If you have someone that is not a school staff member teaching an intervention, such as a retired teacher, please be sure that someone trains that teacher to deliver the intervention, and also checks on fidelity on a frequent basis. Generally, the classroom teacher provides universal instruction, as well as intervention (enrichment) to Tier 1 students. Tier 2 can be delivered by the classroom teacher or a specialist, and Tier 3 is delivered by a specialist. You should remain as consistent as possible with the interventionist. Students who are struggling need this structure.*

17. Question: Can you explain why students are taught to segment words phoneme by phoneme (at the phonemic awareness level), but then when we take it to print we encourage them to use onset and rime to decode words (at the phonics level)?

> **Answer:** *If I sent this message in my webinar, I apologize because I was not being completely accurate. When students move on to phonics, the research would recommend teaching first at the sound level, and then at the syllable or "chunk" level (using onset and rime).*

18. Question: How many years "old" can a research base be? I noticed one of your sources was 1992. I'm just wondering what is acceptable in terms of age of research base.

> **Answer:** *Good question. There are some articles or studies that we consider 'seminal' in that they formed the original body of knowledge that was formed on a particular topic. For instance, the National Reading Panel and National Mathematics Panel reports are and will continue to be excellent resources into the future or until they are updated, even though, as in the case of the National Reading report, the work is already 10 years old. I think the more important issue to attend to is who the research was with, how many participants, over how many settings, and whether the work was published in peer-reviewed outlets.*

19. Question: Describe the role of a person on your team as the "evidence-base questioner" resource. Would their role be to check those online clearing houses that you mention to validate teaching methods? Would they do this during the meeting?

> **Answer:** *I see the role of the evidence-based questioner first and foremost as the person that asks the critical question as an intervention is recommended: Is there research to support this intervention? Then, team could make a decision about who checks on the resources during the meeting. In some team meetings, the principal is checking these resources. In other cases, it's a teacher-leader on the team. This checking needs to be done prior to the teacher leaving the meeting with his/her plan, or needs to be completed later on, and then the plan finalized after checking is completed.*

National Center on Response to Intervention

If you have comments and questions about this workgroup and its activities, please visit our website **www.rti4success.org** or contact The National Center on Response to Intervention at **rticenter@air.org**.

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