

BLOG

A Conversation About the Science of Reading and Early Reading Instruction with Dr. Louisa Moats

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By [Kelly Stuart](#) & [Gina Fugnitto](#) | Categories: [Expert Voices](#), [Science of Reading](#), [Reading](#), [Reading Intervention and Acceleration \(Grades K–5\)](#)



Dr. Louisa Moats

Collaborative Classroom is dedicated to developing curricula aligned with the research that informs the “science of reading” conversation.

We recently had the great pleasure of sitting down with [Louisa C. Moats](#), EdD, the nationally recognized researcher and authority on literacy education who has written widely on topics including reading instruction, the professional development of teachers, and the relationships among language, reading, and spelling.

In this interview, Dr. Moats shares her insights about the current discussion of the science of reading, her reflections on the Common Core State Standards (CCSS) for early reading, the types of training that teachers of reading need, and her assessment of how the [SIPPS](#) program aligns with the research about successful reading instruction. We hope that you find this interview stimulating and helpful for your own practice.

Collaborative Classroom: For decades, you have played a central role in growing the body of knowledge around how children learn to read. To frame this conversation for our audience, could you begin by defining the science of reading?

Dr. Louisa Moats: The body of work referred to as the “science of reading” is not an ideology, a philosophy, a political agenda, a one-size-fits-all approach, a program of instruction, nor a specific component of instruction.

It is the emerging consensus from many related disciplines, based on literally thousands of studies, supported by hundreds of millions of research dollars, conducted across the world in many languages. These studies have revealed a great deal about how we learn to read, what goes wrong when students don’t learn, and what kind of instruction is most likely to work the best for the most students.



Collaborative Classroom: What is your perspective on the current national discussion about the science of reading? For example, [Emily Hanford](#) of American Public Media has done significant reporting that has really elevated the conversation.

Dr. Louisa Moats: These days I have moments when I feel more optimistic. Emily Hanford’s reports have been the catalyst sparking our current national discussion.¹ A growing number of states are confronting what is wrong with the way many children are being taught to read. I’m inspired by the dialogue and courage of the people who know enough about the science of reading to offer a vigorous critique of those practices, programs, and approaches that just don’t work for most children.

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I am also optimistic about the [recent report](#) out from the National Council on Teacher Quality. There’s an increasing trend of new teachers being trained in the components of reading, and I think that many veteran educators are open to deepening their learning.

However, there’s still a long way to go. In general our teaching practice lags far behind what the research tells us. We consolidated the research on what it takes to teach children to read way back

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Collaborative Classroom: You were asked to weigh in on the Common Core State Standards (CCSS) when they were being created. However, I have recently heard you say publicly that, in the end, the final published standards are not well aligned with the research on how children acquire reading competency. Could you please share your thinking about the disconnect between the research and the Common Core Standards for early reading?

Dr. Louisa Moats: There is so much in the Common Core State Standards that just doesn't square with how the majority of children learn to read. For instance, there are incorrect assumptions made about pacing, some of which are simply wrong and others that reflect the needs of only a fraction of students in any given classroom.



Because the standards demand an instructional pace that is developmentally too fast for a majority of students, there is tremendous pressure on teachers to move extremely quickly through instruction; as a result, many students cannot keep up. Their reading growth becomes fragmented. It's an artificial acceleration of reading growth.

Research has taught us a great deal about the optimal rate of instruction, yet the standards basically ignore what a large number of students need. There are unintended outcomes of this accelerated pace of instruction, namely an increased use of rote instruction, such as piles of flash cards; kids are getting drilled on words, without a clue of how to actually look at a word and accurately decode it. And this rote instruction simply doesn't work.

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Unfortunately, some of the people who led the development of the CCSS were more well versed on research pertaining to middle and high school and didn't have a strong grasp of beginning reading instruction. They didn't understand the complexities of teaching young children to read. They didn't know all the data about the pace of learning, the individual differences kids bring, and the sheer volume of practice that most children need to consolidate reading skills.



These are things that those of us in the research community have understood since the early 1990s. For example, researchers have known for a very long time how many times a struggling reader needs to look at a word in order to form a mental map between the print and speech. It can take children as many as 40 times before they recognize it as a whole word. It takes a while for the cognitive pathways to build up.

There was little appreciation for this, unfortunately, when the standards were being written. The desire to have a consistent thread running up through the ELA standards, with elements in kindergarten that would continue through the grades, took precedence over the idea that learning to read the words is, by its nature, qualitatively different from learning to comprehend the words that have been recognized.

This is problematic; the nature of reading changes at every stage of a student's reading development, so grade to grade we cannot approach instruction the same way. We have significant research about this (for example, from Frank Vellutino at SUNY Albany and a group at the Florida Center for Reading Research) in which the researchers actually mapped out how the nature of reading changes over time, grade by grade.

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Collaborative Classroom: In light of what is known about the science of reading, what do you think about the reviews currently being conducted by groups such as EdReports?

Dr. Louisa Moats: I am skeptical about the quality of those reviews. EdReports is making a sincere effort to offer constructive reviews, but the people who volunteer to do reviews are not necessarily as knowledgeable as they should be.

A good review should emphasize the accuracy, organization, and methodology of language instruction, and it is very common that people with a general reading background may not be as well informed as would be optimal. For example, it is quite common in today's instructional programs that phonological skills and phoneme awareness are not well taught and that orthographic concepts are poorly explained.

Collaborative Classroom: Let's shift our conversation to pedagogy and programs. At the [January 2020 meeting of the Council of Chief State School Officers](#), the training that you and Dr. Carol Tolman developed, *Language Essentials for Teachers of Reading and Spelling* (*LETRS*®), was highlighted as a key tool to help teachers learn about the science of reading. Could you tell us a bit about *LETRS* and how it supports educators?

Dr. Louisa Moats: *LETRS* empowers teachers to understand the *what, why, and how* of scientifically based reading instruction.

We focus on teaching priority skills such as phonology, phonics, vocabulary, fluency, and comprehension that need to be taught during reading and spelling lessons to obtain the best results for all students.



The reason we focus on those priority skills is that effective reading instruction is complex, with several related key components that are informed by scientific research. The way we help teachers apply this knowledge is by demonstrating instructional routines, activities, and approaches that will allow them to address the needs of all their students.

After going through the *LETRS* training, educators generally have a better sense of what they should be looking for in a reading curriculum and are much more critical consumers. For example, in one state we had a strong group of teachers who learned a tremendous amount about early reading through *LETRS*. When the state pushed to adopt a particular program, these educators could immediately identify the program's significant deficits in early reading, based on what they had learned from *LETRS*. They were amazingly articulate about the program's deficits in serving early readers.

Collaborative Classroom: What would you recommend that school and district leaders consider when evaluating programs that support what is known about the science of reading?

Dr. Louisa Moats: Here are a few important things for leaders to consider when evaluating programs. First, ideally, there should be explicit instruction in foundational skills for approximately 45 minutes daily that follows a lesson routine: review, explain the concept, provide guided practice, provide more (independent practice); spell and write to dictation; read decodable text.

Then, determine if the instruction in phoneme awareness, phonics, and text reading is informed by knowledge of both the speech-sound system and the orthographic system.

Third, examine the scope and sequence for order and pacing of concept introduction. Intervention materials should be aligned with [Tier I] classroom instructional materials but provide more intensive practice. AVOID any program that includes drawing shapes around words, making alphabetic word walls, teaching the “cueing systems” approach of appealing to context to guess at unknown words, or that does not follow a clear scope and sequence where one skill is built upon another.



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Collaborative Classroom: Thank you for sharing your expertise with us by reviewing our [SIPPS](#) program. Could you share some of your specific feedback from your review of SIPPS?

Dr. Louisa Moats: My initial reaction was that the missions of our respective programs are very complementary. In short, SIPPS and LETRS are well aligned. (In my review I focused mostly on SIPPS Beginning Level.)

Something very unusual stood out for me in SIPPS instruction: the authors, the late [Dr. John Shefelbine](#) and his co-author [Dr. Kit \[Katherine\] Newman](#), really understood the content. I could not find anything in the program’s examples or the order of instruction that I would consider to be misinformed about language structure. That is so unusual.

It is terrific to see this alignment—what we are teaching in *LETRS* is so complementary with *SIPPS*.

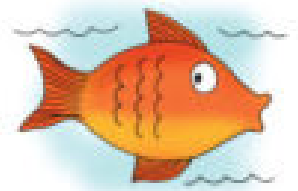
SIPPS has something that I'm always looking for in programs: The authors understand phonology and the distinguishing features of classes of phonemes, which is so important because certain speech sounds can be easily confused with other speech sounds, and the instruction needs to teach children how to distinguish these sounds without overloading them with too much information.



For example, the *SIPPS* instructor is cued to contrast /p/ and /b/, /k/ and /g/, and other consonants differing only in voicing. Vowels are treated as sounds with articulatory properties instead of as a limited set of letters. In lesson after lesson in *SIPPS*, I saw examples of the authors' understanding of the content as well as a deep appreciation for explicit instructional techniques.

Collaborative Classroom: What were areas of instruction you noticed in *SIPPS* that might seem subtle, but which are vitally important in your opinion?

Dr. Louisa Moats: There are a few key areas I want to highlight. First, the *SIPPS* sound-symbol cards, the reference point for learning the connections between phonemes and graphemes, are the way I like them. For example, /f/ is a sound; “fish” can be a key word; and the sound can be spelled with *f*, *ff*, or (later) *ph* or *gh*. This is how the *SIPPS* cards are organized: Here is the sound, and here are the ways that sound can be spelled. This might seem subtle, but it's extremely important.



Second, many other programs show children letters and say, “This letter makes this sound,” and that is simply not true. If you approach instruction that way, children are never going to fully grasp the connection between oral language and written language, and that to me is the origin of so much confusion in textbooks and materials. Many people brush these details aside because they themselves don't have a deep knowledge of phonemes, and this lack of understanding prevents educators from anticipating the type of corrective feedback students will need.

f
ph

Educators who have the necessary knowledge are able to anticipate where students will struggle and can give effective corrective feedback.

This is another strength of the *SIPPS* program; I see that kind of enlightenment throughout *SIPPS*. John [Shefelbine] and Kit Newman have a real understanding of what is confusing for students, and in the program they provide great clarity about what to directly teach to minimize confusion. You can tell that they truly understand the basics of language.

Third, the *SIPPS* scope and sequence is really well informed from a linguistic standpoint, and everything is as clear as can be. I just think it is wonderful.

[T]he SIPPS scope and sequence is really well informed from a linguistic standpoint, and everything is as clear as can be. I just think it is wonderful.

Collaborative Classroom: What is one piece of advice or guidance that you might offer to district or school leaders who are working to change how reading is being taught in their classrooms?

Dr. Louisa Moats: Invest in teacher education before investing in specific programs. In the case of an excellent program like *SIPPS*, at least support the implementation with professional development. Any program will be more powerful if knowledgeable, confident teachers are using it.

Did you enjoy this interview? For more about reading instruction, check out our blog series [Structured Literacy: Unpacking Eight Key Questions for Transforming Reading Instruction and Outcomes for Readers](#).

¹ For an introduction to Emily Hanford's reporting, see "At a Loss for Words: How a flawed idea is teaching millions of kids to be poor readers," American Public Media, 8/22/2019.

<https://www.apmreports.org/story/2019/08/22/whats-wrong-how-schools-teach-reading>



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