Evaluating the interventions for struggling adolescent readers

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The authors assess current reading interventions for struggling readers and offer five guidelines for choosing an effective program.

Literacy educators across the grade levels are often asked for their opinions on the quality of particular reading programs. However, for researchers and teacher educators who study adolescent literacy, these questions are now coming more frequently and more urgently. The recent flood of information on later reading difficulties has received much attention in the United States and has created a sense of crisis in adolescent literacy that begs for immediate solutions. For instance, the United States Department of Education reports that more than 8 million students in grades 4–12 are struggling readers (Grigg, Daane, Jin, & Campbell, 2003). National Assessment of Educational Progress data from 2002 indicate that 33% of the 8th-grade students and 36% of the 12th-grade students who were tested performed at or above a “proficient” level. These data mean that nearly 70% of the 8th graders tested could not describe the purpose of a practical passage and support their views with examples and details. We are also reminded that poor readers are at significant risk for dropping out of high school (Snow & Biancarosa, 2003). Over 3,000 students drop out of high school every school day (Alliance for Excellent Education, 2003).

The federal government has responded to this issue by focusing funds on a “Striving Readers” initiative. According to the White House website at www.whitehouse.gov/infocus/education, the President’s Striving Readers initiative provides a focus on improving the reading skills of high school students who read below grade level. This Presidential initiative, first funded in 2005, builds on the No Child Left Behind elementary school reading initiatives. The President’s [fiscal year] 2006 budget will provide $200 million, an increase of $175 million, eight times the 2005 level to improve the reading skills of these high school students. (press release dated January 12, 2005)

Along with this federal focus, states are responding with funds for reading intervention programs for middle and high school students. For example, in California, funds are available for schools to adopt intervention programs. The purpose of the current middle school reading intervention, for example, is “to provide a comprehensive, intensive, accelerated reading/language arts program designed for students in grades four through eight whose reading achievement is significantly below grade level,” as described on the Department of Education’s website (www.cde.ca.gov/ci/rl/im/documents/ri.rtf).

Although we agree that far too many students do not read well and that reading and writing interventions are necessary to move students to proficient and advanced levels, we worry that middle and high schools eager to see changes in
achievement may overlook the most fundamental conditions for meeting the needs of struggling readers. Few independent research studies have been conducted on popular commercial reading programs, but the use of such programs in secondary schools is burgeoning, and No Child Left Behind legislation threatens to seep into the upper grades. The merits and pitfalls of particular programs have been debated elsewhere (e.g., Biggers, 2001; Mallette, Henk, & Melnick, 2004; Pavonetti, Brimmer, & Cipielewski, 2002/2003).

When is intervention necessary?

Our purpose in this article is to suggest some research-based principles for developing and evaluating instructional frameworks that can be used by literacy educators and secondary-level administrators faced with difficult but crucial decisions about how to help students in critical need.

Before describing these principles we would like to consider two assumptions about schools seeking an intervention involving “special” reading instruction for students. First, we assume that schools looking for intervention programs to supplement their efforts already provide students with significant opportunities for wide reading. By this, we mean that students have access to a substantial number of readable, interesting books that focus on the content they are studying. We also mean that students are provided the opportunity to “just read” books of their own choosing (Fisher, 2004; Worthy, Broaddus, & Ivey, 2001). The power of addressing such a fundamental condition for literacy development can be seen in the changes experienced by students and teachers at Mountain View High School (Brozo & Hargis, 2003). Assessments indicated that nearly 35% of all students at the school were reading one or more grade levels below their placement, so the school implemented four initiatives aimed at increasing the quantity and quality of wide reading for all students: sustained silent reading, reading young adult novels in content classrooms, offering alternative texts to struggling readers and advanced readers in content classrooms, and buddy reading with elementary-grade students. These initiatives alone yielded notable increases in students’ achievement and motivation to read.

Second, we assume that the entire school is focused on literacy achievement and that teachers use content literacy approaches to ensure that their students are engaged in meaningful curriculum. By this, we mean that the history, science, math, English, art, music, and other teachers ensure that students are developing strategic reading skills as they read for information (Fisher & Frey, 2004; Ivey, 2004). For instance, Tubman High School in San Diego (Fisher, 2001) experienced a 12% overall gain in statewide achievement tests over a two-year period as three trends took shape in classrooms across content areas. First, staff development for all teachers focused on specific instructional strategies (e.g., K-W-L [Ogle, 1986], writing to learn, concept mapping, reciprocal teaching) that students experienced consistently from content area to content area. Second, a daily independent reading time was created, and large quantities of books were purchased specifically for this initiative. Third, block scheduling was implemented to allow teachers substantial amounts of time to provide reading and writing opportunities and instruction across all content area classes.

Without these two nonnegotiable features of the learning environment—access to high-quality, readable texts and instruction in strategies to read and write across the school day—it is doubtful that a specific, limited intervention will make much of a difference. If a school has already made these fundamental changes and there are still students who struggle to read, it is likely that an intervention program or initiative is necessary (Ivey & Fisher, 2006). Although there are many programs that can be considered, we suggest that the people who have the power to purchase, implement, or develop a program consider the following five guidelines.
1. The teacher should play a critical role in assessment and instruction

A key component in case studies of struggling readers who became better readers is lots of time spent with an expert teacher (e.g., McCormick, 1994; Morris, Ervin, & Conrad, 1996). In fact, it is difficult to find success stories that do not feature teacher involvement in a major way. When we refer to teacher involvement, we are suggesting something that extends far beyond the general notion of individualization. There are many programs that differentiate materials and assignments for students, but that does not mean instruction is personalized.

We know of many commercial programs that advertise individualized learning, but what does that mean? It might mean that students get texts at different levels, that they work alone at a computer at their own pace, or that they are grouped according to ability levels. But what is different about the teaching, and how is that connected to individual students? It is highly unlikely that a computer, for example, could accurately evaluate a student’s strengths and needs or tend to the complexity of adolescents’ motivations for reading and writing (Alvermann & Rush, 2004). Only expert teachers can make split-second decisions that facilitate students’ understandings from text and knowledge about literacy processes (Johnston, 1987).

Consider 10th-grader Michael (student names are pseudonyms) during a one-to-one tutoring session with his teacher. Michael reads at roughly a first-grade level, and even at age 16, he still enjoys Dr. Seuss books. As he read I Am Not Going to Get Up Today! (Seuss, 1987), he came across the phrase “You are wasting your time” (p. 15). He became stuck on wasting and stopped reading, with no apparent strategies for moving on. His teacher advised that sometimes she skips the word, reads the next several words, and then makes a guess about the word in question using the meaning of the sentence and the first couple of letters of the unknown word. Before she could finish the explanation, Michael exclaimed, “Wasting!” They used this strategy successfully a few more times with this same passage. Without the teacher present and participating, it would be impossible to know where Michael is getting stumped and what needs to be explained to him (e.g., Duffy, 2003). When we implement programs that do not prominently feature the teacher’s expertise, we are likely leaving students’ learning up to chance.

2. The intervention should reflect a comprehensive approach to reading and writing

We see an either/or theme in reactions to low reading achievement among older students. A common assumption is that persistent reading problems are either the result of deficiencies in word-level skills or deficiencies in comprehension skills. Certainly, we know of students with obvious problems in word recognition and others who can read every word but seem not to remember or understand what they read. If the reality were that simple, though, we would have solved the problem of persistent reading problems long ago, because for decades there has existed a plethora of programs aimed at “fixing” specific reading difficulties. Still, such programs seem to be rising in their popularity, despite a lack of solid evidence that they make much of a difference. Programs that focus on phonemic awareness and phonics instruction are particularly problematic because there is little reason to believe that emphasizing these fundamental skills would have any significant benefits for secondary students (Ivey & Baker, 2004).

One belief underlying the skill-by-skill approach to learning to read is that once students learn all the necessary skills for reading and writing, they will magically put it all together. You can find research showing that teaching a particular skill increases your aptitude with that skill, but does that make you a better or more motivated reader? Older students need to “see the big pic-
ture” when it comes to reading and writing, and good interventions should begin with reading, writing, listening to, and thinking about meaningful texts. Instruction in the processes of reading and writing (e.g., word recognition, comprehension strategies, vocabulary, fluency) ought to help facilitate student engagement and understanding with real texts rather than take center stage in the program.

3. Reading and writing in the intervention should be engaging

It is easy to find a reading program for which even struggling or resistant students will sit still. After all, most programs are designed to offer instruction and materials that are much easier than grade-level, whole-class types of assignments, and for students who consistently struggle with most school reading and writing experiences, this is a welcome relief. In other words, some reading programs get students who might be noncompliant in regular classroom activities to suddenly appear compliant. To see this kind of change in students may falsely lead an observer to believe that the intervention must be working and that students are learning.

In order to see gains in achievement and motivation outside of the intervention, instruction and materials need to be engaging, as Guthrie (1996) cautioned us:

When children read merely to complete an assignment, with no sense of involvement or curiosity, they are being compliant. They conform to the demands of the situation irrespective of their personal goals. Compliant students are not likely to become lifelong learners. (p. 433)

When we inundate older struggling readers with superficial and lifeless reading and writing tasks that bear no resemblance to the reading and writing they encounter in the real world, we ensure their status as outsiders to the real literate community. We have a hard time finding studies of adolescent literacy these days that do not highlight the critical role of engagement and particularly the importance of using interesting reading materials (e.g., Ivey & Broaddus, 2001; Worthy, Moorman, & Turner, 1999). Effective instruction for all adolescents focuses on their personal interests and incorporates diverse reading materials such as trade books and the digital texts they read on their own (Alvermann, 2002), and this is no less true for inexperienced older readers and writers.

4. Interventions should be driven by useful and relevant assessments

How can we determine what students need from an intervention? Often, standardized tests are used to place students in special reading programs. Then, with commercial intervention programs, one of two scenarios may be encountered. The first is that the program is designed so that everyone starts at the same level, with an initial focus on fundamental skills followed by a progression toward more sophisticated skills. The second scenario is that the program comes with an assessment that places each student in a particular strand or level within it. Unfortunately, neither of these scenarios helps us to determine what students need to progress in real reading and writing.

Research studies and individual student descriptions of recent years (e.g., Alvermann, 2001; Ivey, 1999; Knobel, 2001; Rubenstein-Avila, 2003/2004) leave us with an instructional challenge that is difficult to ignore: Older struggling readers are extremely complex, and to meet their needs we must take a closer and more sophisticated look at their literate strengths, needs, and preferences. This means that in addition to good initial assessments (e.g., an informal reading inventory, spelling inventory, writing samples, interviews, observations), ongoing assessments will be necessary to determine students’ purposes for reading and writing, what they already do, and where they could use some help.
To fully understand the needs of students within an intervention, we have to see them engaging in literate tasks in a variety of contexts, including diverse print and electronic reading materials, and for a variety of purposes, including reasons for reading and writing outside of school. It is doubtful that paying close and deliberate attention to students will result in the simplistic conclusion that students are simply poor decoders or poor comprehenders. In fact, purchasing, adopting, or designing an intervention without this kind of information would likely be a waste of teacher energy, student time, and fiscal resources.

5. The intervention should include significant opportunities for authentic reading and writing

We do not know of any cases of older struggling readers who became better readers by not reading. On the other hand, we have strong evidence to suggest that time spent reading separates good readers from poor readers (Allington, 2001). If we want low-achieving readers to become more like successful readers, any intervention ought to include many opportunities for students to actually read. In fact, it should be the focal point of the instructional time. Unfortunately, many middle and high school students who are still struggling may have been assigned to special reading programs in the elementary grades that focused on skill-and-drill activities to the exclusion of authentic reading and writing (Johnston & Allington, 1991).

Working on skills and strategies should facilitate real reading and writing. It should take place in the context of activities where students actually need to know how to use the skills and strategies and have purposes for using them. Furthermore, the amount of time students spend reading and writing (and here we mean engaged in reading and writing) ought to substantially outweigh the amount of time students spend considering skills and strategies related to literacy. For instance, during a 45-minute session, we imagine a student spending at least 30 minutes actually reading.

Examining the guidelines in context

To help consider how these guidelines for intervention might apply in a real classroom, we offer two glimpses of instruction with students whose experiences and profiles probably resemble those of many struggling readers in secondary programs. Our first scenario demonstrates an intervention that likely has little productive impact on the student receiving it, while the second scenario includes characteristics of interventions that make a difference.

The case of Anthony

Anthony is an African American male who attends a large urban school. He is 16 years old and has failed ninth grade. He has no identified disabilities. This high school is the third he has attended; he has attended a total of 12 schools between first and ninth grade. He lives with his mother and five siblings in a one-bedroom apartment. He saw his father get shot on the street during a drug-related transaction. Anthony consistently performs at the fourth-grade level on reading assessments. He writes sentence fragments and does not spell well. In fact, he often misspells common sight words such as when, there, and once.

The school Anthony attends has purchased a computerized reading intervention program and Anthony is scheduled into the computer room for intervention one period per day. He also has an English class in addition to his content area classes. The school provides 20 minutes per day of self-selected reading, and Anthony can often be found reading the sports page of the newspaper or one of the many sports magazines in the room. Using the five criteria outlined above as talking points, Anthony, the reading specialist, and an administrator discussed the reading intervention program.
The reading specialist noted that the web-based computer program did not require any support or time from an adult, but instead that “students just sit down at the computer and begin working.” The administrator asked how the specialist knew Anthony was being challenged and how lessons were planned based on his skills. The reading specialist replied that there was a series of lessons through which all students had to progress.

Observing Anthony confirmed the reports from the school staff. He was engaged with the computer program and said, “Reading is easy.” The computer program introduced him to three sight words—\textit{I}, \textit{you}, and \textit{was}. He clicked on each word as the computer said that word, then he moved on to sentences. There were blank lines in the sentences and Anthony was asked to identify the missing word. The first sentence was “The cub gets a rug.” The second sentence was “The cat gets a nap.” The third sentence was “Ron has a dip in the ______.” His choices were \textit{van}, \textit{fox}, and \textit{tub}. We asked Anthony to select the wrong answer. He chose \textit{van}. The computer said, “Nope, that’s not it,” and read the sentence again. We did this 11 more times. The computer offered no assistance or guidance. The same sentence, with the same choices, was offered to Anthony over and over again. He would have to use process of elimination, and not reading, if he were to answer correctly and move on. The program did not require Anthony to use the sight words that were presented in the sentences he was reading.

Back in the office, we continued our conversation and our evaluation of this program. While we agreed that the text selections were not very engaging, the graphics, music, and voice on this particular program were very engaging for adolescents. Our conversation focused on the fact that students progress through the program in the same sequence, regardless of their current level of performance. Anthony’s assessments indicated that he read at approximately the fourth-grade level but wrote very poorly. The intervention activities we observed were nowhere near his instructional level.

The reading specialist confirmed that the intervention was not driven by assessment data and that the program could not provide the instructional support Anthony needed when he did not answer correctly. She also noted that he was not required to read any authentic texts as part of this program.

Given this assessment of the intervention program, we had to ask ourselves what to do. While Anthony enjoyed his time on the computer and felt successful, we did not have any evidence that he was reading better or more as a result. The reading specialist noted that she would have to start by adding independent reading time to the class as well as providing some individual instruction in writing for Anthony. Clearly, much more thought would need to go into effective intervention for Anthony and his classmates.

**The case of Raquel**

Raquel is a seventh grader who reads far below grade level. She has been in the United States since she was 6 years old, after crossing the border illegally. She has yet to be redesignated as fluent English proficient and has been identified as “intermediate” in her language proficiency for several years. She lives with her brother and his wife, as her parents did not make it across the border. She has attended two middle schools and four elementary schools thus far in her schooling experience. Her current middle school educates over 1,200 students in grades 6–8. The school operates on a 4X4 block schedule with each class lasting 90 minutes. This term, Raquel has English/genre, science, English language development, and math. She attends an after-school program funded by the U.S. Department of Education. The first 90 minutes of the after-school program focus on tutoring and homework assistance and the remaining two hours are designated for social and recreational activities. Raquel regularly selects music and art for her activities following tutoring.
Raquel receives 20–30 minutes per day of individualized instruction as part of her after-school program. In addition, she reads for 20–30 minutes of the period and completes center activities and tasks with a small group of students for the remaining time. During each school day, Raquel participates in 15 minutes of Silent Sustained Reading (SSR). Raquel likes to read series books and is currently on the fourth Series of Unfortunate Events book. She talks with her peers about these books and was overheard telling Zenaida that she practices reading the books at school so that she can read them at night at home.

In addition to the SSR time, part of Raquel’s intervention time is devoted to independent reading. In both SSR and independent reading, students read books on their own. The difference is in the book selection. During SSR time, Raquel selects any reading material she wants. During independent reading, the teacher narrows the choices to texts that are at Raquel’s independent reading level and that are based on the topics that Raquel is reading during her intervention. The books that Raquel reads during the after-school reading intervention program are often shorter and can be read in a single sitting. Looking through the book bin at titles that have been set aside for Raquel, it is easy to see that she enjoys music and art. The books include Lives of the Artists (Krull, 1995), Lives of the Musicians (Krull, 1993), Frida (Winter, 2002), My Name is Georgia (Winter, 1998), and When Marian Sang (Ryan, 2002). As Raquel stated when asked about the number of books chosen for her, “I didn’t know they had so many girl artists...I didn’t read books in my other school, only these papers the teacher gave us.”

According to her intervention teacher, the center activities add to Raquel’s understanding of language and focus on “the structure and function of the English language.” This is part of the focused English-language development curriculum for the school (Dutro & Moran, 2003). There are a number of centers in the room, including word sorts, listening stations with books on CDs, and grammar games. As we entered the room, we noticed that Raquel was at a table with three other students. They were each reading picture books with Role, Audience, Format, Topic (RAFT) writing prompts written on the inside. RAFT writing prompts help writers take perspective and write to different audiences (Santa & Havens, 1995). Raquel was working on a RAFT that is written inside the wordless picture book You Can’t Take a Balloon Into the Metropolitan Museum (Weitzman & Glasser, 1998) and read:

R - balloon
A - tourists
F - postcard
T - why you should visit the Metropolitan

Raquel worked busily, trying to fit her ideas into the space of a postcard. She rewrote her sentences to be as concise as possible until she was called by the teacher for her individualized instruction.

During the individualized reading intervention, Raquel practiced her part in a Readers Theatre script. Repeated readings, an integral part of the Readers Theatre experience, are an effective and purposeful means for building reading fluency (Worthy & Broaddus, 2001/2002). During this particular week, Raquel and a group of her classmates in the after-school program were preparing to present a portion of Zin! Zin! Zin! A Violin (Moss, 1995) to the other students and teachers. In this rhyming picture book, 10 instruments are introduced one by one in a musical performance. The performance will begin with one voice—the trombone—and a new voice will be added as the next instrument is described.

Before Raquel practiced her part, her teacher reads the entire book to her, modeling fluency and appropriate expression. Afterward, they talk about unfamiliar vocabulary (e.g., valves, bleating, mournful). In a second journey through the book, Raquel and her teacher take turns reading. Then they read the book in unison.
During each successive reading, Raquel’s confidence and fluency improve.

As Raquel began to practice her assigned part for the Readers Theatre, her teacher noted some ways she could read the passage to make it more engaging and comprehensible to the audience. For example, Raquel had to read, “Now, a mellow friend, the cello, neck extended, bows a hello” (p. 7). In her initial reading, Raquel read cello and hello with similar intonation. Her teacher pointed out to her that it would be more effective to read hello as if she were actually using it in a conversational greeting, with an emphasis on the final o. Raquel agreed and incorporated this into her performance.

Following our observation of the class and the systems of support provided to Raquel, we met with the school’s reading specialist. While not a “perfect” intervention, the support provided to Raquel required significant teacher involvement—from selecting texts, to modeling, to providing feedback, to gradually releasing responsibility in reading to the student. Raquel received many opportunities for real reading and writing, and the texts used for instruction clearly interested Raquel and were often connected by subject. Initial and ongoing assessments helped Raquel’s teacher find materials that made sense to Raquel. Also, to a large degree, what we typically think of as “components” of the reading process were addressed within the context of more substantial, purposeful, and connected reading and writing experiences (e.g., fluency practice was embedded within a Readers Theatre activity).

Although it is likely that Raquel will need even more explanations and modeling from the teacher regarding vocabulary, fluency, and comprehension within the context of reading and writing, this time after school is well spent. The differences between Anthony’s experiences and Raquel’s experiences are substantial, and it is possible to predict that Raquel will make greater strides in literacy in terms of achievement and motivation.

Keeping an eye on quality control

Having extra time set aside to focus on literacy is truly beneficial for older struggling readers and their teachers. Interventions that are antitheoretical or ineffective, however, may do more harm than good. When adolescents still learning to read and write show no real progress with program after program, it is tempting for us to sigh, “We’ve tried everything,” and move on to students who seem more “teachable.” Furthermore, students who experience no identifiable changes in their reading and writing despite the school’s efforts begin to feel hopeless about becoming more literate (Kos, 1991).

In middle and high schools, we have somewhat of a “Catch-22.” We know that when it comes to improving literacy, teachers—not methods or materials—make the most difference (Duffy & Hoffman, 1999). But how often do secondary teachers really get an opportunity to learn about supporting literacy development? Building teacher expertise is our most formidable long-term challenge, and that should be an ongoing process for schools.

As we think about our current students, however, good interventions can make a difference. If your school is presently looking to implement programs or frameworks for instruction, we hope you will consider the guiding principles we shared in this article as well as the rubric found in Figure 1. If you are currently using a program or if you must select from an approved list of programs, use the principles for assessment and decide what kind of instruction you will need in addition to what you already have.

In our experiences as teachers of older struggling readers and as researchers, we have not yet come across students who absolutely could not grow as readers and writers. We are also certain that we have not “tried everything,” as we continue to grow as teachers and as we encounter new adolescent learners who cause us to be more reflective and responsive.
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<td>4.1 Level of teacher involvement</td>
<td>Significant teacher involvement in the design and delivery of the intervention</td>
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<td>4.2 Intervention reflects a comprehensive approach to reading and writing</td>
<td>Intervention is comprehensive and integrated such that students experience reading and writing as a cohesive whole</td>
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<td>4.3 Intervention reading and writing is engaging</td>
<td>Authentic children’s and adolescent literature (fiction and nonfiction) are at the core of the intervention</td>
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**REFERENCES**


