

READING CURRICULUMS AND INTERVENTIONS

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This paper describes some ideas for designing and implementing research-based reading interventions for struggling readers (mild, moderate, and severe). Let us first define our terms. A reading intervention is a focused instructional program or plan that supplements an existing reading curriculum. Like any type of intervention, reading interventions are designed to be used for short durations. In other words, an effective reading intervention should enhance students' current reading levels such that it is no longer needed.

Again, a reading intervention should supplement effective research-based reading instruction already taking place in a general education setting. This means that it should not be substantially different (Wharton-McDonald, 2011). When an intervention or remedial program is different from classroom instruction, it creates a splintered curriculum. Here struggling readers are presented with different types of instruction and learn different sorts of skills in different places throughout the day. This makes it harder to develop their reading skills; not easier.

Imagine if you were a struggling tennis player and you were sent to one instructor who did a set of drills and asked you to swing the racquet a certain way in the morning, and a different instructor who did different set of drills and asked you to swing the racquet a different way in the afternoon. This would make it difficult to develop your tennis skills. Yet, this is what occurs with struggling readers when interventions and remediation look substantially different from good classroom instruction. Struggling readers need consistency in order to reinforcement developing skills.



READING CURRICULUM

The first step then in identifying an effective reading intervention is to identify an effective reading curriculum. A curriculum is systematic plan for instruction related to specific subject areas that describes the specific knowledge and skills to be taught at each grade level and in what context. Below are ten essential elements that should be included in a reading curriculum (Johnson, 2016):

- **Concepts of print.** If you are working with emergent level readers (birth through Pre/K), part of instruction should be related to concepts in print. This involves concepts such as (a) books contains stories and information, (b) words represents things and ideas; (c) letters represent sounds, (d) letters are put together to form words, and (e) books are read from left to right. Instruction at this level is mostly incidental and implicit. Most learning occurs through experience and exposure. While you most like will not attend specifically to this element in a grade 1-12 setting, it is important that you know and understand it so that you can convey its importance when working with parents and families.

- **Phonemic awareness.** This is the ability to hear and manipulate the sounds within and between words. Strategies here include breaking words into parts based on sounds, identifying specific sounds within words, and manipulating sounds to create words. Phonemic awareness activities are generally discontinued once students are reading comfortably at the upper first grade level. However, some struggling readers benefit from phonemic-phonics hybrid activities. These are described in one of the mini-lectures

- **Affective elements.** This refers to emotion and motivation. Attending to the emotional element is important in working with all students, but it is especially important when working with struggling readers (Hamre & Pianta, 2005; Van Ryzin, 2011). Positive emotional experiences enhance learning while negative emotional experiences disrupt learning (Hinton, Miyamota, & Dell-Chiese, 2008; Johannessen & McCann, 2009; Machazo & Motz, 2005; Sousa, 2011). Hence, learning of any kind can be enhanced by increasing the positive experiences and decreasing the negative experiences.

There are two specific implications here. First, a teacher's #1 job is to help students fall in love with books. Reading good books creates positive emotions and makes it more likely the student will do it again. Also, reading volume has been linked to increases in comprehension, word identification, vocabulary, fluency, and conceptual knowledge (Cunningham & Allington, 2010; Krashen, 2004). Once students learn to love books, much of reading "instruction" takes care of itself. However, for this to occur, there must be an abundance of good books available for students to read in school and classroom libraries.

A teacher's #2 job is to avoid frustrating students. Frustration, anger, and humiliation are all negative emotions that disrupt learning. Instruction should be proximal and meaningful. Drill and practice of isolated reading subskills should be kept to a minimum while practice reading real books should be maximized. As well, the good books that are available for reading practice must be at students' independent level and below.

- **Phonics.** This is the ability to associate sounds with letters or letter patterns. Almost all reading teachers, researchers, and scholars believe that phonics is an important element in early reading instruction. It is not the 'what' of phonics instruction that is often in question; it is in the 'how' and the 'how much' of phonics instruction. And phonics is one of three cueing systems the brain uses to recognize words during the process of reading. Therefore, instruction for all readers must include strategies that address phonics as well as the other two cueing systems (semantic and syntactic).

- **Word Identification strategies and skills.** These are what students' use to identify words that are not immediately recognized. In education, a strategy is a plan or approach that is consciously applied. A skill is an operation that is done automatically. In reading, we teach the strategy to develop the skill. That is, we teach word identification strategies so that students do them automatically when they encounter an unknown word. If we teach strategies correctly, they eventually become skills. For simplicity, we will use the word 'skill' to denote both.

There are six general types of word identification skills: (a) analogy (word families), (b) morphemic awareness [prefix, suffix, affix, root], (c) context clues [semantics], (d) sight words [this is technically, not a strategy], (e) syntax, and (f) phonics. All six of these should be included in a reading curriculum. If phonics is the only word identification skill taught (as is often the case with struggling readers), students get one sixth of a reading education.

Formal instruction related to phonics and word identification are generally discontinued as word identification strategies when students are reading comfortably at the 3rd grade level. However, some word identification strategies (analogy and morphemic analysis) should be continued as part of vocabulary development.

- **Fluency.** This is the ability to process text quickly and efficiently. You do not teach fluency; however, there are a variety of strategies and activities that can be used to develop and enhance students' reading fluency (see Module 6). These include a variety of repeated reading activities and wide reading (Kuhn & Stahl, 2013).

- **Vocabulary.** This refers to word knowledge. In a reading curriculum, there are a variety of strategies that can be used (Johnson, 2016) (see Module 6), the most effective of which is wide reading. Hence, the importance of wide reading in any reading curriculum or intervention.

- **Comprehension.** Comprehension here refers to the specific strategies and skills used to create meaning with narrative and expository text. This is one of the most under-instructed elements in most reading programs. And just like word identification above, we teach the strategy to develop the skill. That is, we teach cognitive operations related to effective comprehension so that students use these automatically as they are reading.

- **Writing.** The reading-writing connection has been firmly established (Duke, Pearson, Strachan, & Billman, 2011; Goodman, Fries, & Strauss, 2016; Goodman & Goodman, 2009; Lipson & Wixon, 2009; Parodi, 2013; Weaver, 2009). Writing helps strengthen letter sound relationships and is one of the most effective strategies to use in develop the syntactic cueing system (Parodi, 2013). Thus, writing activities should be included as part of every reading curriculum (see Module 6).

- **Literature or good books.** This last element refers to providing high quality reading material that students want (and are able) to read as well as ample time to read. Like any skill, one needs to practice in order to get better. Would you expect to learn to play the piano if you never practiced? Could you learn to play the piano if you did not have good music to play? Could you learn to play the piano if all the music given to you was too hard?



The general rule of thumb is that 70% to 80% of reading class should involve the independent reading of books that students have selected. Only 20% to 30% of reading class should be spent in instruction. In most classrooms, these percentages are just the opposite. In many classrooms students are asked to find a good book to read only when they finish their “work”. Instead, finding a good book to read should be the main work occurring in reading class.

Instead of reading class, it might be more constructive to think of it as reading practice. Here, students are provided a variety of good books to read at their independent level or below, and lots of time to practice and enjoy reading. Activities would include book talks, aesthetic responses to literature, reading logs, book evaluations and critiques, and social interaction around

good books (see Module 7). Small bits of targeted skills instruction would be provided based on students' individual needs.

A READING INTERVENTION

What is often included in reading interventions for struggling readers is simply more phonics. Based on the idea that reading is simply sounding out words, they are often given a strict diet of sounding-out-word practice. While this type of intervention may show increases in measures of reading sub-skills initially (as we would expect); but by themselves, they have not been shown to demonstrate significant positive effects on comprehension, higher level literacy skills, or later literacy achievement (Pearson & Hiebert, 2013).

This section describes the six essential elements that should be included in a reading intervention.

- **Reading curriculum essential elements.** Except for concepts of print, a reading intervention for struggling readers should include all the essential elements described above for reading curriculums in some form. (Phonemic awareness activities should be used sparingly with students who have severe reading difficulties.)

- **Expert teacher.** High-quality reading instruction of any kind cannot occur in the absence of high-quality reading teachers (Allington, 2011, Bishop, et al, 2010; Brownell, et al., 2009; IRA, 2010; Wharton-McDonald, 2011; Wixson, Lipson, & Valencia, 2014). Therefore, successful intervention programs for reading are dependent on having teachers who are experts in reading instruction (IRA, 2010; Wixson, Lipson, & Valencia, 2014). Expert reading teachers have knowledge and a broad understanding of (a) human learning, (b) literacy teaching and learning, (c) literacy research, (d) literacy assessment and diagnosis, and (e) literacy pedagogy.

- **Briskly-paced instruction.** An effective reading intervention should reduce the length of time required for focused attention during instruction. Figure 1 shows the recommended duration for direct instruction (Jensen, 2005). Outside of this, learning is reduced significantly. This does not mean that the duration of the entire reading intervention should be this short; instead, it should consist of small bits of direct instruction that are briskly-paced (two to no more than eight minutes for a single element) with a pause or reflective activity between. The brain learns best when instruction is provided in small bits followed by a pause or a chance to do something with the new instructional input.

Figure 1. Appropriate amount of direction instruction.

Grade level	Appropriate amount of direct instruction
K-2	5-8 minutes
3-5	8-12 minutes
6-8	12-15 minutes
9-12	12-15 minutes
adults	15-18 minutes

- **Provide opportunities for review and practice.** You cannot expect to teach a literacy skill once and achieve student mastery. You must revisit, review, and reinforce skills many times, in different ways, at successively higher levels over time for real learning to occur. This is especially true with struggling readers who often have difficulties recognizing letter-sound patterns. For example, when teaching a letter pattern, introduce it initially using direct instruction, but then revisit, review, and reinforce it in subsequent days using a variety of strategies including cloze, fluency activities, riddles, writing, other creative activities. Also, use posters, sponge activities, games, and quick 5 to 30 second mini-lessons throughout the year to review skills learned.

- **Understanding and compassion.** Try to imagine what it must feel like to be a struggling reader, to fail miserably in a very public way each day. When working with struggling readers, the first thing you need to do is let them know that we all have trouble with certain things and struggling with reading is not a big deal. This will enable you to begin to work with students. When you sense students getting frustrated, you need to slow down or take a break. As stated above, negative emotions like anxiety and frustration inhibit learning.

- **High/low books.** High/low stands for high interest and low reading level. All students need to practice reading using reading material that is at their independent level or below. Finding the appropriate reading material is a bit more difficult for struggling readers. Emergent and beginning readers need picture-driven texts. These are books in which the picture can largely carry the story or convey the information. Here, the print is large with one, but no more than two sentences for every picture. Since some students who are reading at beginning levels are in grades 3 and above (severely struggling readers or severe reading disability), the emotional content must be appropriate. In other words, older students should not be asked to read books in which the emotional content is appropriate for a six or seven-year old child (I call these “ducky” books). There are some good high/very-low books being published – but not nearly enough. However, you can use language experience activities (see Module 7). And you can work with the student to create your own materials (see Module 7).

For students in grades 3 and up who are struggling readers, use high/low books. These are books written at the 1st or 2nd grade level with emotional content appropriate for grades 3 and above. For narrative texts, these are chapter books with short chapters that have pictures or illustrations with every chapter. Expository text also has short chapters, larger print, and pictures to convey or illustrate important information found in the text.

Again, it is very hard to develop expertise with any kind of skill without practice. Students cannot practice reading if there is not appropriate material with which to practice. .

IN-CLASS SUPPLEMENTAL INSTRUCTION

Struggling readers do not need a different kind of instruction; instead, they need more intense versions of instruction they are already getting (Allington, 2012; Wharton-McDonald, 2011). Intensity here refers to more time, more time on task, and smaller instructional groups (3 to 7 students). The intervention below involves the type of intense, supplemental instruction that can be used as an intervention in a general education classroom. If you are doing RTI, this would be an example of Tier I instruction. This pragmatic, research-based intervention involves six elements:

1. Daily sustained silent reading of books at students' independent level and below.

The goal here is reading volume. Reading volume has been shown to enhance comprehension, fluency, vocabulary, and word identification (Cunningham & Allington, 2010; Cunningham & Stanovich 2001; Krashen, 2004).

2. Daily writing. Writing is one of the best strategies for developing the syntactic cueing system as well as letter-sound relationships (Parodi, 2013). Writing activities here need not be long, but they should be authentic (see Module 7). That is, students should be writing and sharing their ideas.

3. Guided reading lessons. Guided reading lessons in small groups are used to teach specific reading skills to small groups in authentic reading contexts (Lipson & Wixson, 2009). These skills are usually related to word identification (see Figure 2) and comprehension.

Figure 2. Five ways to identify words during reading.

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| <ol style="list-style-type: none"> 1. Context clues (semantics) 2. Word order and grammar (syntax) 3. Word parts or analyzing words 4. Morphemic analysis (prefixes, suffixes, and root words) 5. Phonics |
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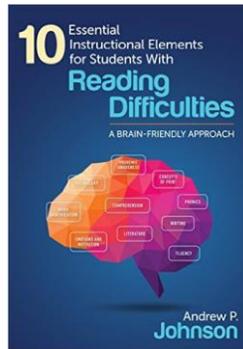
4. Word work. Word work is instruction related to letter sounds or letter patterns (Cunningham & Cunningham, 2002; Erickson & Kopenhaver, 1995). This would include analytic, synthetic, and large unit phonics instruction.

5. Cloze and maze activities. Cloze and maze activities are used to develop the semantic cueing system (Paulson & Freeman, 2003) (see below).

6. Fluency work. Fluency work usually involves some form of repeated reading (Kuhn & Stahl, 2013) (see below).

FINAL WORD

Any type of reading intervention or remediation, whether it is in the general education classroom or outside, must be coordinated with the instruction that is currently taking place in the general education classroom (Allington, 2011; Averill, Baker, & Rinaldi, 2014; IRA, 2010; Scanlon, 2011; Wixson, Lipson, & Valencia, 2014). That is, interventions and remediation for reading should reflect the types of research-based instruction and activities used with the general education reading curriculum. In this way, students' learning experiences do not become splintered or fragmented. Instead, the intervention or remediation builds upon and reinforces good classroom reading instruction. Effective reading interventions are not meant to replace good classroom instruction; they are meant to enhance it.



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