

This Is Why We Don't Have Better Readers: Response to Lucy Calkins

Mark S. Seidenberg
seidenberg@wisc.edu
@markseidenberg

Lucy Calkins has written a manifesto entitled "No One Gets To Own The Term 'Science Of Reading'". I am a scientist who studies reading. Her document is not about the science that I know; it is about Lucy Calkins. Dr. Calkins is a prolific pedagogical entrepreneur who has published numerous curricula and supporting materials for teaching reading and writing to children. She is among the most successful, influential reading educators in this country. According to an [EdWeek survey](#) published this week, hers is among the 5 most commonly used reading curricula in the country.

The purpose of the document is to protect her brand, her market share, and her standing among her many followers. Dr. Calkins is not interested in examining the educational implications of reading science. She is interested in co-opting the term so that the science cannot be used to discredit her products.

Dr. Calkins has reason to be feeling defensive. As everyone knows, our schools routinely fail at teaching large numbers of children to become skilled readers. The 2019 [NAEP](#) scores released in October were even worse than usual: reading scores *declined* in more than half the states; the black-white achievement gap didn't change because scores for both groups *decreased* in parallel. As on every round since 1992, fewer than half of 4th and 8th graders in the nationally-representative sample read above a basic level. The story is the same on the most recent data from the [PISA](#), the big international reading assessment.

The educational establishment is complicit in these outcomes. Teachers are underprepared for a difficult job. They are taught grossly out of date information about how reading works and how children learn, stories that are contradicted by basic research in cognitive science and neuroscience. They are encouraged to use ineffective practices that make it harder for children to become skilled readers, especially those at risk for other reasons such as poverty. This has been the situation for several decades. I documented this history in my [book](#).

Many people--for example, the families of children who struggle with reading; teachers who don't buy the party line; citizens who are concerned about whether there are enough literate people to run a democracy, distinguish facts from "alternative facts", or save the planet--are fed up with the educational establishment's chronic stone-walling. They're angry, and they're organizing.

In response to pressure from grass-roots, parent-led organizations such as Decoding Dyslexia, legislation related to reading or dyslexia has been passed or is under consideration in over 40 states. Efforts have mainly focused on raising the bar on teacher qualifications via tougher licensure exams, and screening children at risk for reading difficulties in kindergarten or first grade.

Dr. Calkins may have been moved to act because legislators are beginning to take a critical look at commercial reading curricula. The elementary education market is enormous--about 15 million children in grades K-3 alone--and the products (teacher manuals, grade-level books tied to the curriculum, supplementary materials, support services, etc.) are glitzy, expensive systems marketed by edutech

behemoths such as Pearson PLC (2018 revenues \$4 billion) and Houghton Mifflin Harcourt (2018 revenues \$1 billion). If these products incorporate and perpetuate discredited instructional practices, why should states keep buying them? (1)

The writing is on the wall in Arkansas, which passed [legislation](#) "to require that the curriculum, professional development, and graduate studies recommendations for a public school district and open-enrollment public charter school be in accordance with the science of reading; [and] to require that the department of education create an approved list of curriculum programs that are supported by the science of reading..." (2)

The list hasn't been compiled yet, but they have already announced that programs that use a method called the "three cueing systems model of reading or visual memory as the primary basis for teaching word recognition" will be disqualified. (3)

Today Arkansas, tomorrow the much larger markets in California, Texas, Florida, New York. Sensing which way the winds are blowing, Dr. Calkins has made a pre-emptory move to protect her franchise against the judgment that it contains discredited practices. If no one "owns the term 'science of reading,'" then her products can't be disqualified for failing to incorporate it.

This is just rhetorical bluster. No one "owns" the term, unless someone has trademarked it. The question is whether educators like Calkins understand the science well enough to use it to examine the validity of their beliefs about reading and act on its implications for instruction.

Lucy Calkins' Brand of Reading Science

In case her rhetorical ploy should fail, Calkins also argues that her approach is consistent with this science. She focuses on three hot-button topics:

1. Phonics. She's for it and always has been. "I, for one, have for decades stood strongly with advocates of reading science on their argument that phonics needs to be explicitly taught." Moreover, she thinks everyone else is also on board: "I do not know any school system that doesn't ascribe to the belief that explicit instruction in phonics is one of the foundations for learning to read and write."

2. 3-cueing approach. She's not in favor of it, and thinks others agree: "I do not know anyone, however, who defines his or her method for teaching reading as 'the three cueing systems.' That phrase is instead most associated with a form of reading assessment known as running records." And later: "[T]he three-cueing systems approach" is not, to my knowledge, a method of teaching reading...."

3. She recognizes dyslexia as a genuine condition that may require intervention that few teachers can provide. She acknowledges that many teachers would benefit from additional training related to phonics and dyslexia.

Calkins' recognition of dyslexia is a positive step, and she alludes to the unresolved problem: even if dyslexics are identified early enough to be helped the most, few educators have the training to provide adequate intervention. Dyslexia raises other difficult issues that I'll discuss in a future post.

With regard to phonics and 3-cueing, however, Dr. Calkins' arguments show how little of the relevant science she understands and validate the concern that her methods are out of touch with it. Her assertions about what does and does not happen in schools are risible.

Dr. Calkins asserts that she's pro phonics and anti 3-cueing but fails to recognize that she conceptualizes them the same way. Let's look. Her examples address what happens when a child is having difficulty reading a word. She says,

"The important thing, then, is to teach kids that they needn't freeze when they come to a hard word, nor skip past it. They needn't be stymied by the word and stop reading. The important thing is to teach them that they have resources to draw upon, and to use those resources to develop stamina. For example, they can look at the unfamiliar word and break it into parts and think, *Have I seen that part before?* and they can draw on their knowledge of letter-sound correspondence to decode. They also can reread the sentence and think, *What could this be?* and then check that hypothesis against the actual letters. If the word those kids encounter does happen to be *horse*, (to continue with the example) they can sound out the initial consonant /h/ and then proceed to either the /o/—which has 16 sounds, so it's not easy!—or to the /or/ which will be a more useful chunk. Teaching kids to flexibly tackle hard words, looking for chunks, is important—a skill that kids get tons of practice with then they write."

Dr. Calkins has just described the process of identifying a word by combining cues. The cues can involve guessing what the meaning of the word might be in that context, looking at the word to see if it is familiar, looking for familiar parts of a word, or trying to figure out some of the sounds, but good luck with that because the letter o has 16 pronunciations. Dr. Calkins says she disdains 3-cueing, but the method is right there in her document.

The problem with this approach is that it is a slow, unreliable way to read words and an inefficient way to develop word recognition skill. Dr. Calkins treats word recognition as a reasoning problem—like solving a puzzle. She is dedicated to the educational precept that children learn best by discovering how systems work rather than being told. The process she describes is highly inefficient—the child has to generate the cues, combine the cues, generate a candidate word, evaluate whether it seems right, rinse and repeat—though she thinks it manageable if the child develops sufficient stamina.

Stamina? Skilled word recognition is like a reflex. When the eyes fixate on a word it triggers fast, automatic neural processes that yield recognition within a hundred milliseconds or so. You are aware of the result, understanding the word, but the underlying computations are subconscious. Fast, automatic recognition frees the reading brain to focus on other things, like comprehending the text. If word reading demands stamina, you're doing it wrong. That is the relevant science.

Efficient word recognition is accomplished by what Daniel Kahneman called "system one" thinking, the "fast" unconscious system. Dr. Calkins is treating it like a problem for "system two"—the slow, conscious one. This is a fundamental error.

Is using the slower, reasoning approach a good way to become a skilled reader? Absolutely not. Inferring the identity of a word from the cues Dr. Calkins emphasizes is really hard. (It takes *stamina*.) It's also fallible unless the child is already familiar with the text or the word occurs in an unusually predictable context ("I have five fingers on my *hand*.") Worse, Dr. Calkins ignores the fact that the child is also

learning from their mistaken guesses. Our brains are continually updating as we engage in activities like reading. A child who is laboriously deducing the meaning of a word from unreliable cues is also learning those mistaken associations and responses. This is truly how to make learning to read hard.

The most reliable cue to a word's identity is its pronunciation--if you know the correspondences between spelling and sound. A beginning reader who sounds out a word and says it aloud can recognize it if it is in their spoken word vocabulary. With appropriate instruction, children rapidly gain the ability to generate the sound of the word in their mind's ear--without pronouncing it aloud. This mental code is called "phonology". It doesn't require moving your lips. (4)

Educators like Calkins discourage relying on phonology--it's usually the last cue they mention--because the English writing system is said to be so complex: all those pronunciations of the letter o, for example. In fact the system is far more consistent than advertised. In the *horse* example, the fact that o has many pronunciations in isolation is irrelevant because readers don't generate phonological codes letter by letter. The pronunciation of OR is very consistent (*short, cord, torn* etc.), and so is HOR (*horse, horn, shorn, horde*). The system seems inconsistent because of pairs like *horse-worse*, but *worse* is part of a different pattern, conditioned by the initial w: *worse, worst, word, world* etc. Children pick up these patterns with adequate instruction and experience.

So, when Dr. Calkins says she does not know of anyone who relies on the "3-cuing method", she is playing a terminological game, describing the strategy without using the term. Just changing the name might be one way to defeat Arkansas-type legislation.

Dr. Calkins has preached this *stamina* approach to word reading for years. Here is a version from her 2001 opus "The Art of Teaching Reading":

"It's important to show children that we solve words by relying on a range of flexible strategies. First we rely on meaning: "the boy rode (something) to the city." We know that the problematic word is some kind of transportation. Next we usually try to recognize the word or parts of the word. Later in this chapter I'll show ways in which we help children use spelling patterns of word chunks as they read and write. For now, it is enough to say that if we don't have a visual memory for the word, we often have it for a chunk of the word (in train we've seen rain, in routine we've seen tine). It is important for a reader to ask "what do I know that can help me with this word." We also rely on our knowledge of the meanings of words (electric, electricity, and electrician are spelled similarly despite their differences in sounds because of their shared meaning base). The English language is not phonemically regular; an overreliance on phonics is a common trademark of poor spellers and word solvers [readers]. Phonetic spellers may spell action as aksion and always and allways."

This is, again, the multiple-cuing idea par excellence. This particular example is helpful because it illustrates that "cues" are often unreliable or misleading. Consider "The boy who rode (something) to the city". Inferring something about the meaning of the (something) word only works if the child has read and understood the rest of the words. Reading research since the 1980s has shown that weaker readers (not stronger ones) rely more on the context to guess words, which is ineffective because they are also poor at reading the ones in the context. The boy could also have ridden excitedly to the city, and in less contrived examples the range of options is even larger.

Dr. Calkins then recommends the strategy of looking for common components of words that are spelled similarly. *Electric-electricity-electrician* overlap in meaning. But she also recommends applying this strategy to words like *rain* and *train*, which are semantically unrelated. Looking for the *rain* in *train* is relevant if the child is trying to sound out the words, but Dr. Calkins doesn't mention that and or recommend it. Looking for the shared meanings of *train* and *rain* is an opportunity to learn false associations between them.

In her examples, Dr. Calkins functions as an oracle who knows which dimensions of words are relevant cues in which cases, but the child would have to know vastly more about the structure of the language--about as much as she does--to do the same.

Looking for the shared meanings of similarly-spelled words is also an unreliable strategy. The *electric* words share meaning because they are morphologically related: they are derived from the same base morpheme *electric*. However, English morphology is even *less* consistent than the spelling-sound system. A teacher teaches and baker bakes but a number doesn't numb and there's no butt in butter. Nor for that matter is there spin in spinach, corn in corner, or liver in deliver, and sweetbreads are neither sweet nor bread. These are all cases in which a spelling pattern functions as a morpheme in some words but not others, and English is full of them. Searching for the shared meanings of these words leads the reader way off course.

Dr. Calkins claims to have supported phonics for decades, but not in "The Art of Teaching Reading." The book is 580 pages long. Phonics is discussed on 6 pages, most of which are extended anecdotes of trite examples such as children noticing that several of their names begin with /j/, examining features of the word JACOB, and discovering that two words contain the sound /at/. Her one substantive comment about it is the observation that English is not phonemically regular and that overreliance on phonics is common among poor readers and spellers. Nothing here about how one would actually teach phonics efficiently.

Referring to her commitment to phonics, Dr. Calkins says:

"It is equally important that children use phonics to read, which means that when they come to a sentence that says "I got on my horse and rode away," and the child first reads *pony* for *horse*, the child should be told, "Check the letters," or "Try that again," or asked, "Does that look right?" It is not helpful for teachers to accept *pony* for *horse* nor for them to say, "Skip the hard words," or "Just guess and keep going." Figuring out unfamiliar words gives kids opportunities to apply the knowledge they are learning during phonics as they read."

Whoa. A child who misreads *horse* as *pony* does not need to check the letters or decide if it looks right. That child needs to stop guessing and learn to decode words. A semantic substitution error like *horse* read as *pony* only occurs if the child is guessing based on "cues". Such errors also occur in some types of brain-injured patients whose reading networks have been severely damaged (they are called semantic paralexias). They are not characteristic of normal reading, and it is disturbing that Dr. Calkins treats them as though they were. It's here that I question whether Dr. Calkins is as committed to phonics as she avers.

Dr. Calkins says it's not OK to skip the hard words or just guess and keep going, but it is a common instructional practice, as many parents can attest. That may be because teachers are listening to a different pedagogical authority, Kenneth Goodman, who invented the discredited "psycholinguistic guessing game" theory of reading and maintains to this day that guessing is fine even if the child guesses wrong. (As he says in Emily Hanford's excellent podcast/documentary [here](#).)

It is obvious that reading words accurately and fluently matters. For beginning readers and skilled readers. For success in school and at work. For personal health and safety. For science. It takes a deep immersion in educational ideology to believe otherwise. The reading strategies and pedagogical practices that Calkins, Goodman, and many others in the educational establishment support make it harder to gain this foundational skill.

The Take-Away

Dr. Calkins' attempt to wrap her work in the mantle of science fails because she has yet to absorb basic findings that contradict tenets of her approach. Her document is full of contradictions. She says supports phonics but also decries the "hype about phonics" and disparages unnamed critics as "phonics-centric" advocates of "phonics at the expense of everything else." As I have written [elsewhere](#),

"The overwhelming evidence demonstrating the importance of phonology in reading does not in any way entail, nor should it be taken to imply, that phonics instruction is all that is involved. Every rational account of learning to read includes it as one of several components, necessary but not sufficient."

Dr. Calkins derides the 3-cueing approach but the concept is deeply embedded in her erroneous view of how reading works and children learn, as her document confirms.

It's obvious that other curriculum publishers and authors will follow Dr. Calkins' lead in claiming that their products are compatible with the science of reading. For a while now there has been pressure to show that the materials are "evidence-based," but the term has little meaning because educators have their own concept of what counts as evidence. Soon they will all claim to be consistent with the "science of reading" and it will be equally meaningless unless people look beyond the label at the assumptions about reading and learning the materials incorporate and the methods they employ.

Will these observations have any impact on Dr. Calkins' dedicated followers, who have responded to her piece with fervent expressions of support and gratitude on social media?

Let's see: a charismatic leader with extraordinary self-marketing skills develops a base of fiercely loyal followers. The person gets called on the accuracy of what they have said. For the followers, identification with the leader is more important than the truth. Why, a person could kill a kid's interest in reading in the middle of Fifth Avenue and the followers would blame the kid's lack of stamina.

Footnotes

1. Calkins' products are marketed by Heinemann, for many years the go-to source for Whole Language instructional materials.

2. Arkansas passed a "Right to Read" act in 2017, which focuses on teacher qualifications (they will have to demonstrate "proficiency or awareness in scientific reading instruction"). The 2019 act is an extension that focuses on acceptable curricula and instructional practices.

3. The three-cueing approach refers to teaching children to identify words by combining multiple "cues". Cues could include the pictures in a book, words in the sentence context, knowledge about the topic, the first letter or two of a word, and others. It's very [popular](#). I demolished it in my book, pp. 300-304.

4. Dr. Calkins' use of the term "phonics" differs from convention. She writes:

"Whereas typically developing children come to school having already learned three major language systems—meaning (semantics), sentence structure (syntax) and sound (phonics), they do not know [the written code]."

[Phonics](#) refers to instruction about the connections between print and sound. Children do not come to school knowing "phonics." Having learned a spoken language they know about phonological properties of words--how they are pronounced and sound.

Later she says, " We are clear that children should not just study phonics, they should also *use* phonics every day, often." And also, "It is equally important that children use phonics to read..." Again, these are non sequiturs. *Teachers* might use phonics instruction, but children use what they have learned, which are spelling-sound correspondences.

Whereas Dr. Calkins rejects the term 3-cueing but employs the teaching method, here she adopts the term "phonics" but avoids the method.

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