Five Missing Pillars of Scientific Reading Instruction

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In the U.S., the National Reading Panel report (2001) set forth five pillars of scientific reading instruction: phonological awareness, phonics, fluency, vocabulary, and comprehension. There is little disagreement these are critical aspects of reading acquisition. But even the NRP listed a number of areas of research that they felt deserved review (but that did not have the time or funding to do). Below is my list of five additional pillars of scientific reading instruction based on the available evidence concerning what really matters for learning to read. Each of these five pillars seems absolutely essential elements of “scientific’ reading instruction. I provide citations for recent papers pointing to the scientific evidence supporting these additional pillars.

1. Access to interesting texts and choice. Kids need easy access to a large supply of texts they can read and are interested in reading. Guthire and Humenick (below) completed a meta-analysis on a number of studies of classroom reading instruction and found that when classroom environments provided lots of interesting and appropriate texts the impact on reading achievement was three times greater than the National Reading Panel found for providing systematic phonics instruction.


2. Matching kids with appropriate texts. Kids cannot learn much from texts they cannot read. They cannot learn to read from difficult texts. They cannot learn science or social studies from difficult texts. The first step in planning effective instruction is finding texts that match the reading level and conceptual levels of the students you will be teaching. While many classrooms provide a large supply of grade level texts that are appropriate for normally developing readers in too many classrooms there is scant supply of off-level texts for struggling readers. Struggling readers need appropriately difficult books in their hands all day long.


3. Writing and reading have reciprocal positive effects. The more effective curriculum plan ensures that reading and writing, composing and comprehension, decoding and spelling lessons are well-linked so as to take advantage of the natural reciprocity between the various reading and language processes. Less effective curriculum plans create lessons where decoding
and spelling are separate lessons, where writing activities have no relationship to reading activities. Such curriculum plans ensure that the natural reciprocity will not be tapped.


**4. Classroom organization: Balance whole class teaching with small group and side-by-side instruction.** Whole class instruction is simply unscientific. Children differ and effective classroom reading instruction provides a balanced mixture of whole class, small group, and side-by-side instruction all day long.


**5. Availability of expert tutoring.** Some students simply need more intensive and more expert instruction if they are to maintain a pace of development that is comparable to their peers. Ensuring that such children have access to expert tutoring is essential if no child is to be left behind. Further, there exists little evidence supporting interventions where the instructional group is larger than 5 students. While tutoring is the most powerful design, expert very small group (n= 2-3) instruction will be sufficient to accelerate the development of many struggling readers.


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What is Evidence-Based Education?

“The integration of professional wisdom with the best empirical evidence in making decisions about how to deliver instruction.”

Grover “Russ” Whitehurst
Assistant Secretary of Education
U.S. Department of Education

From www.ed.gov/offices/OESE/SASA/eb/slide003.html
Show me the RESEARCH!
Benefits of motivational classroom practices for students' reading comprehension and achievement

<table>
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<th>Practice</th>
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Source: John Guthrie and Nicole Humenick. (2004). *Motivating Students to Read: Evidence for Classroom Practices that Increase Reading Motivation and Achievement*
Figure 14.1 Scatterplot showing the relationship between reading comprehension and nonword reading in 411 7-10-year-old children (z-scores).