Fusion Reading™

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What is Fusion Reading™?

One of our newest lines of research focuses on the reading problems of older adolescent students, particularly those in urban middle schools and high schools. Through this research, we have developed a course called Fusion Reading™, designed to teach older students such skills as how to figure out unknown words, how to think about what they're reading, and how to understand and talk about what they're reading. As they learn these skills through explicit instruction and practice, they read books and other materials chosen because the topics have proven popular and interesting for other adolescents in similar circumstances. Our early studies have yielded positive results, and we continue to test and refine Fusion Reading with larger groups of adolescents.

Why did we do this study?

As we began developing the Fusion Reading program, we realized we needed to know more about the reading skills of struggling adolescent readers as a foundation for making effective assessment, instruction, policy, and practice decisions. Previous studies have addressed the reading problems of young children, and some have examined the reading problems of younger adolescents, but we found little information related to adolescents in high school and especially in urban high schools. A more complete profile of the skills of these students is critical for two reasons: as a means of preventing poor reading performance and as a basis for designing interventions to improve the performance of struggling readers.

With this in mind, we conducted a study of 345 adolescent readers to gain a research-based reading skill profile of this population. Students who participated in the study were late eighth-graders and early ninth-graders from two suburban junior high schools, two urban middle schools, and three urban high schools in two Midwestern cities. We selected students based on their Kansas Reading Assessment (KRA) scores, a measure of adequate yearly progress (AYP). Our goal was to recruit at least 60 students in each of the five KRA categories: unsatisfactory, basic, proficient, advanced, and exemplary. Although 82 percent of the students in the study came from urban schools, we recruited the remaining 18 percent from suburban schools to increase the number of exemplary readers and to balance the five categories. Our study,

one of the largest done with that age group in terms of the reading skills they possess when they enter high school, looked beyond the general reading skills found on most state reading measures of AYP in an effort to describe the reading skill characteristics of both proficient and struggling adolescent readers.

What did we study?

We based our descriptive study of reading skills on the Simple View of Reading, a theory proposing that reading comprehension is a product of word recognition and language comprehension. This view divides the complexities of reading into two parts: The word recognition component is responsible for translating print into language, and the comprehension component makes sense of this linguistic information.

We paid teachers to administer a battery of tests encompassing a variety of language and literacy tasks to collect data about 11 component reading skills, which we grouped into the four domains described in the National Reading Panel report (National Institute of Child Health and Human Development, 2000):

Word Level (recognition that spellings of words correspond to the sounds of words). Assessments in this domain measured word decoding and word identification skills.

Fluency (reading with effi-ciency, which may involve slowing down to understand difficult material). Assessments in this domain measured rate, pace, and accuracy.

Vocabulary. Assessments in this domain measured both receptive vocabulary (words students have heard) and expressive vocabulary (words students use).

Comprehension. Assessments in this domain measured reading comprehension and listening comprehension.

See the box below for a complete list of the reading measures and instruments used in this study.

In addition to measuring students' reading skills, we also examined learner characteristics

READING MEASURES AND INSTRUMENTS

Assessment Area	Measure
Word Level	Woodcock Language Proficiency Battery (WLPB-R)
• Decoding	WLPB-Revised—Word Attack subtest
• Word Identification	WLPB-Revised—Word Identification subtest
Fluency	Test of Word Reading Efficiency (TOWRE)
• Pace & Accuracy	Sight Word Efficiency subtest
• Pace & Accuracy	Phonemic Decoding Efficiency subtest
• Rate	Gray Oral Reading Tests (GORT-IV)—Rate subtest
• Accuracy	GORT-IV—Accuracy subtest
Vocabulary	
• Receptive	Peabody Picture Vocabulary Test—III
• Expressive	WLPB-R—Reading Vocabulary subtest
Comprehension	
• Reading Comprehension	WLPB-R—Passage Comprehension subtest
	GORT-IV—Passage Comprehension subtest
• Listening Comprehension	WLPB-R—Listening Comprehension subtest
• Reading Achievement	The Kansas State Assessment—Reading subtest

**CROSS-TABULATION OF HIGH AND LOW SCORES
FOR EACH COMPONENT BY READER STATUS**

Reader Status		Vocabulary	Fluency	Word Level	Total
Struggling (students who scored at or below the cut point on reading comprehension measures)		Low	Low	Low	**123**
		Low	Low	High	**26**
		Low	High	Low	**2**
		Low	High	High	**14**
		High	Low	Low	**10**
		High	Low	High	**18**
		High	High	Low	**0**
		High	High	High	**9**
Proficient (students who scored above the cut point on reading comprehension measures)		Low	Low	Low	**4**
		Low	Low	High	**3**
		Low	High	Low	**0**
		Low	High	High	**8**
		High	Low	Low	**14**
		High	Low	High	**28**
		High	High	Low	**1**
		High	High	High	**85**

related to motivation, hope, and reading achievement. We used the Kansas State Assessment-Reading subtest for this last measurement.

What did we learn?

For purposes of our analysis, we defined struggling readers as those who scored at or below the 40th percentile of the composite score of the two comprehension measures used in the study. This is a fairly high cut point and represents students whose comprehension scores are just below average. Our thinking is that if a student is not performing at an average level, he or she is not reading at the appropriate level. Using this criterion, we designated 202 students in our study sample as struggling readers and 143 as proficient.

When we examined the scores of the 11 assessments, we found that the poor readers' scores were substantially lower than those of good readers. Struggling readers' scores across all domains—word level, fluency, vocabulary, and comprehension—were significantly below the expected norms. Students with disabilities (34 in our sample group) had lower scores on all measures than all other groups and lower scores than the struggling reader group on all measures except vocabulary, where they scored at the same level as the struggling reader group.

Of the 345 students in our study, 85 students scored above the 40th percentile on all components (including comprehension). The remaining 260 students who scored below that cut point on at least one of the components consisted of nine students in the struggling reader group who scored low only on comprehension and 193 struggling readers and 58 proficient readers who scored low on at least one component other than comprehension. The box on page 3 shows the distribution of scores of struggling and proficient readers across components measured in our study.

Of the 202 struggling readers with low scores on at least one component (other than comprehension), 123 (61 percent) were low on every component. Another 26 were low on every component except word level. Aside from comprehension, the component for which the largest number of struggling readers scored below the cut point was fluency (177 students, 88 percent).

Among the proficient readers, only four scored below the cut point on every component except comprehension. As with the struggling readers, the component with the largest number of low scores was fluency (49 students). The most common

combination for the remaining proficient readers were those who had high vocabulary scores, low fluency scores, and varying word level scores: 42 proficient readers fell into these categories; only 28 struggling readers did.

Why is this important?

Our findings in this study that a large number of struggling adolescent readers (61 percent) experience word-level and comprehension difficulties have profound implications, particularly for urban high schools that have disproportionately large numbers of struggling readers. In such settings, it would not be unusual to find 65 percent of the student body experiencing word-level difficulties. The resources and teaching skill required to help these students will be vastly different from a school in which a relatively small 10 percent of the student population struggles with reading.

Our findings of low performance of 260 of the 345 students in our study—including 67 of the proficient readers—on at least one of the other reading components measured (other than comprehension) reflect the breadth of the reading challenges presented by struggling adolescents in urban settings. We believe these findings call for balanced reading instruction for

the majority of adolescent struggling readers if urban schools want to see improved reading proficiency among students. Teachers must be prepared to teach high school students reading skills and strategies in each of the reading component areas we studied. In all likelihood, students also will need instruction on other factors, such as background knowledge and text structure. Further complicating the instructional picture is the fact that not all students will need instruction in all reading components. Secondary schools must conceptualize ways to provide an array of instructional alternatives.

What's next?

We used this descriptive study to help us design Fusion Reading. The profile of struggling adolescent readers that emerged led us to include phonics, decoding, and fluency instruction along with vocabulary and comprehension strategies. Because so many of the students we encountered simply did not read, motivation to read also became a key piece of the Fusion Reading program (see sidebar on page 5).

Reading is the very heart of Fusion Reading. Instruction concentrates on building the skills necessary to recognize unfamiliar words and understand language. Early on, teachers model how to figure out hard words, predict what will happen next in the story, learn new vocabulary, and make connections between what students already know and what they're learning from the

More information

Hock, M.F., Brasseur, I.F., Deshler, D.D., Mark, C.A., & Stribling, J.W. (in press). What is the reading component skill profile of adolescent struggling readers in urban schools? *Learning Disability Quarterly*.

book. Through guidance and practice, students acquire the ability to do these things on their own. All of these Fusion Reading tactics have one goal: Transforming students who struggle with reading into students who read well.

Putting together a comprehensive reading course for adolescent struggling readers is much different from our earlier work designing individual strategies. We're learning many things: what it takes to motivate disengaged students; what skills and strategies these students really need to learn; how much we can effectively teach in one year; how to structure a course to serve large numbers of students. Our early results have been positive, yielding statistically significant gains for students who complete the Fusion Reading course, and we look forward to even greater discoveries as our work proceeds.

References

National Institute of Child Health and Human Development (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (NIH Publication No. 00-4769). Washington, DC: Government Printing Office.

MOTIVATION & FUSION

Fusion Reading™ aims to increase the amount of time students spend reading by offering books and other materials that adolescents have told us they find interesting and relevant to their lives. As students read these compelling stories, they learn skills that will help them conquer tough reading assignments in their science or social studies classrooms. The Fusion Reading teacher also guides students in envisioning future possible selves and, through class activities, illustrates how the reading skills they are learning can lead to a successful future in high school and beyond.

Motivating disengaged readers to read became a critical challenge for us as we designed this program. We spent a great deal of time looking for reading material they would enjoy. We joke that we had to find the kind of books that were so entertaining and so relevant the students would want to steal them.

We found success with the Bluford Series from Townsend Press. The books in this series feature high school students from urban centers. The main characters are African-American or Hispanic. Written at a fourth- to seventh-grade level, these books are extremely engaging. Students love these stories because they live these stories.

Even in non-urban schools, we find students enjoy these stories. We have met with some initial resistance—pictures of gang members and guns on the covers don't recommend these books to some teachers and administrators—but the books have the right message and they capture students' interest.

There are limitations to the series. They are formulaic and students will get tired of them after awhile. But that's OK. Once we've hooked the kids and gotten them into a reading habit, we can move on to more challenging material.

Technology Update

KU-CRL researcher **Jim Knight** has begun using Twitter as a communication tool for instructional coaches.

SIM Professional Developer **Sue Woodruff** regularly posts thoughts to her blog.

Stratepedia—a Web site designed to engage SIM professional developers, researchers, teachers, and students in collaborative, interactive learning—features a series of articles on social networking.

What does it all mean? If you're not familiar with Web 2.0 applications—like blogs, Twitter, and Delicious—now may be the time to take a look.

Stratepedia is a terrific place to start learning more. Aaron Sumner and his team have assembled some basic information about Web 2.0 and social networking in posts on Hello, the Stratepedia blog:

blog.stratepedia.org

As you're browsing the information on Stratepedia, be sure to see Amber Hoffman-Nutt's RSS (Really Simple Syndication) tutorial and other RSS articles in Stratepedia to learn how RSS readers can reduce the amount of time you spend visiting your favorite Web sites and blogs.

Have You Gone a-Twitter? A Few Tips for Getting Started

Aaron Sumner
KU-CRL

If this is the first you've heard of Twitter, fear not—EDUCAUSE has released a brief overview of Twitter and its application to learning that's as good as any introduction I could write:

connect.educause.edu/Library/ ELI/7ThingsYouShouldKnowAbout/ 44762

Better yet, visit Twitter, sign up for an account, and give it a try for yourself. Many people suggest that's the only way to get what it can do.

I'm not a Twitter pro by any means–I only post a couple of times a day at the most, and, last I checked, I could still count my followers on my fingers and toes. But I've stumbled upon a few little things along the way to make using the service a bit less cumbersome.

1. **Get a client.** A Twitter client is a standalone program you download to your computer and configure to keep an eye on your Twitter account. This means you don't have to go to the Twitter webpage each time you want to post or read others' posts. I use a Mac client called Twitterific (the free, ad-supported one) on both my computer and my iPhone. More clients are available on Twitter's downloads page, and even more can be found on the Twitter Fan Wiki.

2. **Make replies trackable.** Next time you're replying to someone's tweet (or just trying to get their attention), begin that tweet with the person's username preceded by an @. For example, if you wanted to reply to something I said on Twitter, begin with @rural-ocity. Then I can easily track things that are responses to something I posted by clicking my Replies tab. Replies are not personal, private messages! They will show up alongside your tweets, so don't say anything you wouldn't say in a crowd.

3. **Don't feel the need to follow everyone who follows you.** Having a lot of Twitter followers is a badge of honor for some. Unfortunately, Twitter is also becoming yet another platform for spammers to do their dirty work. My general rule of thumb? If someone's tweets look interesting, I'll follow them back. If I know someone in some non-Twitter capacity, I'll follow them. How you handle it is your call.

Read Aaron's full Twitter blog post on blog.stratepedia.org

Social Networking Inspiration

KU-CRL's Jim Knight has begun using Twitter, blogs, and other social networking applications to spread ideas and create communities of like-minded individuals. He credits *Groundswell: Winning in a World Transformed by Social Technologies* by Charlene Li and Josh Bernoff (Harvard Business School Press) as part of the inspiration behind his increased use of these technologies.

"If you're interested in this idea of a coaching groundswell," Jim says, "you can get involved by signing up at Twitter at http://twitter.com and following some of the people I'm following. I'm hoping to help create a large group of Twittering coaches and professional developers."

You can find Jim on Twitter by searching for Jim Knight.

Select KU-CRL Online Resources

Stratepedia
http://stratepedia.org
Hello: The Stratepedia Blog • Learning Labs
Depot • Dossier

www.kucrl.org

KU-CRL Media Archives
http://media.kucrl.org/
Podcasts • Videos • Downloadable Files
(including SIM & CLC logos)

Other SIM-Related Online Resources

Jim Knight's instructional coaching blog
jimknightoncoaching.squarespace.com

Jim Knight's Delicious bookmarks
delicious.com/jknight1826

Sue Woodruff's blog
foryoursimformation.blogspot.com

INSIDE THIS ISSUE OF STRATEGRAM

NEW ONLINE

Videos

The Media Archives section of our Web site now contains videos from the 2008 International SIM Conference. Watch keynote addresses by Annemarie Sullivan Palincsar and Michael Fullan, learn more about Stratepedia, or view Don Deshler's session on putting the past in perspective while looking to the future. http://media.kucrl.org

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