CHAPTER 10

Critical Factors in Designing an Effective Reading Intervention for Struggling Readers

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JEROME, A FOURTH-GRADE struggling reader, can read books from the Junie B. Jones and Polk Street School series with reasonable accuracy, but he reads slowly and without much fluency. He has struggled with reading and writing since kindergarten—at least in comparison to most of his peers. He is a bright and easy-going child, an accomplished athlete for his age, and well liked by his classmates and adored by his teachers. He's not a nonreader, but he has little opportunity to demonstrate fluent reading in his classroom, where he experiences whole-class reading lessons drawn from the grade-level commercial reading series that was marketed as a "scientific" solution. Unfortunately for Jerome, and other struggling readers, grade-level reading series offer teachers little in the way of support for struggling readers (McGill-Franzen, Solic, Zmach, & Zeig, in press).

Jerome also participates in a 30-minute, small-group remedial reading intervention two times a week. Jerome attends with five of his classmates, who also are struggling with reading, although for different reasons. The intervention removes them from a segment of the whole-class reading lesson every Monday and Wednesday and focuses primarily on working with a paraprofessional to

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complete various skills using worksheets from a supplemental reading program used in the intervention classes.

Jerome and his peers read aloud the worksheets with the paraprofessional, who provides corrections to words they cannot pronounce. Students then attempt to figure out what response they are to provide. When they encounter difficulties, the paraprofessional will often read aloud the supplemental worksheets. She then checks to make sure each student has correctly completed the worksheet item. If the worksheet tasks are completed before the intervention period is over, Jerome and his peers are allowed to play one of several computer-based games, often focused on decoding words but not words from either classroom or intervention reading materials. When they return to the classroom, they hand in their worksheets and take up whatever work their classmates are doing.

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The No Child Left Behind Act of 2001 (2002) requires that reading instruction provided to students be based in "scientific research." Although there has been much concern about the federal definition of what constitutes "scientific research" in reading (Allington, 2004; Coles, 2001; Cunningham, 2001; Garan, 2001), it does not seem unreasonable to expect that research would inform the design of interventions for struggling readers (Allington, 2002, 2006). One problem may be that too often the research focus in designing reading instruction is on the relatively narrow band of topics that the National Reading Panel (NRP) reviewed in 2000. Another problem is that some of those findings have been distorted in the advice provided to those designing reading interventions.

For instance, the widely distributed document *Put Reading First* (National Institute for Literacy [NIFL], 2001) suggests that "systematic and explicit phonics instruction is particularly beneficial for children who are having difficulty learning to read...and in helping children overcome reading difficulties" (p. 15). However, the report of the NRP (National Institute of Child Health and Human Development, 2000) actually concluded that, "Phonics instruction failed to exert a significant impact on the reading performance of low-achieving readers in 2nd through 6th grade" (p. 2–133).

Put Reading First contains a number of other misrepresentations, including suggestions that decodable text has been shown to be a necessary component of "scientific" reading instruction and that "add-

on" phonics programs are ineffective. Timothy Shanahan (2003), a member of the NRP, has commented on this last suggestion that "NRP did not find that and, given the nature of the research findings we reported on phonics, I would be surprised if the statement were true" (p. 647).

But debating the merits of decodable texts, add-on phonics programs, or any sort of phonics program in the design of effective reading interventions for struggling readers may be beside the point. Situations might exist where one might elect to use decodable texts for some poor readers, for example, or an add-on phonics program such as Cunningham's (2004) interactive Word Maker software. In discussing the design of effective interventions, we may lose sight of the forest while debating the advantages of particular types of trees. That is, we need to worry about broad research-based design principles first, then worry about the details of the instruction because those details will vary, one hopes, for every struggling reader. The example of Jerome at the beginning of this chapter helps illustrate how the best intended intervention designs are often markedly problematic given what we know about effective intervention design. Thus, this chapter presents four research-based design principles. School administrators should monitor interventions for struggling readers to ensure that each of these principles is reflected in the daily reading instruction provided to struggling readers. (See Table 10.1 for an example of a simple, effective monitoring strategy.)

• Table 10.1 •
Monitoring Strategy

Randomly select five struggling readers, perhaps one from each grade level. Visit the classrooms these students are assigned to and spend 10–20 minutes simply observing the struggling reader and the lesson being offered. Ask the student about the reading he or she does in school each day. Ask the student if he or she reads more than other students in the class on a regular basis. You may want to ask the student to read a bit in a soft voice from the curriculum materials in use. Ask yourself, Can the student read this accurately, fluently, and with comprehension? In regard to the lesson, Do you see good examples of explicit and useful strategy teaching? Later in the day, meet with the student's intervention teacher and ask him or her to tell you about the classroom program you observed. Ask for a description of what the student did during the intervention class. Then, determine whether or not the classroom and intervention lessons created a coherent and balanced reading program.

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Four Research-Based Design Principles for Helping Struggling Readers

Reading Volume

If we intend to accelerate the reading development of struggling readers, intend to help them "catch up" with their classmates who are developing typically as readers and writers, then we will necessarily have to ensure that the intervention design provides expanded opportunities to engage in successful reading practice. One of the misunderstandings of the findings of the NRP is linked to this issue. Some educators suggest the NRP report recommended that, "rather than allocating instructional time for independent reading in the classroom, encourage your students to read more outside of school" (NIFL, 2001, p. 29). But that is not quite what the NRP said. As panelist Shanahan (2003) writes, "In fact, the panel did not conclude that children did not need reading practice, only that how this might be best accomplished is an open question" (p. 653). The NRP found that none of the popular methods or packages (e.g., Sustained Silent Reading [SSR], Drop Everything and Read [DEAR], Book It, or Accelerated Reader) that are intended to increase reading volume had much evidence suggesting that once implemented, reading volume actually increased.

Nonetheless, reading volume is important. Reading is like virtually every human proficiency in that practice matters. Practice alone is not sufficient to develop proficiency, however; instruction is also required. But practice—reading volume—is an important factor in the design of reading interventions. Guthrie (2004) has pointed out that the best readers spend about 500% more time engaged in reading than do the least proficient readers. He suggests that the relation between reading volume and reading proficiency is not coincidental. Drawing on research from a wide array of human activity (sports, chess, music, and so forth), he reports that the highly skilled individuals routinely engage in far more practice than those who are less skilled. His conclusion: "Because engaged readers spend 500% more time reading than disengaged students, educators should attempt to increase engaged reading time by 200%–500%" (p. 1).

Let's consider Jerome, the student mentioned at the beginning of the chapter. At best, his instruction provides him the opportunity to read a single story or story excerpt each week, given his participation in the whole-class reading series lesson. Under the best of circumstances Jerome will read no more than the better readers in his classroom.

Because the grade-level text is difficult for him, he may actually read less. But even if he reads the 20 minutes per day that typical fourth graders do during their reading lessons, Guthrie argues for the need to increase his volume to around 100 minutes per day. That is not occurring now for Jerome.

Depending on the scheduling of his intervention, Jerome even misses some classroom reading opportunities while completing the worksheets. Nothing in the design of the classroom instruction or the intervention ensures that Jerome will have greater opportunities to practice reading than his more skilled classmates. The other design problem is that Jerome's reading is almost always from grade-level texts, even though Jerome is at least a year below grade level in his reading development.

Jerome needs an intervention design that will dramatically increase his reading volume. This could be done by having his classroom provide Jerome and his struggling peers with a second daily reading lesson, an intervention documented as effective (Taylor, Short, Shearer, & Frye, 1995). But adding a second 30-minute guided reading group would still be far shy of the 100 minutes of reading practice. If we added 40 minutes of reading practice in a daily after-school program, we could reach the 100 minutes. Or we could ensure he has 40 minutes of independent reading time every day. The point is that reading volume has been widely neglected in the design of interventions for struggling readers. This may be one reason why most struggling readers continue to struggle year after year.

Appropriate Texts

If we intend to increase the reading volume of struggling readers, we must be concerned about the books provided for them to read. In the first recent experimental test comparing the outcomes for struggling readers tutored using grade-level materials (texts used in the classroom) or reading-level materials (texts matched to reading level of students), O'Connor and her colleagues (2002) found a clear advantage for using texts matched to struggling readers' reading levels. This was especially true for those students with the lowest levels of proficiency, where significant greater gains were found on decoding, word identification, and fluency.

But there has been evidence of the importance of matching readers with books they can read accurately, fluently, and with good comprehension since Betts's (1949) classic study. In fact, designing interventions for struggling readers has always had the use of appropriate

difficulty texts as a standard. Nonetheless, it is incredibly common to observe struggling readers assigned grade-level texts not just for their classroom reading lessons, but also to have those same too difficult texts used in their intervention lessons in the reading or resource room or the after-school program.

Struggling readers need books they can read accurately, fluently, and with strong comprehension all day long. We cannot expect to accelerate the reading development of struggling readers by providing appropriately difficult books just during the intervention session. Thirty minutes of instruction and practice in an appropriate text during a daily intervention session will not overcome 300 minutes of time in texts that are too difficult during the remainder of the day. It is not just during the classroom reading lesson and the intervention lesson that struggling readers need books they read successfully. Struggling readers also need texts of appropriate difficulty during science and social studies. And they need appropriate books to read at home in the evening, on weekends, and over the summer months (Allington & McGill-Franzen, 2003).

Based on the research available, I suggest that struggling readers should spend about 80% of their school reading time in texts they read with 99% accuracy, fluently in phrases with intonation, and with 90% comprehension or better. This is just the sort of reading diet we routinely provide our best readers, those reading above grade level. Every year our best readers expand the gap between their reading proficiency and the reading proficiency of their struggling reader classmates. Yet, in too many schools, the struggling readers are struggling in the same reading series, the same social studies texts, and the same class novels that their better reading peers read accurately, fluently, and with good comprehension.

High-success reading produces higher levels of self-efficacy and motivation to read. The only way we might meet Guthrie's target of dramatically expanding the reading volume of struggling readers is to ensure that their desks are filled with books they can read easily and successfully, all day long.

Explicit and Personalized Instruction

Struggling readers need personalized and explicit instruction. Practice alone is not sufficient. Returning to Jerome, his reading lessons provide some whole-class instruction, but too often the lessons found in commercial reading series provide little or no explicit instruction (McGill-Franzen et al., in press). The most common lessons are often actually assessments. Lessons where comprehension questions, for in-

stance, are viewed as the comprehension instructional component. Or decoding lessons where fill-in-the-missing-vowel worksheets are viewed as phonics lessons. But students who can answer the questions do not benefit from answering, at least in terms of extending their comprehension strategies. And students who cannot answer do not learn what strategy, or strategies, they needed to employ to derive the answer. Students who can fill in the correct vowel learn nothing from the worksheet and neither do the students who fill in the wrong vowels.

Such common activities, questions after reading and worksheets of various sorts, may be useful if the teacher uses them to identify students who need explicit instruction, that is, if after noting which students were unsuccessful, the teacher pulls those students together for an appropriate strategy lesson. But if the postreading questions and worksheets produce no reteaching, then the time spent on those activities is largely wasted because neither the better nor the struggling readers benefit in any way from completing the activity.

In the other chapters of this book, you will find any number of suggestions for useful and explicit strategy teaching. In addition, there are a number of other resources that will prove useful: *Explaining Reading: A Research for Teaching Concepts, Skills, and Strategies* (Duffy, 2003); *Teaching Strategic Processes in Reading* (Almasi, 2003); *Improving Comprehension With Think-Aloud Strategies* (Wilhelm, 2001); and *Strategies That Work: Teaching Comprehension to Enhance Understanding* (Harvey & Goudvis, 2000). Each of these texts, and many others, provides superb guidance for learning how to teach reading explicitly and strategically. Every school should consider using any of these titles for teachers as professional readers (TAPR) study groups. TAPR groups involve selecting professional texts that will be read and discussed with teaching peers (Allington & Cunningham, 2002). This form of professional development is essential if teachers are to build expertise across their career spans. It is essential if students like Jerome are to ever end their struggles.

Another design feature that must be considered is that of providing more intensive personalized teaching for students who struggle. The research available demonstrates that one-to-one expert tutoring is simply the most powerful intervention model. Camilli, Vargas, and Yurecko (2003) reanalyzed the NRP data and found that tutoring had an effect size that was twice as large as that reported for systematic phonics instruction. Likewise, a recent meta-analysis (D'Agostino & Murphy, 2004) of 36 studies of the effectiveness of Reading Recovery, probably the most widely implemented tutoring intervention, found that intervention produced significant growth in reading as measured on both instructionally

sensitive and standardized reading achievement tests. These reports echo earlier large-scale analyses that found tutoring to be the most effective intervention design (Shanahan, 1998; Wasik & Slavin, 1993), especially expert tutoring.

But while the research often cited as supporting the goal of all children reading on level by third grade invariably used tutoring interventions, the costs of providing tutoring to struggling readers is enormous; neither state nor federal education funding streams provide the monies needed to implement tutoring on a broad scale (Allington, 2004). Nonetheless, tutoring must be considered for those students who have fallen the furthest behind.

There is evidence, though, that suggests that very small group interventions (two to three students) can be quite effective (Allington, 2002; Pinnell, Lyons, Deford, Bryk, & Seltzer, 1994; Vaughn, Gersten, & Chard, 2000). Very small group interventions seem to work well when members of the group share instructional needs. Grouping children by instructional levels and instructional needs would make it more likely that all members of the group will benefit from a single lesson. There is little evidence, unfortunately, that intervention groups like Jerome's, six students with varying instructional needs, can provide the support needed to accelerate reading development. Worse in Jerome's case is the reliance on paraprofessional staff to deliver the intervention. What Jerome needs is the most expert instruction available, not the least expert.

Although there have been occasional accounts of training programs for paraprofessionals that produced interventions that resulted in modest reading growth, the larger research base suggests little or no benefit for paraprofessional-based interventions (Boyd-Zaharias & Pate-Bain, 1998; Rowan & Guthrie, 1989; Rubin & Long, 1994). In other words, the research indicates struggling readers need expert teachers providing the intervention, not paraprofessionals or willing but untrained volunteers.

Coherence and Balance

Finally, intervention design must work to ensure both coherence and balance. In a study that interviewed both classroom and intervention teachers (remedial reading, Title I, and resource room teachers), almost no classroom teachers could reliably discuss what students from their classrooms did during intervention lessons (Johnston, Allington, & Afflerbach, 1985). Likewise, very few intervention teachers could even name the reading curriculum materials that their intervention students used during classroom reading lessons. In over half the cases, the two

teachers (classroom and intervention) were using reading curriculum materials that were strategically incompatible—materials more likely to confuse the struggling reader than help him (McGill-Franzen & Allington, 1990). The lack of shared knowledge about the reading lessons offered produced a fragmented and incoherent instructional experience, rather than a consistent and balanced curriculum plan. Struggling readers seem to benefit more from coherent and supportive interventions than from interventions like Jerome's that have them struggling in two different reading programs.

One caution is needed, however. Some classroom reading plans are unbalanced. Some plans overemphasize certain critical elements of reading while largely ignoring others. For instance, a classroom plan might overemphasize oral reading, or maybe oral reading rate, while neglecting silent reading and reading comprehension. A coherent and balanced plan would not simply replicate the imbalance of the classroom in the intervention lesson (Johnston & Allington, 1991). Rather, the focus during intervention might shift to silent reading and comprehension. However, if the classroom reading materials are inappropriate, say, too difficult, then replacing those materials while focusing on silent reading and comprehension would provide the balance needed.

But in designing effective reading instruction for struggling readers, educators simply cannot allow students to continue using inappropriate materials in the classroom. Remember the previously stated goal: Students should have high-quality reading instruction all day long. Thus, the classroom teacher might use the same materials used by the intervention teacher and perhaps continue the focus on oral reading. The intervention teacher then reuses those materials in lessons but provides both targeted strategy instruction and a silent reading and comprehension focus.

The basic design features here are simple: coherence and balance. For too long remedial and special education interventions have been unhinged from the core curriculum. The result is that the most fragile learners have been provided an often dizzying array of materials and lessons—an incoherent array that is not experienced by students developing their reading with little difficulty.

Conclusion

Educators can design research-based interventions that will accelerate the reading development of struggling readers. But the four design features presented in this chapter are critically important for struggling readers.

The intervention plan must

- substantially expand the volume of daily reading;
- ensure access to appropriate texts all day long;
- provide needed expert, explicit, personalized instruction; and
- craft a coherent and balanced array of reading lessons and activities.

Effective intervention designs cannot be achieved simply by purchasing an alternative curriculum package that will be delivered to the struggling readers with little regard to individual needs or the whole-day instructional experience (Allington & Nowak, 2004). Effective interventions cannot be designed in isolation from the whole-day instructional experiences of struggling readers. Enhancing classroom reading lessons first and then focusing on providing more intensive, more personalized, and more expert reading instruction to students who still struggle is the only solution.

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