Lessons from My Mother: Reflections on the National Early Literacy Panel Report

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When it came time to find the man of my dreams, my mother, a yenta of the best sort, would often speak in homilies. She would remind me to stay away from those super-handsome flashy types, you know, the ones that stand out immediately in the crowd because as she would say, "they don't wear well" and moreover, "a nebbish would drive you meshuga." Rather, better look for the smart one, the "mensch"--someone you really want to hang out with over time—someone with "staying power."

Well, the mensch won out and now some forty years later, I'd say with some degree of certainty that my mother was right. (You may need a translational guide, but hopefully context will help.) Looks can be deceiving, especially when the pickings are slim. But when you move outside of your immediate eye view, you begin to see a whole new world out there, something far more deep and certainly, more meaningful.

There's something to be said about my mother's wise counsel. In fact, you might argue that it's central to understanding a basic conundrum of consensus panels, including the National Reading Panel Report, and now, the National Early Literacy Panel. In the latter case, the esteemed panel of scholars was charged with reviewing the existing research in early literacy. The pickings were pretty slim--that is according to their inclusion coding. Over the eight years of their work, only 190 studies met their criteria for examining the effectiveness of all the instructional strategies, programs or practices in

early literacy. That translates into 19 studies on shared book reading (others have found over 30) (Mol, Bus & DeJon, 2009); 23 studies on home and school (193 in a best evidence synthesis, White, Taylor & Moss, 1992); 33 preschool and intervention studies (take away 9 since 10 of them focused on one project) and a mere 28 language enhancement interventions (we found 111 in preK and kindergarten vocabulary interventions alone) (Marulis & Neuman, 2009). The bulk of the studies they report--over 40% of them--focused on code based interventions. And you needn't be particularly prescient to guess what they found: As Monty Hall might say, behind "door number 2" they discovered that alphabet knowledge (code), phonological awareness (code), phonological memory (code); writing one's own name (code); rapid naming of letters (code) were the strongest predictors of later measures of literacy development.

The problem, of course, and I feel their pain, is that you can't examine what hasn't been tested. While many of us might think that at least something must be missing from this equation for successful reading, you'd be hard-pressed to convincingly prove your case. In fact, if your goal was to identify interventions, parenting activities, and instructional practices that promote the development of children's early literacy skills, more likely than not, you'd come up with the same results. Code = early reading development.

But while the existing evidence might suggest a code-focus, a different type of empiricism begins to argue against such a narrow focus. Just observe a really good preschool. Look at what's going on. The most engaging classrooms, the ones where children seem actively involved in projects or investigations aren't just fiddling around with sounds associated with printed letters. Sure, you'll inevitably see ABC's, tons of

books in all locations, and paper, pencils and writing implements in the room. But these materials are not the drivers of the activities.

Rather, they stand in service of a much more important focus: the desire to know. Children are natural knowledge seekers. Whether its orca whales, dinosaurs, or the latest technological doo-dad, children's activities are often guided by their need to know. They want to become expert in a domain. And it's this goal that drives their ambition to come to school to learn about literacy among many other skills, not the ability to "rapidly name a sequence of repeating random sets of pictures of objects."

Now all well and good you might say. Of course it's important to know things. But the discussion here is supposed to be about literacy development, not background knowledge or conceptual development. If the charge to the committee had been to look at science achievement, we might take a look at content knowledge. However, if we are to stick to the script, to discern what it takes to develop conventional literacy skills (e.g. decoding, oral reading fluency, comprehension, writing and spelling), it only make sense to target aspects of literacy that are clearly the focus of reading, writing, and spelling development.

Or does it? Because here's where things get tricky. On the skills listed above defining conventional literacy, you'll see one that sticks out like a sore thumb: comprehension. All of the others might be considered as an iteration of decoding. But this skill of comprehension, especially in the early years, is different. It's not decoding, and it's not the understanding of text--at least in the conventional form. Only the most precocious child in the birth through five age range can really engage in the kind of text

reading that is adequately measured through questioning, synthesizing, and thinking aloud.

In fact, most of what we know about comprehension occurs after children have begun to fail at it. You'll hear teachers describe it like this: "The student can't understand the text at all." "The student reads the text by totally changing its meaning." "The student misreads the text by taking words and phrases out of context ("under-reading"). "The student is a "word caller" (e.g. someone who can read over the words but not understand them.). Whether you call it the "fourth grade slump" (Chall, Jacobs & Baldwin, 1990) or the road to "drop-out" the problem is the same: As the texts get harder and the academic language gets tougher, students can't understand what they read.

So let's step back a minute and reflect on what we could do to change this unfortunate trajectory. Given that the large majority of children have the wherewithal to read and read well, what might we need to do in these early years to help children get on the road to successful reading, not just in kindergarten, but in the later years when the comprehension demands get harder?

Some would take the ill-informed route—that is, to hit the code-based interventions highlighted in the "Developing Early Literacy" report even harder. Just think about it--instead of outdoor activities or play, we could have phonological memory time or have fun with random letters and digits. This solution has become increasingly popular across the country, more or less guaranteeing a few more years on the Superintendent's contract. Having essentially memorized the Peabody Picture Vocabulary Test, these children will be better prepared, they think, to tackle the complexities of the code and the more formal process of learning to read.

But there is another solution. Taking my mother's advice to heart, let's consider an approach which may have more "staying power." Perhaps the true path to literacy is not the procedural skills that stand out in the crowd, but the knowledge of content and concept that underlie its foundation. In this case, our efforts would be to get children to think, to grapple with ideas, to experience the 'ah-ah,' the "flow' that comes when we achieve something meaningful against resistance. In this scenario, knowledge is the headline star with conventional literacy skills, the supporting cast members.

Now if we think that knowledge must come into play (mainly because if we want students to learn how to think when they read, they must have something to think about), we could have approached the panel's charge in a somewhat different way. Instead of looking for studies only about reading, we could look for studies about content understanding, or comprehension. Luckily we happen upon Taconis and his colleagues who did just that, finding 22 studies describing 40 experiments of reading comprehension in science (Taconis, Ferguson-Hessler & Broekkamp, 2001). Like the current analysis in the "Developing Early Literacy" report, they put these rigorous studies to the meta-analysis mix, analyzed in a straight-forward way, and looked for mediators and moderators. But their results seemed totally counter-intuitive-- especially given the predictive power of the code-based interventions described in the NELP report. Surprisingly, none of the treatments that focus on skills make a bit of difference on students' comprehension of science. Rather, it turns out that the most effective interventions all give attention to the structure and function of the knowledge base. Even more powerful were those interventions that help students' integrate knowledge into larger categories and concepts.

This seems strange and being the skeptical scientists that we are, we continue our search this time looking for comprehension in other areas. Here, our meta-analysis elixir goes awry since we can't seem to analyze all these topics in any straight-forward way. We have to read the details of these studies. For example, in one study (Recht & Leslie, 1988) we look at children's recall and comprehension of baseball. In this case, the researchers asked 7th grade students to read a grade-level passage that described a half inning of a baseball game. Half of these students are good readers, the other half poor readers according to a standardized reading test. Using a task somewhat similar to a think-aloud protocol, the researchers divide the passage into five parts, and after each part students are asked to use a replica of a baseball field and players and to react and describe what they read. It turns out that background knowledge of baseball trumps all the skills measured on the standardized achievement test: Poor readers with high knowledge of baseball display better comprehension than good readers with low knowledge of baseball.

What is going on here? It must be the test. Or could knowledge actually aide working memory? And might memory aide comprehension of text? We continue our search and come upon studies by Wolfgang Schneider (Schneider & Korkel, 1989), and Michelle Chi (Chi, Feltovich, & Glaser, 1981) and others (Ceci, 1990) who study expert performers--racetrack handicappers; baseball statisticians, bowling league scorers, you name it. They go one step further, looking at high and low aptitude children, some of whom have prior knowledge of the subject domain and some of whom do not.

For example, here's what Schneider and his colleagues (Schneider, Korkel, & Weinert, 1990) decide to do. In one of their first experiments, they compare 576 young soccer experts and novices on their ability to memorize details, inferences, and to detect

basic contradictions in a story that was contrived to include lots of misinformation. Not surprisingly, the experts wildly outperform the novices: experts remember more details, better apply what they read to new situations, and detect more contradictions than their novice peers. But here's something that Schneider didn't anticipate: the high- and low-aptitude experts do not differ from one another. In other words, there is virtually no distinction between their performance on these tasks, and both are clearly superior to high-aptitude and low-aptitude novices. The high-aptitude, low-knowledge students do no better than their low-aptitude peers.

Being a meticulous scientist, he tries it again, this time with another 185 students (Schneider et al., 1990). He reasons that perhaps the tests might have inappropriately prompted students' recall and understanding, or that the skills associated with executive functioning, the holy grail of IQ like memory monitoring techniques, might differ. This time around, he chooses a more open-ended task, being careful not to cue or prime students in any way. He asks them to "think aloud" as they read, and to recall what they had learned from this text. This time, even memory monitoring and prediction accuracy on these tasks is superior for students who have more prior knowledge about the game, despite differences in reading achievement. Even more remarkable, others looking into such areas as chess, computer programming, bridge, circuit design, map reading, music, and dance performance show the same result (see Willingham, 2009, for review). Knowledge improves comprehension and performance.

So if we would have examined comprehension in other content domains, then the major headline in "Developing Early Literacy" might look like this: All students will learn more and comprehend better if they have greater background knowledge. Or we

might even say it stronger: To be successful in reading comprehension, students must acquire knowledge.

Curiously, however, there's not a smidgen of evidence on background knowledge in the Report. In one case, I came upon the term 'world knowledge' as a modifier of oral language but I could never find it on its own. It's not a predictor; it's not an independent variable—it's just missing.

Why you might ask? Most likely, it may be due to the old-fashioned notion that 'learning to read' precedes 'reading to learn.' And this might be the crux of the problem in the NELP. To examine the importance of knowledge and concepts, the committee members would have had to look at learning to read in rich content domains. Take, for example, Deborah Simmons and her team (Simmons, et al., 2008) who have developed the "World" intervention designed to teach the content areas of science and social studies through shared book reading in kindergarten. Or our work on the "World of Words" (WOW) (Neuman et al, 2009) in which we teach preschoolers' vocabulary through content areas of health, science, social studies and math. By the end of a typical eight week session, we have children sorting and categorizing the conceptual properties of words, and making inferences beyond what they have been specifically taught. Others before us, as well, in science and math (Zur & Gelman, 1994; Sarama & Clements, 1994) have examined children's knowledge gains in content domains through such conventional measures as retellings, and listening comprehension, as well as more unconventional measures as problem sets—solving new problems that require children to use their knowledge. None of these, however, would have likely made the committee's cut with its narrow focus on skills in reading.

And it is here where my mother's sage advice becomes even clearer. If we're to stay true to our long-desired goal of high achievement for all children, then we cannot simply focus on the nearest target—decoding. Rather, we must look toward the goal that has real "staying power"—the complex skill of reading comprehension and content learning.

This will mean that to be successful, children will need to learn both code and content knowledge. Code-related skills, the essential alphabetic principles that make up our language, are a critical component in learning to reading. But while these skills are necessary, they are certainly not sufficient. At the same time, these skills must be accompanied by a massive and in-depth foundation of factual knowledge.

For those who are new to early childhood, this built-up store of knowledge can't be drummed into children as if they were empty receptacles just waiting for our precious insights. Children need time--to actively play with ideas, experience and ask questions, connect new learning with what they already know. Activities that pose problems; get children immersed in interesting topics, allow them the time to develop expertise, all contribute to knowledge gains. Such efforts can't be delayed until children are supposedly reading to learn; nor can they be subordinated in any way to other skills. Code and content learning must be emphasized simultaneously.

Suppose, for example, instead of focusing on print referencing or some other basic skill in shared reading, we returned book reading to its original purpose: learning about ideas and the words that convey them. We read to little 4-year old Abigail a story about kings and queens. Instead of going on to a new topic, over the next few days we read more stories about kings and queens, both fiction and nonfiction. Over the course of

the readings, Abigail learns how they lived, what they did, what problems they had to solve. Her questions become more pointed, her curiosity is peaked as she develops a growing knowledge base on the topic. We develop some activities, perhaps some play settings that allow Abigail and her friends to use what they are learning, constructing new meaning through play. And the chances are good that Abigail will not only increase her general knowledge but the words she uses to express her ideas. If we took knowledge and topic immersion as a significant goal, just consider how we might organize instruction. Instead of a cafeteria approach, with a little bit of this and little bit of that, we could use activities like shared book reading for the knowledge and language they bring to the classroom and for the challenging conversations they spark.

When I read the "Developing Early Readers" consensus report, I am reminded of one last missive from my mother. "Be careful what you wish for," she would remind me when I was pining for one of those popular guys in high school. Through no fault of their own, this report could be the subject of much mischief. There will be people out there who will apply these skills like a laundry list of what they should teach. They'll work on alphabet knowledge, phonological awareness, phonological memory, rapid naming of random letters and digits and colors and objects, and they will confidently argue that they are teaching children to read.

But they are not. What they are doing is exposing children to a set of narrow, largely procedural skills, and training them to recite, mimic, and repeat nonsense or what appears to them to be meaningless at the time. They will be teaching children how to react and not how to think. Children deserve better. In contrast to such an approach, we need to expose children to language-rich and content-rich settings that can help them

acquire the broad array of knowledge, skills, and dispositions that build a foundation for literacy and content learning. The early years are just too precious to get it wrong.

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