

Decodable texts: A Case Study in What We Know That Ain't So

Purpose

The purpose of this paper is to present empirical evidence demonstrating significant design flaws in current decodable texts. Given the almost universal adoption of commercial curriculum exclusively using similarly designed decodable texts in early reading instruction across the country (Hiebert, 2010), it is incumbent on the research community to evaluate the use of these materials and to clarify the evidence and theories that should govern the design of early reading materials. Given the specific challenge of this conference—to move beyond what we know as researchers and find ways to improve the quality of public education—the miscommunication and misunderstandings between researchers, state education officials and commercial curriculum designers represents a fundamental roadblock in that endeavor.

By providing a detailed summary and analysis of the relevant literature regarding the role of texts in supporting early literacy development and through careful analysis and discussion of the results from this study, my hope is to clarify “what we know that we know” and highlight the ways in which current curricular practices reflect what Mark Twain famously described as, “what we know that ain't so.” I hope to demonstrate that by failing to take into account text features that the research community has known for years cause difficulties for struggling readers, decodable texts have incorporated specific features that undermine reading development for beginning readers, especially for the lowest performing students who depend on the public school system to learn to read.

Theoretical framework/Perspective

While the debate over the primacy of phonics instruction is settled (NELP, 2008), arguments over the types of books that best support beginning readers are far from resolved (Hiebert, 2009). In terms of agreeing on what we know that we know, Adams (2009) describes fairly and accurately the current state of arguments and evidence in support of using books to support decoding: “at the entry level, the argument for offering books to seat and reinforce the decoding habit is theoretically, empirically and clinically persuasive.” (p. 44). Even the staunchest critics of decodable texts (Allington, 1998, 2005; Hiebert, Cunningham & Mesmer, 2010) support the use of books that allow students to practice decoding and that build off of classroom instruction. Juel & Roper-Schnieder (1985) and Hiebert, Martin & Menon (2005) clearly demonstrated that moderately decodable texts supported a wide range of learning outcomes in contrast to books that emphasized high frequency sight words and were thus minimally decodable. No one is arguing against books that support children practicing decoding or against books that align text design with instruction. This is not the problem.

Somehow in the communication between educational researchers and state education officials, California and Texas translated this modest idea of books that support decoding practice and are generally aligned with classroom instruction into a mandate requiring the exclusive use of decodable texts for early reading instruction. The districts took the additional step of defining decodable texts as those where a high percentage (usually between 75% - 80%) of the words in the text were either previously taught sight words or were made up of spelling patterns that had been previously taught during classroom instruction (a design criteria called lesson-to-text-matching). Exacerbating the problem, curriculum designers, sadly aided by the very education research community that knew better, created sets of texts that ignored 30 years of previous research on text accessibility and instead substituted the theory of lesson-to-text-matching as the preeminent criteria for determining text accessibility. According to the theory, if a teacher has taught the requisite lessons in class, a student will

be able to successfully read a book built on such lessons, no matter what vocabulary is included, what sentence structures are incorporated or at what pace new material is introduced.

Methodology/Data Sources

In order to assess the performance of students reading the decodable texts included as part of their daily instruction, data was collected from two 1st grade classrooms in an urban school district in Northern California. The 45 first grade students at Lockwood Elementary School (pseudonym) were part of a student population of 253 students, a mix of 40% African American, 28% Caucasian, 17% mixed race or non-responding, 8% Asian and 6% Latino. Of the 253 total students (K- 5th grade) 16% participated in the free and reduced lunch program and just 2% of the students were English language learners. The school's academic performance index (API) for 2009 was 864, placing it in the top 80% of California schools. The decodable texts came from SRA/McGraw Hill's Open Court Reading program. In a discussion of the comparative features of decodable texts across different commercially available curricula, Hiebert (2010) wrote, "All of the current core reading programs in 2010 (Scott Foresman's *Reading Street*, MacMillan/McGraw Hill's *Treasures*, Harcourt's *Storytown*, and SRA's *Imagine it!*) have sets of decodables modeled after those of Open Court, 2000". Both teachers followed proscribed lesson plans in introducing new books to students and had roughly similar strategies for reading the book together as a class and then having students read the book independently, with help if necessary.

Twice per week I came to the classrooms, sat at a table in the back of the classroom, and called students one at a time to come and read with me. I showed them the decodable text, asked them if they remembered reading it and then had them read it out loud to me. I kept a detailed record of the sessions and scored each student's reading for accuracy and fluency. In keeping with the model of reading assessment used in both DIBELS and most curriculum embedded assessments, students were asked to read the text independently and if they were unable to read a word correctly after three seconds, I told them the word and marked it as an error. Students who generated errors and continued reading were not corrected. Students were given two minutes to read as much of the text as they could.

Results/Conclusions

In a paper presented at AERA last year, results from student readings of decodable texts were analyzed descriptively, demonstrating that both mid- and low-performing students struggled to read the decodable texts accurately and fluently. The question raised at the end of the earlier study was why? While the easiest answer might be to point out that struggling readers have always struggled—with whole language texts in the late 90's, with linguistic readers before those and with look-say texts before those—students with DIBELS scores in the 40th – 60th percentiles nationally struggled with the decodable texts as well and the data for this study came from a school in the 80th percentile of California schools.

In laying out the student reading data for analysis, I set up a spread sheet with individual worksheets for each book where students were listed by rows on the y-axis and each word of each story was listed by columns along the top on the x-axis. In order to get a rough picture of what was happening, for each student error, I simply entered an "X" on the student's row under the column for the word where they had made the error. Once all the data was entered for all the books, the results were visually emphatic (see Appendix 1). While there was clearly a certain amount of randomness to the errors and there were discernible horizontal lines representing high error rates for the lowest performing students, what was clearly apparent were the vertical patterns of errors at specific locations in each book. In some books it would be two or three locations with 50% or more students making errors, in other books, over 80% of

the students made errors at a specific point. Across almost all of the 25 books, this pattern of specific error locations was replicated.

A post hoc analysis comparing text features coincident with high error rates and research on early reading materials revealed a set of three easily identifiable text features that illustrate what critics of decodable texts have been arguing over the last ten years and what the research community has been demonstrating over the last 30 years—that specific text features frequently found in decodable texts are problematic for beginning readers. The easiest feature to identify was the frequent presence of low frequency words (Hiebert et al, 2010), used by creators of decodable texts as examples of target spelling patterns. 85% of students, for example, misread the word *trudged* in a story, even though all of the phonics lessons required to decode the word had been previously taught. A second pattern closely associated with the localized errors was the presence of awkward language structures (Amsterdam, Ammon & Simmons, 1990). In describing what happened to a farmer who stubbed his toe, the phrase “That brings woe to Farmer Joe” caused a significantly disproportionate number of errors, even confusing students who had successfully decoded the word *brings* previously. In an attempt to discern patterns in the seemingly randomly distributed remaining errors, over 60% of those errors occurred on sight words that had been previously taught. Given that sight words make up such a high percentage of the most common words in the English language, it’s not surprising, but when seen through the lens of Hiebert et al’s (2010) analysis of the pace of sight word introduction and the burden it places on low performing students, patterns of repeated mistakes on the same sight words book after book indicate that students were consistently unable to read these words.

These three features found repeatedly in the decodable texts—frequent use of low-frequency words, the presence of awkward language structures and the early inclusion of a large number of sight words—explained an overwhelmingly significant percentage of the errors made by students. The presence of all three of these features in decodable texts stems from the singular focus on lesson-to-text-matching as the primary support strategy built into decodable texts and the eschewing of earlier research-based strategies of text scaffolding that took into account vocabulary control, sentence structure and the pace of introduction of new material. These data clearly indicate that the principal of lesson-to-text-matching is not sufficient to support adequate levels of accuracy for most students when coupled with problematic design decisions that ignore word frequency, sentence structure and the pace of introduction of new materials. These problematic text features are most disruptive for low-performing students, the ones who most depend on the public school system to teach them to read.

Scientific contribution

This study demonstrates empirically significant design flaws in current decodable texts. Given the almost universal adoption of commercial curriculum exclusively using similarly designed decodable texts in early reading instruction across the country, it is incumbent on the research community to challenge this practice and clarify the principles and design criteria that need to be used in creating materials to support beginning readers. As the specific goal of this conference is using what we know to improve public education, the research community cannot sit silently by while state administrators and commercial publishers ignore or misinterpret well known research and make poor decisions for roughly 20 million early elementary school students. If presented with a description of this research project and these findings, researchers from all camps would readily admit, “of course, we’ve known that for years.” Yet even though “we know what we know”, aside from a few voices repeating the same critiques over and over again, the research community has not found a way to improve curricular practice, even when the group most significantly affected by this problem are struggling early readers who are predominantly low-SES, minority students—the very group we say we’re most interested in helping. My

hope is that the evidence contained in this simple, clear data set of student reading performance using decodable texts will spur the research community to test and replicate these findings and upon doing so, to find ways to improve the quality of beginning reading materials for all students.

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