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Nomanis

Reading | Teaching | Learning | Connecting

Issue 20, Autumn 2026

An aerial photograph of a boat moving across a large body of water, leaving a white wake. The foreground shows a grassy hill with patches of yellow and pink flowers. The sky is a deep teal color.

**A TEACHER'S GUIDE TO
READING RESEARCH**



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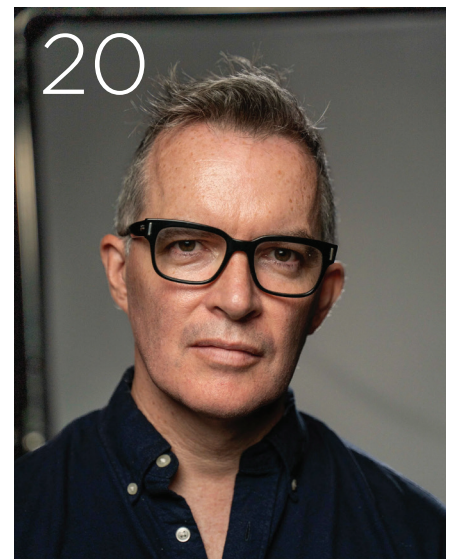
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Reading | Teaching | Learning | Connecting
ISSN 2207-0478 (Online)

Nomanis is published twice yearly
by MultiLit Pty Ltd
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Macquarie Park NSW 2113
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Just stop it!

**Kevin
Wheldall**

**Robyn
Wheldall**



“Their offers should not charm us,
Their evil gifts would harm us.”

(Goblin Market by Christina Rossetti)

Empty vessels make the most noise?

Some of us have been researching effective instruction for many decades; some of us have not.

Some of us have carried out dozens of true experiments in educational psychology and special education over many years; some of us have not.

Some of us know that many supposedly new, ‘innovative’ instructional practices were researched by behavioural psychologists many decades ago; some of us *clearly* do not.

Some of us know that new does not necessarily mean better; some of us do not.

Some of us believe in true evidence-based practice; some of us do not.

The effects of advanced phonemic awareness instruction in first grade

A recent article by Coyne et al. (2025) examined the effects of advanced phonemic awareness instruction on first-grade students’ literacy outcomes, specifically using the Heggerty Phonemic Awareness curriculum, with large student sample sizes.

“We randomly assigned 13 schools in a midsize district to treatment and control conditions. Treatment teachers (n= 26) implemented the Heggerty curriculum for 10–15 minutes per day during whole-class instruction for 35 weeks, and control teachers (n=20) continued with business-as-usual instruction.”

The program, which focuses on advanced phonemic awareness skills like deletion and substitution through sound-only activities without print, was implemented in seven treatment schools for 10–15 minutes daily over 35 weeks. Results showed significant improvements in phonemic awareness skills, with moderate to large effect sizes on the Phonemic Awareness Baseline Assessment. However, the curriculum did not lead to improvements in near-transfer measures of word reading, decoding or far-transfer measures of oral reading fluency. The researchers suggest that the lack of integration with letter–sound and phonics instruction may have limited the program’s effectiveness in supporting broader reading skills. Additionally, the study found no evidence that the curriculum was more beneficial for students with lower or higher initial literacy skills. Findings emphasise the importance of systematic foundational skills instruction that combines phonemic awareness with phonics and decoding.

This is an important finding given the ubiquity of phonemic awareness training in many recommended programs and texts, particularly those emanating from the United States and the Science of Reading movement. Mark Seidenberg has weighed in on this topic quite heavily. In a blog from November 2025, titled [Where did phonemic awareness training come from?](#), Seidenberg provides a very useful summary of the development of phonemic awareness activities and the emphasis on these in recommendations and sometimes even legislation in the US. He also points to different approaches adopted in the US and in England (and the UK).

What does Seidenberg say?

Mark Seidenberg comments on an earlier blog post:

“I know of zero evidence that older struggling readers benefit from ‘advanced’ phonemic awareness training. I know of no evidence that younger readers do, either. Performance on ‘advanced phonemic awareness’

tasks such as phoneme deletion and substitution is correlated with reading skill, but that is because it depends on reading skill, in particular, knowledge of relations between orthography and phonology. For older struggling readers I would say, you reach a point where you have to try something else. If an instructional approach has not been effective, merely doing more is not a good idea.”

More recently (2025), Seidenberg has specifically commented on popular books and programs:

“[P]honemic awareness instruction was promoted by educational authorities in the US who didn’t have the same influence in the UK. Each of the following resources is either recommended or required as part of the professional development stipulated in science of reading legislation in multiple states in the US.”

The first example Seidenberg gives is David Kilpatrick’s book, *Equipped for Reading Success* (EFRS). He quotes from EFRS:

“Remember: phonemes are oral and letters are written. Phoneme awareness has to do with sounds in spoken words. It has nothing directly to do with letters. It is an awareness of the sounds in spoken language,” p. 15.

“A good way to remember the difference between [phonics and phonemic awareness] is that you can do phoneme awareness with your eyes

closed but you cannot do phonics with your eyes closed,” p. 16.

Seidenberg also quotes from the manual for Heggerty, a popular multi-year phonemic awareness and phonics curriculum:

“Phonemic awareness: main focus is on phonemes or sounds; deals with spoken language; lessons are auditory; students work with manipulating sounds in words,” p. i.

Finally, Seidenberg quotes from Tolman and Moats, who are the authors of the LETRS teacher education program:

“Phonemic awareness activities [unlike phonics] do not involve print. They are listening and speaking activities; they can be done in the dark or with a blindfold on,” p. 93 3rd edition, unit 2.

Seidenberg continues:

“[T]reating phonemes as if they are units of spoken words with correct pronunciations is a mistake, and teaching phonemes without letters is the real ‘unnatural act’ in learning to read. I said there would be a second bit of evidence to consider about the best way to develop phonemic awareness; that would be the report of the National Reading Panel, which said: ‘Teaching PA with letters helps students acquire PA more effectively than teaching without letters. ... Teaching students to manipulate phonemes with letters yields larger effects than teaching students without letters,

not surprisingly because letters help children make the connection between PA and its application to reading,’” p. 2-41.

It seems that right back in 2000 with the report of the National Reading Panel we were on the right track.

Also useful in this debate is the latest Nomanis Note written by our colleague, Nicola Bell: Should phonemic awareness be taught without letters? In addition to referencing the work of Ehri (2014), Bell refers to two recent meta-analyses (2024) from Erbeli et al. and Stalega et al. and concludes that at this point there is no evidence-based rationale for withholding letter stimuli from students as they perform phonemic awareness tasks. This applies to typically developing readers and those with observed difficulties.

It would appear that we have clear direction from the research in this area. What is required is for us to take notice of it. We would recommend both of the recent Seidenberg and Bell contributions to readers.

Conclusion

We were among the first to query the efficacy of Kilpatrick’s PA program, many years ago now, and asked for supporting empirical evidence when it was first introduced. None was forthcoming then and nothing has changed since. Teaching phonemic awareness in isolation is simply ineffective as a form of reading instruction. So, why do schools continue to use programs like EFRS and Heggarty? They have been sold a pup and, as a consequence, valuable teaching time for reading instruction has been wasted for so many children for too many years. It is time to call a halt.

The answer is simple: Just stop it!

*Emeritus Professor Kevin Wheldall AM
and Dr Robyn Wheldall
Joint Editors*



What we've been reading



Nicola Bell

Lately, I've been judging lots of books by their covers. It's straightforward enough to pick out the red, chunky-fonted 'cosy crime' ones that I know will fit in my comfort zone. If there's a lamp post or a top hat featured, even better. If there's a bullet or some blood spatter, I've drifted too far into the 'non-cosy crime' section.

Of all the books in this genre that I've read recently, my favourite was *Magpie Murders* by Anthony Horowitz. This one came out a while ago, which means I have a couple of sequels to catch up on now. *Magpie Murders* tells the story of a crime writer who dies mysteriously. The character's final, incomplete manuscript plays a key role in figuring out the identity of his own killer, and I really liked the weaving together of the two storylines. It got just a little too convoluted at the end, but it was still an enjoyable read.

A couple of others that I really enjoyed were *We Solve Murders* by Richard Osman and *The Seven Deaths of Evelyn Hardcastle* by Stuart Turton, although the latter was not especially cosy. I'm really annoyed that I wasted time and money on *The Perfect Marriage* by Jeneva Rose. Awful.



Mark Carter

A recent 'ear-read' (audiobook) was Jacinda Ardern's *A Different Kind of Power*. Ardern always impressed me as something of an outlier in the world of politics. Perhaps she was just the product of political branding, the type that will be all too familiar to Australians. I also wondered whether a politician like Ardern could only exist in Aotearoa New Zealand because the country possessed a more civilised political system and less rabid press, both profoundly naive notions that were quickly

dispelled. Ardern provided narration for the audiobook, and when recounting events such as the Christchurch massacre, the patent emotion in her voice added extraordinary dimension. Ardern also writes very well. Even the details of her early formative years, minutiae that would normally drive me to distraction, were rendered in a way that maintained my interest. As the creeping grumpiness of old age descends upon me, I have reached the conclusion that, given our collective shallow thinking and reflexive political tribalism, we ultimately get the politicians we deserve or, at the very least, politicians who behave the way we deserve. This leaves me with one question. What exactly did New Zealanders do to deserve Ardern?

For something quite different, *Why We Sleep* by Matthew Walker provides an encyclopaedic overview of the functions of sleep, the benefits of slumber and the profound damage caused by insufficient and disrupted sleep cycles. Some of the numerous health benefits of sleep reported include consolidating learning, removing accumulated toxins from the brain and stripping away traumatic emotions from memories. The corresponding morbidity associated with inadequate sleep was more than a bit frightening. I must admit, I did wonder whether Walker was overstating the case at some points or perhaps this was just wishful thinking on my part.



Maddy Goto

A couple of easy reads I've enjoyed recently where the narrative has pulled me in at the beginning and spat me out at the other end, having barely come up for breath, are *Outback* by Patricia Wolf and *The Promise of Rain* by Vasundra Tailor.

Slightly slower reads, not because they were less enjoyable, but because they necessitated a bit more pause and contemplation were *In the Margins* by Gail Holmes and another offering from Percival Everett, *Dr. No*.

Holmes was inspired by Frances Wolfreston, a real person and the tenacious wife of a rector, who was credited with collecting and preserving the earliest part of

Shakespeare's legacy. *In the Margins* offers a little window into life in England in 1647. This was a time when women lived 'in the margins', when religious non-compliance was met with severe punishment and when education was seen as pointless for the poor. The unassuming, yet bold, heroine of this book protects and offers solidarity to the downtrodden women and children in her community, through words and literature. A fascinating and, at times, quite disturbing glimpse into this period of history.

Dr. No was quite the contrast, where despite dealing with some serious and important themes, comedy and absurdity abound in true Everett fashion. This novel is about nothing, quite literally. The narrator, a professor of mathematics, is named Wala Kitu, a Tagalog-Swahili name which, when translated, means Nothing Nothing. He has spent his entire career devoted to nothing, to absence, accompanied by his one-legged dog, Trigo. Once you've got your head around nothing, prepare for some real James Bond-esque villainy complete with billionaires, shark-infested pools and submarines, all in the quest to find a chest containing nothing. While *Dr. No* may be about nothing, I thought it was quite something.



Alison Madelaine

I've read so many excellent books lately, it's difficult to know where to start. Some of my 5-star reads have included *The Funny Thing About Norman Foreman* by Julietta Henderson, *Mad Mabel* by Sally Hepworth, *An Ill Wind* by Margaret Hickey, *The Names* by Florence Knapp and *Lyrebird* by Jane Caro.

Another interesting book I read was *The House in the Cerulean Sea* by T J Klune. It is the story of a government employee who goes to inspect an orphanage containing 6 children and some carers. The children are actually magical beings: a garden gnome, a shapeshifter, an amorphous blob, a sprite, a wyvern and the son of Satan. More broadly, the book is about acceptance of those who are different, fighting prejudice and finding family in an unexpected place. A short while later, I read the sequel, *Somewhere Beyond the Sea*. This was equally as good and is about the fight to keep this unusual family together, with the addition of one more young magical being.

Finally, I read one of the most disturbing books I've ever read, and it is very much still in my head. It has been quite some years since I have read any horror, so I thought I would give one a go. The book was *Bloom* by Delilah S. Dawson. This novella starts all cute and cozy, with a farmer's market stall where decadent cupcakes, handmade soap and plants in pretty pots are sold. The market stall vendor starts a relationship with one of her customers. In this relationship, you could definitely say that some red flags are ignored. And then the book takes a turn that firmly plants it in the horror genre (actually a specific sub-genre of horror, which I will keep to myself in case it is a spoiler). Read it if you dare.

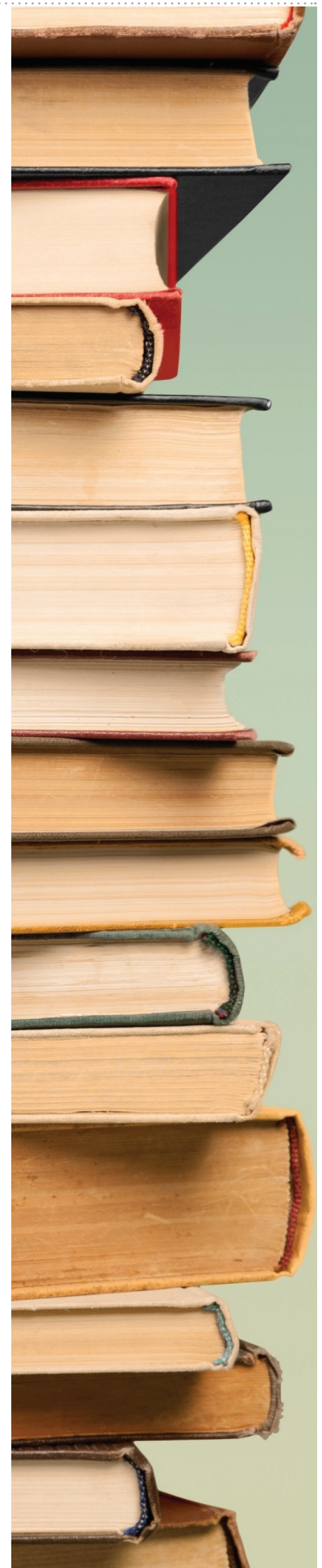


Ying Sng

My relationship with social media is complicated, but sometimes Bookstagram/Booktok delivers stellar recommendations. Here are a few enjoyable titles that I owe entirely to the influencers who inhabit this bookish corner of the internet. The protagonist in *The Correspondent* by Virginia Evans is a prolific letter writer – ideal for an epistolary novel. Sybil Van Antwerp is in her seventies, she lives alone and she is delightfully prickly. Letter by letter, we uncover her story as she confronts painful memories,

the results of a DNA test and juggles the attention of two persistent suitors.

In *The Names*, Florence Knapp asks whether a child's name affects their future. Cora must register her second child's birth. Does she name him Bear (her daughter's choice), Julian (her choice) or Gordon (her husband's choice)? Knapp imagines three different futures for a child born into a family affected by domestic abuse. Ultimately, it isn't the name that determines the baby's fate, it is whether Cora decides to provoke her domineering husband by going against his wishes or submit to the life he has designed for them.



What we've been reading



The River Is Waiting by Wally Lamb was an emotional read. Corby Ledbetter loses his job, turns to medication and alcohol and then something unspeakably tragic happens. Most of the novel is set in prison where he grapples with guilt, faces violence and unexpectedly encounters kindness. In the end, Corby is a man trying his best, though sometimes his best falls short.

It is astonishing that both Virginia Evans and Florence Knapp are debut novelists. I look forward to adding their future projects to my TBR pile where two of Wally Lamb's back catalogue currently reside. All three books were #unputdownable.



Kevin Wheldall

It has been some time since I last wrote about what I've been reading. (My last contribution in the September issue was held over from the previous issue for space reasons.) So, there is a long list to choose from ...

Starting with the book I finished most recently during a bout of insomnia, I enjoyed Jane Harper's *Last One Out*.

But sadly, I was not impressed by Elizabeth George's latest, *A Slowly Dying Cause*. This Lynley series has done its dash and at 650 pages was a chore with some sloppy writing. Two stars only.

On the brighter side, I greatly enjoyed two novellas by Irish writer Claire Keegan, both of which were subsequently made into movies: *Foster* and *Small Things Like These*, both focusing on the darker side of Irish life in the not-so-remote past. Nasty nuns alert.



Robyn Wheldall

Thank goodness for summer holidays! Were it not for a much-welcomed slab of time off over Christmas and the New Year I would not have had anything much to relay here. I really got back into reading for pleasure, although it has to be said that not all of it could be called pleasurable. A couple of titles from over summer were reminders of the important role that reading plays in taking us out of ourselves and into other worlds and other people's experience. I had been reading *Ferryman: The Life and Deathwork of Ephraim Finch* by Katia Ariel when the dreadful events of the Bondi Beach terror attack took place in December. The memoir covers the decades-long community work of a man who converted to Judaism and guided thousands of Jewish people through the end of their lives, preserving the cultural practices around death in the Jewish faith. This memoir was published in May 2025 and references to, and concerns about, rising antisemitism in Australia were included in the book. It was both confronting and shocking, therefore, that those concerns were actualised in the horrific events on the first day of Hanukkah festival.

Memoir is a powerful form for me and another I read over my summer of reading was *What Remains: A Memoir of Fate, Friendship and Love* by Carole Radziwill (2005) which deals with the relationship between the author and her husband, Anthony Radziwill, and his cousin, John Kennedy Jnr and Carolyn Bessette Kennedy, Carole's closest friend. As you may know, the ill-fated Kennedy couple died in a light plane crash off the New England coast. But what was less known (to me) was that this occurred at a time when Anthony was dying from a largely private five-year battle with cancer and these closest of friends were confronting Anthony's impending death at only 40 years old. The unexpected tragedy of the loss of dearest friends at a time of heightened struggle and need was moving and heart-wrenching. The brutal honesty of the emotional turmoil that swirled around this tragic time was powerful.



What do you think of ‘phonics first’ or ‘phonics only’ in the primary grades?

Tim
Shanahan



Teacher question:

At my school, the district inservice has made a big deal out of Scarborough’s Rope. Nevertheless, when it comes to daily instruction, we (the primary grade teachers) have been told that decoding is the most important thing and that we are to emphasise that. They’ve sent us to LETRS training, purchased instructional programs on phonics, and require testing students’ ‘nonsense word fluency’ frequently. At what grade levels is it appropriate to teach the ‘language comprehension’ portions of the Rope?

Shanahan responds:

In 1915, near where I’m writing this, a passenger ship, the *SS Eastland* sank, drowning 844 passengers – many of them children. It was the greatest disaster in Chicago history and the greatest loss of life of any single shipwreck on the Great Lakes ... But I’ll get back to that in a moment.

I agree with your district that young readers – if they are going to be young readers – need to learn to decode, and phonics and phonemic awareness instruction are essential during the primary grades to ensure that students develop proficient decoding ability.

But it seems to me that in your school district’s prodigious and well-meaning efforts to ensure that happens, they are ignoring Scarborough’s Rope, Gough & Tunmer’s Simple View, Duke & Cartwright’s Active View model, the Report of the National Reading Panel, \$100 million worth of research from the National Institute of Child Health and Human Development, and a slew of other more recent research studies.

They’ve left the ‘bop out of the bop-sh-bop-sh-bop’. Or, more accurately, they’ve left the science out of the ‘Science of Reading’.

Most people would chalk this overreach up to ‘reading wars’. That could be what’s happening; maybe there’s a ‘true believer’ in your district who thinks that only decoding matters – and is willing to make that happen no matter the costs.

However, I’ve been hearing about this ‘decoding first’ or ‘decoding only’ action often lately – from parents, state department of education officials and teachers. Reading instruction over my career has tended to follow a pendulum. As interest swings one way or the other, instructional practice gets twisted out of shape.

I remember back in the 1970s and 80s. The federal government invested heavily in research on reading comprehension. That produced a lot of terrific studies, and for a while it dominated the reading journals – both the research journals and those aimed at practitioners.



In 1980, it was nearly impossible to find a contemporary high-quality article on phonics teaching. The comprehension researchers weren't anti-phonics, they just sucked all the oxygen out of the room. A beginning teacher at that time would have thought the only thing she was supposed to teach was comprehension strategies.

Not surprisingly, publishing companies followed that lead. It wasn't that they wouldn't publish information on how to read words or how to teach students to do so. They were just following the market, publishing the shiny new stuff that everyone was interested in right then – rather than trying to make sure that all the important aspects of teaching reading were addressed sufficiently.

That's what's going on now. The press and media are emphasizing decoding because of serious gaps in the practices of many schools, so parents are asking questions about it and curriculum directors are making darn sure that they have a good story to tell. Since no one appears particularly concerned about prosody or vocabulary or whether kids are reading enough science text, all hands on deck is about addressing the decoding gap.

We certainly have work to do to make sure that phonics is taught, that teachers have supportive, high-quality instructional materials aimed at that, and investing in professional development on decoding is wise, too.

But that's the easy part.

The trick to doing that successfully, however, is to do it without tipping the boat over.

Ah, the *SS Eastland*, let's get back to that. The ship that day was loaded with families going out for an excursion on the lake, a Sunday entertainment. Unfortunately, once boarded, the ship listed heavily to starboard (it was leaning uncomfortably to the right). The passengers responded as might be expected ... They moved quickly to the other side of the boat – which tipped it over.

It sounds like your district is trying to address a real problem. But under pressure and anxiety, they are shifting all the ballast to one side of the boat. Ignoring or delaying language comprehension instruction is not the smart way to correct the decoding problem. In fact, it might eventually sink the boat.

Is there really any reason to believe that teaching phonics first or that only

teaching phonics for a year or two is a good idea? If you have phonics stuff to sell, it probably seems like it is. But if you have any interest in the *science* of reading (that is, you want to base your actions on data rather than sales talks and unintentional media hyperbole), then it's clear those scorched earth approaches are bad pedagogy.

If you don't think that I'm right about this, look at this evidence:

- 1 Jeanne Chall, the Harvard professor most known for her analysis of the research on phonics instruction ([*Learning to Read: The Great Debate, 1967*](#)), promoted the role of phonics more vocally and more articulately than any scientist of her generation. Nevertheless, the phonics instruction that she promoted through her own work never delivered phonics in a vacuum. Her research revealed that students, to become readers, needed to progress in multiple skills areas simultaneously.
- 2 In 1990, Marilyn Jager Adams published the landmark *Beginning to Read*, her magnificent summary of

It would be cruel to put all the emphasis on one part of the process, while allowing kids to languish with the other parts (sort of like providing calcium by taking away the protein).

the research on the early acquisition of reading ability. Not surprisingly, this work – like Chall’s – has been a major pillar of movements to teach phonics explicitly and thoroughly from the beginning. However, this incisive review of research explicitly rejects the idea of either ‘phonics first’ or ‘meaning first’ approaches. It describes such approaches as ‘misguided’ and ‘simplistic’ and documents the lack of empirical evidence supporting either of those approaches.

- 3 Hollis Scarborough’s Rope, which you mention, treats word recognition and language comprehension equivalently. However, you could read that visual metaphor for reading development two different ways. You could read it left-to-right, which would suggest that both sets of skills develop simultaneously and interactively from the beginning. Or you also might read it from top to bottom, suggesting that language comprehension comes later in the process, built upon a foundation of phonemic awareness, phonics and sight vocabulary. Recently, Hollis clarified the intended meaning in a Q&A available on YouTube. She said that the publisher of the original graphic left out one important item. There was to be an arrow at the bottom labelled time, and it was to point left-to-right. Her understanding of the research is in accord with those of Chall and Adams – decoding needs to be taught early in the developmental process, along with those comprehension abilities.
- 4 The [National Reading Panel report \(2000\)](#) is oft cited as the major support for phonics instruction. We (I was a member of the panel) found that explicit, systematic phonics instruction helped students to become better readers – based on a meta-analysis of 38 studies. But most of those studies provided the phonics instruction embedded in or accompanied by a more comprehensive reading program (the same was true of all the other components of reading that the National Reading Panel examined). If you have any doubts, Linnea Ehri, the scientist who led the alphabetics part of the effort, has focused her research not only on how kids learn to recognise words (ever hear of ‘orthographic mapping?’), but also on more comprehensive approaches to decoding like Reading Rescue.
- 5 The National Institute of Child Health and Human Development found that once instruction had successfully raised kids to average levels of decoding ability – levels that should have resulted in successful reading – more than half the students still struggled. Decoding was essential, but insufficient for success. That’s why Reid Lyon, Jack Fletcher, Barbara Foorman, Joe Torgesen, and so many others endorsed more comprehensive approaches to meeting children’s reading needs ([Fletcher & Lyon, 1998](#)). They were quite explicit that the teaching of these components takes places simultaneously, not consecutively or sequentially. It would be cruel to put all the emphasis on one part of the process, while allowing kids to languish with the other parts (sort of like providing calcium by taking away the protein).
- 6 Perhaps you think that what I’m saying may be true for some kids, but not for kids with dyslexia. You’d be wrong there too if you examined the rigorous and well-grounded research of folks like Sharon Vaughn or Maureen Lovett. They must not have gotten the memo that kids only need decoding supports early on; look at the interventions they’ve developed for students with dyslexia.
- 7 Not long ago, on a listserv where I lurk, someone argued that it was okay to teach phonics to kids who already could decode satisfactorily (“it couldn’t hurt”). Research shows that engaging those kids in comprehension and language activities instead of teaching them again what they already know, generates greater learning progress ([Connor et al., 2004](#)).

TIM Talks: Advice for the discerning educator



This article originally appeared on the author's blog, [Shanahan on Literacy](#).

Timothy Shanahan [[@ReadingShanahan on X](#)] is Distinguished Professor Emeritus at the University of Illinois at Chicago and was formerly Director of Reading for the Chicago Public Schools, and President of the International Literacy Association. He is a former first grade teacher and is a parent and grandparent. His website [www.shanahanonliteracy.com](#) is popular with parents and teachers.

Nothing wrong with supporting phonics instruction but being so cavalier about the education of other people's children is insensitive and offensive. (Yes, unfortunately, I've witnessed that same kind of insensitivity and gracelessness from those excusing their own disregard for the decoding needs of kids.)

- 8 The value or possibility of teaching foundational skills and language skills simultaneously is not just for reading either. Karen Harris and Steve Graham shared some of their recent work with me that shows that first-graders do quite well with a more comprehensive approach from the beginning ([Harris et al., 2023](#)).

I could go on and on, but I think you get the idea. The scientists who know the most about this are big proponents of teaching phonics, but they don't buy in to the idea that its phonics first or phonics only. Those ideas come from folks who are trying to push a pendulum, make a sale, or – perhaps, like your district – want to respond to community pressure without taking the trouble to examine the Science of Reading.

How to proceed? The way I handle it is by apportioning time to parts of the literacy curriculum. I follow the research and advocate teaching phonics for about

30 minutes a day (just like in most of the studies summarised by the National Reading Panel). Comparable amounts of time should be devoted to the other important components – that of reading comprehension, writing and the ability to read text fluently. Doing it that way, kids get what research says is an effective dose of phonics instruction, and they don't miss out on all the other things that they need if they are to become good readers.

In Chicago, when I was the director of reading, we began every workshop with an overview of all the skills needed to read. It was explained repeatedly that today's PD was on _____ but not because that was the most important or the only component of reading. It was important, it mattered, and it was the topic of the day, but it had to fit together with the other pieces (that also were essential and that mattered every bit as much). Worked for our kids.

Please share this article with your administrators. Perhaps we can persuade them to do less tail covering and more to meet the literacy learning needs of our diverse children.

Let's not sink the boat in our zeal to make it look like we are doing a great job with phonics.

The scientists who know the most about this are big proponents of teaching phonics, but they don't buy in to the idea that its phonics first or phonics only.



Stopping the pendulum: Making education a research-based profession

**Doug
Carnine**



What real professions get right – and education doesn't.

Discredited ideas don't return to most professions.

In the distant past, surgeons did not wash their hands before performing surgery. Once sterile technique was settled science, it was incorporated into practice with no turning back. Surgeons have continued washing their hands ever since. Similarly, at one time, doctors treated ulcers by advising patients to reduce their stress. Once it was discovered that antibiotics cured ulcers, doctors never went back to suggesting stress was the cause.

Professions grounded in evidence don't revert to disproven practices. Education does. It lurches on a pendulum, swinging back and forth between approaches already tested and found wanting.

Nowhere is this clearer than in reading instruction. Phonics has been adopted, abandoned, rediscovered and abandoned again. In the 1980s, whole language shoved it aside. In the 1990s, phonics made a comeback, only to be marginalised again until *Sold a Story* and the 'Mississippi Miracle' brought it back to centre stage. As journalist Emily Hanford has said, "I don't like the analogy of the pendulum; it swings back and forth, with no sense of progress ... if the pendulum is phonics – I hope that never happens again."

This endless cycling is not progress. It is a symptom of a deeper, disquieting flaw: education has never become a research-based profession.

The cost of standing still

The evidence is plain. At a [2025 Congressional hearing](#), Chair Kevin Kiley noted that reading and maths scores in the United States have essentially "flatlined" since 1971. Today, only 31% of fourth graders and 30% of eighth graders read at a proficient level. Said differently, nearly 7 in 10 are not proficient. These numbers are not mere statistics. They represent millions of children starting life with an academic handicap that often compounds into a lifetime of diminished opportunity.

Macke Raymond of Stanford's Center for Research on Education Outcomes captured the futility of four decades of reform when she titled a [recent retrospective essay](#) 'Times have changed. The school system? Not so much'. That frank assessment should force us to ask: why has wave after wave of reform produced so little durable change?

The answer is that education lacks the institutional safeguards other professions take for granted.

Five pillars of a research-based profession

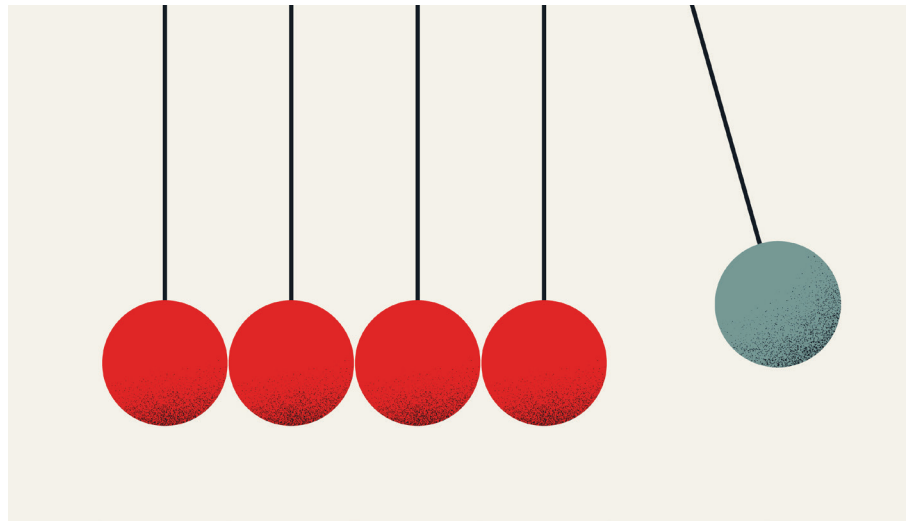
Professions that truly put evidence at their core – medicine, aviation, engineering, seamanship – are built on five common pillars. Education needs all five.

- 1 A shared knowledge base.** Effective practices exist in early reading and maths, but unlike medicine's consensus on germ theory, education does not consistently adopt or adhere to them. This leaves classrooms open to fad and opinion.
- 2 Research-aligned preparation.** Aspiring doctors learn evidence-based medicine during their residencies. By contrast, a recent review found only 28% of teacher-prep programs fully equip future teachers with the essentials of reading. Even worse, 91% earned 'C' or below for clinical practice. If the majority of medical residencies were so poor, we would call it malpractice.
- 3 Licensure rooted in competence.** Half of US states allow teachers to enter classrooms without passing a research-based exam in reading instruction. Imagine licensing surgeons who had never demonstrated skill in sterile practice.
- 4 Accreditation with teeth.** Today, 72% of teacher-prep programs that fail to prepare candidates effectively still receive accreditation. No other serious profession tolerates such laxity.
- 5 Accountability for quality of practice.** Teachers can lose their licences for misconduct but rarely for persistently poor instruction. In malpractice suits, the school – not the teacher – is held accountable. Compare that to medicine, where professional liability drives fidelity to evidence.

Until these pillars are in place, education will continue to swing with the pendulum.

Professions rarely reform themselves voluntarily. They change after a crisis of trust forces the issue. The *Titanic's* sinking spurred international standards for maritime safety. The Great Depression gave rise to the SEC. Medicine itself only embraced evidence systematically after public frustration with poor and inconsistent outcomes.

We are in education's own crisis of [trust](#). The flatlined scores, the persistent inequities, the exasperation of parents – all signal a system that no longer commands confidence.



The question is whether we will respond with seriousness equal to the challenge.

Building guardrails for education

Other professions confronted with crisis responded by installing guardrails – the five pillars both limited professional discretion and empowered practitioners who wanted to do right by their clients. After the *Titanic*, sea captains lost some freedom of movement but gained a coherent system of safety standards that saved lives. Education needs to make the shift to become a research-based profession, the same shift that all genuine professions have had to make.

The shift for education requires:

- a **shared knowledge base** to ensure the profession has one canonical source of truth
- **implementation tools** that translate the shared knowledge base into daily practice
- a **consortium of states and districts** willing to adopt the five pillars, ensuring scale and coherence rather than isolated pockets of reform.

But this shift will succeed only through the combined pressure of insiders and outsiders.

The Evidence Advocacy Center has crafted a [plan](#) to bring about this shift. It describes not only the five pillars but also the role of two entities: an alliance and a collaborative, which are described below.

Inside the profession, an [alliance](#) of evidence-aligned organisations must codify, monitor and advocate for

research-based practice in the five pillars: preparation, licensure, accreditation, professional learning and job descriptions. This is the work of research-aligned teachers' colleges, subject-matter associations and professional groups.

But history shows insiders alone are not enough. External pressure has always been essential to reform. This requires a [collaborative](#) of parents, families, business leaders, social justice advocates, elected officials and community colleges. They provide the urgency, the public voice and the political leverage to demand lasting change.

The alliance ensures fidelity to evidence. The collaborative ensures the profession cannot drift back to fad and fashion. Together, they are the necessary architecture of a research-based education profession.

This article originally appeared on Robert Pondiscio's blog, [The Next 30 Years: The Future of Education Reform](#).

Dr Doug Carmine, Professor Emeritus at the University of Oregon and President of the Choose Kindness Foundation, spent 20 years of his career focused on improving the achievement of K–12 students who too often fail in school: children of poverty, limited English speakers and students with disabilities.

How much explicit phonics instruction is necessary?

**Nicola
Bell**



What exactly does it take to reach ‘escape velocity’?

In recent years, there has been considerable attention given to the importance of explicitly teaching foundational literacy knowledge. This is for good reason. Alternative approaches have been based on the flawed assumption that beginning readers acquire literacy skills most efficiently through print exposure, with minimal code-based information directly communicated. Approaches like these have resulted in too many instructional casualties. Gaps in knowledge about the intricacies of foundational English sound-spelling patterns, which are best communicated through explicit teaching, leave students ill-equipped to tackle texts independently.

It is also true that there is an upper limit to the usefulness of explicitly teaching sound-spelling patterns. As grapheme–phoneme correspondences (GPCs) become less frequent in text, knowing the specific contexts that constrain their application becomes less helpful and learning them becomes more burdensome. Recently, concerns about ‘over-teaching’ foundational knowledge have been raised by [Seidenberg \(2024\)](#). According to Seidenberg, basic reading instruction that is delivered with the intention of arming students with the capacity to decode print is detrimental beyond a certain point because it leaves little time for actual reading. As such, we should employ explicit teaching wisely, withdrawing it and providing more opportunities for print exposure once students reach the point of being able to figure words out on their own.

The simplicity principle

In a seminal paper by [Vousden et al. \(2011\)](#), several analyses were conducted to determine which representational units are most useful to teach. To illustrate, the word ‘beach’ may be represented as:

- a whole-word unit (beach)
- a head–coda pairing (bea-ch)
- an onset–rime pairing (b-each)
- multiple grapheme–phoneme pairings (b-ea-ch).

According to the results, when students’ reading vocabulary requirements extended beyond 50 words, teaching grapheme–phoneme units appeared the most favourable course of action. Specifically, 237 of these units were needed to accurately pronounce 3066 words that were derived from children’s text (vs 1141 onset–rime units and 1285 head–coda units).

At a broad level, the above results provide support for the explicit teaching of GPCs. However, as subsequent analyses conducted by Vousden et al. (2011) showed, this instruction need not cover all 237 mappings. In fact, they found that 118 mappings were enough to accurately pronounce 73% of corpus data. Even this number may be more than necessary. When interpreting their results, the authors state that “knowledge of a considerably reduced number of GPCs may be sufficient to bootstrap reading acquisition, at least for some children” (p. 64).

We should employ explicit teaching wisely, withdrawing it and providing more opportunities for print exposure once students reach the point of being able to figure words out on their own.

How much explicit phonics instruction is necessary?

[Solity \(2020, 2022\)](#) is a strong advocate for teaching only a limited number of GPCs. According to early research by [Solity and Vousden \(2009\)](#), knowledge of 61 GPCs (alongside a list of 100 high-frequency words and three suffix and doubling ‘rules’) was sufficient to read 90% of words appearing in common children’s books. This analysis was based on a corpus of 66 books, as opposed to the 685 books analysed by Vousden et al. (2011). Nevertheless, there is some evidence from behavioural research that early readers benefit from phonics instruction that is limited to approximately this scope ([Chen & Savage, 2014](#); [Shapiro & Solity, 2008](#)).

As concluded by Vousden et al. (2011), “it is an open question as to how much explicit instruction is required before self-teaching can occur, or when semantic input can fill the gaps” (p. 64). Even so, the results above provide a useful starting point for determining where to draw the line. The Simplicity Principle is helpful because it justifies the approach of devoting explicit instructional time to only the most frequent and consistent GPCs.

Spelling

It is interesting to consider that arguments against extended GPC instruction tend to pertain to a reading context. In fact, it is likely that one of the key reasons to continue explicitly teaching GPCs beyond the point at which it might otherwise be discontinued is to facilitate students’ *spelling* development. Transitioning too early to a method of instruction whereby students implicitly learn the GPCs in words via exposure to text may be disadvantageous in this regard. While some knowledge of word spellings is acquired via implicit learning, explicit instruction could help to speed up this process ([Treiman, 2018](#)).

According to this perspective, GPC instruction should extend beyond the early school years and involve explicit directions about rules that constrain the variability of GPC use. It may also be combined with morphological (and related vocabulary) instruction.

Struggling readers

Another reason to be cautious about withdrawing explicit teaching too quickly is that there are individual differences with respect to how successfully students learn through print exposure. That some

students struggle with storing and/or accessing orthographic representations is well-established ([Ehri & Saltmarsh, 1995](#); [Wang et al., 2015](#)). More generally, at least a subset of struggling readers also appear to benefit less than typical readers from statistical learning opportunities ([Arciuli, 2018](#); [Sawi & Rueckl, 2019](#)).

There is clear research evidence to justify the provision of more intense and individualised GPC instruction for struggling readers ([Galuschka et al., 2014](#); [McArthur et al., 2018](#)). However, it is an open question as to whether the scope of this instruction needs to be different. [Seidenberg \(2024\)](#) describes explicit instruction as a means of achieving ‘escape velocity’. In other words, and as described above, it is the most efficient way of getting students to a point at which they have mastered so much code knowledge that they can read independently and learn implicitly. It is possible that many struggling readers have a higher threshold for escape velocity, meaning that extended GPC instruction (relative to their average same-aged peers) is especially helpful because it makes explicit what is difficult for them to learn implicitly. On the other hand, this is not possible to attempt in a whole-class setting. It is not even especially practical to attempt in a small group or individualised setting, where the content should mirror Tier 1 instruction and where instructional time is still constrained.

From the ‘struggling reader’ perspective, and in the absence of empirical data, the question of how much explicit phonics instruction to deliver becomes one of value, rather than research. To be equitable, enough GPCs should be taught explicitly to the whole class that those less able to extract information from print exposure are not disadvantaged.

Summary

It is reasonable to suspect that, under the right conditions, students can learn a good amount of foundational code knowledge in the first two years of formal schooling. That said, even if they have reached a point at which they can read connected text with minimal input and feedback from a teacher, it does not follow that students have nothing further to learn from explicit teaching of sub-lexical patterns. In particular, spending

additional instructional time on explicit teaching of GPCs may be beneficial for improving students’ *spelling*. This point has not received as much consideration as reading, with respect to the evolving roles of explicit teaching and implicit learning. Similarly, it is not clear from research how best to meet the needs of those less likely to learn implicitly from print exposure, or how this factor translates into the provision of whole-class instruction.

With respect to the implications for instructional design, there is justification for continuing explicit whole-class sound-spelling mapping instruction beyond the first two years of schooling. Predominantly, this should aim to build students’ encoding (vs decoding) skills, with directed focus given to the morphemes in polysyllabic words and more complex GPCs that require consideration of context. Such instruction should be delivered alongside opportunities to engage with a lot of connected text. From a teacher-led instructional perspective, this should take the form of fluency or comprehension instruction. From a broader perspective, students should be provided with access to (and support in selecting) materials for independent reading outside of the classroom.

Dr Nicola Bell is a Research Fellow in the MultiLit Research Unit.

A classroom teachers' guide to reading research

Margaret Goldberg



Learning how to navigate reading research helps to make it less intimidating.

Minding the research to practice gap

Following the reading research is more challenging than it sounds. There are thousands of studies and it's hard to know where to start. For classroom teachers, making sense of studies is extra challenging because a lot (but not all!) of the research has been done in contexts that we can't replicate – intensive doses of reading intervention, delivered one-on-one, in environments with fewer competing priorities.

So how do we make sense of a study to decide whether it's worth our effort? The first step is understanding the language researchers use to describe their work.

Making sense of research terms

The language and structure of research papers tend to be pretty consistent. Knowing some basic terms actually goes a long way (see Table 1).

Understanding the terms scientists use can help us make sense of important distinctions in research. I once asked Reid Lyon (an early champion for the Science of Reading and the former Chief of the Child Development and Behavior Branch at NICHD) to explain the difference between two terms I had thought were synonymous, *efficacy* and *effectiveness*. He explained:

“An efficacy study is typically run in a highly controlled environment in order to determine if an intervention has merit. But schools are complex systems ... to determine if an intervention will work in classrooms, you need effectiveness trials, and effect sizes are typically smaller in trials. We found efficacy was sometimes reduced to 40% due to normal school challenges, like maintaining program fidelity and achieving sufficient dosage.”

I took a minute to think aloud about what he'd explained:

“So when teachers read studies and we feel like they are promising us results, that's not actually a reasonable expectation because the studies aren't often set in conditions like our own ...”

He added:

“You have to make an educated guess – based on knowledge of your school, your youngsters and the resources you have – is this instructional method worth trying?”

Table 1. Research terminology

 Research Terminology for the Classroom Teacher		
Term	What It Is	Why It Matters
Sample Size	<p>The number of students included in a study</p> <p>A larger sample (100+ students) generally gives us more confidence than a smaller one (8-10 students).</p>	<p>Classrooms typically have students with varying levels of language proficiency, decoding abilities, behavioral tendencies, etc.</p> <p>To know if a method is likely to work with our students, we need to know if similar students were included in the study.</p>
Control Group	<p>A group of students who didn't receive the new intervention</p> <p>Having a control group allows researchers to compare results. The control group might receive regular classroom instruction ("business as usual") or a different intervention.</p>	<p>A control group can help us determine if an intervention was more effective than another approach.</p> <p>When deciding whether to invest time and resources in a new approach, we want to know, "Would it be better than what we're already doing? Or is it just better than doing <i>nothing</i>?"</p>
Baseline Levels	<p>The performance of the students in the study before they had the intervention</p> <p>This includes information about their initial skills, challenges, and relevant characteristics.</p>	<p>Understanding baseline levels helps us know if the students in the study were similar to ours.</p> <p>If a program worked well for students who started at a different baseline than our class, we might not see the same results.</p>
Intensity of Intervention	<p>How much instruction students received (minutes per day, days per week) and in what setting (one-on-one, small group, whole class)</p>	<p>If we can't replicate the intensity of the intervention in our classroom, then we can't expect the same results as the study.</p> <p>It might not be worth spending 20 min twice a week to deliver an intervention that was intended to be given for 30 min, five times a week</p>
Effect Size	<p>A measure of how much impact the intervention had, usually expressed as a number like 0.2 (small effect) to 0.8+ (large effect).</p>	<p>We need to balance an effect size with its cost.</p> <p>For example, having students plan what they'll write before they draft has a smallish effect size of .32, but it doesn't require much effort and it may offer additional benefits, like giving us an opportunity to set writing goals with our students (.70). Well-worth it!</p> <p>When we're considering costly materials, intensive training, or an overhaul of our whole schedule, we want to know if big gains are possible.</p>
Statistical Significance	<p>Tells us whether results are just due to chance. (Usually marked with $p < .05$ or similar.)</p>	<p>An intervention can be statistically significant and still not be worth our time or energy.</p> <p>Statistical significance by itself doesn't tell us about practical importance.</p>
Educational Significance	<p>The practical importance of results in a real educational setting, which considers factors like cost, time, resources needed, and the actual impact on student learning</p>	<p>While statistical significance tells us if results aren't random, educational significance helps us decide if changes justify implementation.</p>
Duration of Study	<p>How long the research followed the students (weeks, months, years)</p>	<p>In addition to a post-test right after the intervention, good studies often follow the students to see how well their gains last.</p> <p>Looking at long-term impact can help us avoid expensive interventions that don't produce lasting benefits.</p>
Outcome Measures	<p>The tools used to measure success (standardized tests, curriculum assessments, teacher observations, etc.)</p>	<p>If an assessment measure is closely matched to the skill targeted by the intervention, big gains are more likely.</p> <p>For example, a phonics intervention might show large gains on DIBELS but smaller gains on a comprehension test because reading comprehension involves many skills beyond decoding.</p>
Implementation Fidelity	<p>The degree to which the intervention was delivered as intended</p>	<p>While we might think fidelity to an approach restricts teacher autonomy, it actually represents having the training, resources, and support necessary to implement a program effectively.</p> <p>Teaching with good fidelity means we're more likely to get results similar to the study.</p>



Finding relevant education research

Though I see interesting articles posted on social media, I usually try to select my reading from a peer-reviewed journal or curated set of resources, like [those that are on this list](#).

When I need to quickly determine if a study is worth a close read, I'll start with the abstract.

For an article [like this](#), I'll note the following information in the abstract:

Title: makes me curious and reminds me of Jan Hasbrouck's quote, "Instruction is brain surgery!"

Authors: reliable researchers (Fletcher, Foorman, etc)

Sample size:

- small, 16 students
- 8 students of varied ages, all with severe decoding difficulties
- 8 students who never had reading problems

Intensity of the intervention: 80 hours of intensive remedial intervention in two months

And at this point, I'll stop and think about the relevance of the study to my classroom instruction. I would need to find two hours a day to work one-on-one with students in order to put this intervention in place. This study shows something important – intensive intervention seems to help rewire the brains of struggling readers, regardless of their age – but it's not feasible to attempt this instruction in my classroom. I might read and discuss this study with a friend who does tutoring, but it doesn't offer super relevant guidance for my classroom instruction.

A related note: If I find an abstract of interest but it's behind a paywall, there's usually an email address for the author(s). A short, friendly email does the trick, and I use my school address so that they know that I'm a teacher. The author will typically send me a pdf version within a couple of days. Then I can skim the article (or upload it with some targeted questions about the intervention and findings to ClaudeAI) to determine how much time and attention I should devote to reading it.

Valuing meta-analyses

Meta-analyses help me find evidence-based teaching strategies because they review the literature on a particular topic and summarise the findings. For example, [this paper](#) served as a basis for training in SRSD writing that several of the teachers at my school attended.

If I didn't have the time to carefully study the whole paper, I would have zeroed in on the strategies that had the greatest effect sizes – I'd read the descriptions of each to see if my teaching seems similar (sentence combining?) and if there are strategies that I should explore (peer assistance! setting product goals!).

Then, I'd skim down to the section labelled 'Discussion' to read the specific points that the authors wanted to emphasise. The section called 'Limitations' is especially important because it explains how far we can/should go, if we're drawing our own conclusions about implications. This particular article is especially educator-friendly because it has a section titled 'Issues Involved in Implementing the Recommendations'.

I typically hunt for articles that evaluate instructional strategies possible in the classroom environment with students like mine. There's quite a lot of articles that fit those criteria, but even more that don't, and so I save myself a lot of time!

Braving the research–practice divide

Though I'd love to get a PhD in statistics or methodology, I've found I can still sift through publications to find ones that are useful. Articles often connect me with researchers. Sometimes, I'll ask follow-up questions to make sure I'm on the right track with my interpretation:

- So, am I right in inferring that ...?
- Is it safe to say that ...?
- How would you want a teacher, like me, to apply what you've learned?

Asking our teacher-y questions [can be intimidating](#), but I remind myself that it's my job to balance the evidence with my professional judgement about what's feasible and worthwhile in my classroom. The more discerning teachers become about research, the more focused and effective we can be in raising our students' achievement. We couldn't possibly work any harder. Working smarter is the only option.

This article originally appeared on [The Right to Read](#) blog.

Margaret Goldberg is currently a literacy coach at Nystrom Elementary, a school in California's Early Literacy Support Block grant. Within that grant, she supported a network of literacy coaches, all striving to improve early literacy achievement in California's lowest performing schools. Prior to this, Margaret held a variety of roles including district Early Literacy Lead, reading interventionist, and classroom teacher. She is the co-founder of The Right to Read Project, a group of teachers, researchers and activists committed to the pursuit of equity through literacy. Her writing is published on [The Right to Read Project](#) blog and on [Reading Rockets](#).

Is a noisy classroom a thinking classroom?

**Carl
Hendrick**



A new study makes a surprising finding on the hidden costs of classroom chatter on thinking.

When I first started teaching English 20 years ago, a fairly uncontested idea was the notion that [‘a noisy classroom is a thinking classroom’](#). This became a kind of benchmark for lesson observations and judgements of teacher quality, where the more talk in a classroom, the more proof you were doing something right. Silence, by contrast, was suspect; a sign of passivity or dull compliance. This was especially true for English where meaning was seen as socially constructed through dialogue. This usually meant students talking in groups for large parts of a lesson.

I always struggled with this idea because so much of what made literature so precious for me as a boy was [that sacramental act of reading](#), that intensely private communion between reader and text that demanded solitude, quiet, and the kind of sustained inward attention that outward chatter destroys. During my formative years as a reader, I went to a secondary school where thankfully I was spared the tyranny of classroom ‘activities’ and there were many lessons where we were simply invited to read for extended periods.

Now, nobody wants completely muted classrooms of course, and it should be said that rich class discussion is not just a key driver of learning *when facilitated well*, but it’s also a core part of students’ apprenticeship into social and academic discourse. To be clear, rich classroom dialogue, in the Socratic sense, is undoubtedly an engine of collective reasoning and a way of cultivating habits of democratic engagement, questioning, and crucially, intellectual humility.

But there’s a crucial distinction between purposeful dialogue and the undertow of ambient verbal clutter so often seen in group work activities. The former requires what we might call ‘cognitive presence’; the ability to attend fully to both one’s own emerging thoughts and the contributions of others. I’ve always felt that the noble aspirations of oracy as not just a form of teaching but as an end in *itself*, were always compromised by the fact that when working memory is fractured by competing semantic demands, students become less capable of the kind of deep listening and thoughtful response that genuine dialogue demands.

The other thing is that for some neurodiverse students, the constant demand for verbal participation creates a double burden. Not only must they process complex academic content while filtering out semantic interference, but they must also perform their understanding in a mode that feels often unnatural to them. Many students often do their best thinking in solitude, drawing energy from internal reflection rather than external interaction. The student who needs time to process, who prefers to think before speaking, who finds their voice through writing rather than discussion, can feel like educational outsiders in their own classrooms.

Darkness visible

[The noisy classroom](#) however, offers a compelling vision of education: talk over silence, energy over passivity, student agency over compliance. Part of its force comes from the fact that we can never directly observe learning, we can only infer it. So the sight of students clustered in discussion becomes a kind of visual shorthand: groups talking together must indicate thinking, reasoning, grappling with ideas. In that logic, noise becomes a proxy for evidence, something visible and audible that observers can latch onto. Silence, by contrast, is ambiguous and suspect: how do you prove thought is happening in quiet?

Then there is its resonance with prevailing ideals: as schools place more emphasis on democratic engagement, oracy, collaboration and student voice etc, classroom noise becomes a symbolic container for those virtues. These claims rest on several implicit premises:

- 1 That talk is the outward expression of internal thought.
- 2 That collaboration and discussion are

more cognitively productive than quiet individual work.

- 3 That noise is a sign of intellectual vitality, better than stillness.
- 4 That students produce reasoning by orally processing it, rather than in silence.

In a sense, some of these claims are true and nobody would want completely silent classrooms as I've said. Indeed, in many cases a noisy classroom *is* a thinking classroom especially in subjects like drama or foreign languages. In a science classroom, students doing practicals might be describing observations, hypothesising, arguing about measurement or anomalies, troubleshooting experiments, comparing results; all of which generates noise. Many adherents of talk as the main lever of learning would also say that the noise needs to be productive not merely noisy. If kids are engaged in meaningful discussion, what's wrong with that noise?

Well a new study in [Cognition \(Marko et al., 2026\)](#) shows just how costly that particular noise can be if students are

trying to think hard about something. The researchers found that when we are trying to retrieve certain concepts from memory to generate new ideas, the greatest interference comes not from meaningless sounds (traffic, humming, background tones etc), but surprisingly from *meaningful speech*. Background words, even those we are not consciously attending to, intrude on our semantic networks, activating irrelevant ideas and clogging up the very mental pathways we're trying to use. Crucially, the more effortful the thinking, the more destructive the interference becomes.

The explanation for this seems to be that the brain processes speech for meaning automatically and involuntarily, whether you want it to or not. This creates interference not by stealing attention, but by creating competing neural activity in the same systems you need for thinking. The researchers conclude this supports an 'interference-by-process' explanation: background speech disrupts thinking not by grabbing your attention, but by involuntarily activating the same semantic processing systems you need for the main task.



The researchers found that when we are trying to retrieve certain concepts from memory to generate new ideas, the greatest interference comes not from meaningless sounds (traffic, humming, background tones etc), but surprisingly from meaningful speech.

The effect is particularly pronounced because classroom talk is typically meaningful, topic-related speech; exactly the kind that maximally activates semantic networks. When students are engaged in effortful learning tasks requiring semantic processing (reading comprehension, problem-solving, creative writing, complex reasoning), this background semantic activity becomes cognitively costly in ways that other environmental sounds do not.

The conclusion's point about *interference increasing with relatedness between cues and distractors* is particularly damaging to classroom practice. Students discussing related topics create maximum interference for peers working on similar material – exactly the opposite of what we'd assume about 'productive classroom talk'.

The theatre of engagement

The notion of noisy classrooms as vehicles for learning is evident in the work of Peter Liljedahl, whose ['Building Thinking Classrooms'](#) approach has become a lodestone for many mathematics teachers. His classrooms look radically different from the traditional model: students stand at vertical whiteboards, clusters form unpredictably, and voices rise and overlap. In this formulation, noise is not a bug but a feature; the more lively the classroom, the better the learning.

This assumption rests on three problematic premises for me: firstly, that internal cognitive work is somehow inferior to its external manifestation; secondly, that silent students are passive students; and finally, that learning can only be validated through performance. But thinking and talking are not competing activities, they are complementary processes that require different cognitive conditions to flourish.

This creates a pedagogical paradox. The observable signs of engagement; the animated discussions, the collaborative energy, the visible grappling with problems – may actually be working against the invisible cognitive work of academic reasoning. We're optimising for what we can see and hear rather than what we cannot: the delicate, internal processes of working memory, semantic retrieval and conceptual understanding.

It would be ridiculous to suggest that this study invalidates classroom talk and there is, of course, a crucial place for discussion, for dialogue, and for collaborative inquiry (to belabour the point; as a card-carrying Bakhtinian¹, I'm firmly of the belief that meaning emerges through the collision and interplay of different voices and viewpoints) but talk is not noise and we should be wary of elevating noise into a proxy for thought.

This is not an argument for educational monasteries or a return to Victorian silence. Rather, it's a call for cognitive hospitality; creating learning environments that honour both the social *and* solitary dimensions of thinking. We need classrooms that can move fluidly between modes: collaborative when ideas need to be shared and tested, quiet when concepts need to be grasped and consolidated.

Endnote

¹I did my PhD on Bakhtin and among the best reading experiences of my life was reading Dostoyevsky while also reading Bakhtin's commentary on him. For Bakhtin, Dostoyevsky is the only writer worth reading because he is the only writer whose characters truly speak with their own voice, unmoored from authorial intent.

This article originally appeared on the author's blog, [The Learning Dispatch](#).

Carl Hendrick [[C Hendrick on X](#)] is an internationally recognised expert in the science of learning and instructional design. He is a professor at Academica University of Applied Sciences in Amsterdam and leads research projects that bridge cognitive science, educational psychology, and classroom practice. Carl's work focuses on helping teachers and school leaders apply robust, evidence-based strategies – such as retrieval practice, spacing, and explicit instruction – to improve student learning.

Acknowledgement of Country

**Anna
Taylor**



The following is a written transcript of Dr Anna Taylor's Acknowledgement of Country, presented at MultiLit's inaugural 'Advancing Effective Education' Summit in May 2025.

Aboriginal and Torres Strait Islander readers are advised that this article contains the name and image of an Aboriginal person who has passed away.

Thank you for inviting me to acknowledge the Gadigal People of the Eora Nation as the traditional Custodians of the land on which we gather today. I'd like to recognise their continued connection to the land and waters. I pay my respects to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander People joining us today.

I'd also like to highlight that we are currently in Reconciliation Week, a time in which we remember and acknowledge the mistreatment of Aboriginal and Torres Strait Islander People who were forcibly removed from their families and communities, who we now know as The Stolen Generation.

My grandmother, Cecilia Earnshaw (nee Turvey), was a Noongar Balladong woman who was born on an Aboriginal Reserve on the outskirts of Kellerberrin in Western Australia (WA) around 1932. At around age six, along with her younger sister, my Nan was forcibly removed from her family by the Australian Government under a policy deeply imprinted with racism – assimilation. The government hoped that Aboriginal people, especially those of mixed descent, could be absorbed into white society over generations.



Cecilia with her granddaughters (Anna on the left and her sister Jill on the right).

Acknowledgement of Country

Nan remembered being told they were going on a holiday. She was given a new dress and shoes before travelling a very long distance by train to Moore River Native Settlement. Every day at Moore River, my Nan and her sister stood in the yard behind the high wire fence, waiting for their father to come and take them home. But of course, it wasn't a holiday and their dad never came. Like many children sent to the settlement, she had no way of knowing that her family had little control over their removal or the possibility of their return.

About twelve months after arriving at Moore River, my Nan and her sister were transferred to Sister Kate's Children's Home in Queens Park, Perth. Nan started school at age eight at the local primary school not far from Sister Kate's. She remembered jumping from bush to bush on her walk there and back each day to keep her bare feet off the hot sand. She said she was put in a class with much younger children and had to learn very quickly. Other children at school often called the girls from Sister Kate's 'homies' and other racist, cruel names. Nan said she never made a white friend at school – never. Teachers were very strict, and she recalled being struck across the back of her legs in front of the class as punishment for even the smallest mistakes. Speaking her first language, Noongar, was forbidden and for this she was punished by having her mouth washed out with soap.

Nan finished primary school and briefly attended Perth Girls' High School. At just fourteen years of age, instead of being returned to her family, Nan was sent away to work without pay as a domestic servant. She spent about a year in the small town of Three Springs before being sent to work on a farm at Arthur River. The push to absorb Aboriginal girls leaving care into white society did not end there. They were actively encouraged to marry white men, which would support the government's broader aim to eventually 'breed out the black'. Before long, Nan fell pregnant, married soon after and went on to raise four children.

As my Nan grew up as an Aboriginal person disconnected from her family and culture, but in a world built around white values and systems, she continued to face racism and barriers that limited her opportunities. She never finished school, never learned to drive, never belonged to a group, never had a bank account,

never had a paid job, and never travelled interstate or overseas. And yet, despite all she endured, I remember my Nan as a deeply kind and compassionate woman who faced the world with quiet resilience. She made the most of what she had, seldom complained, and found joy in knitting, cooking, gardening and reading.

I often think of how she would care for abandoned lambs on the farm – bottle-feeding them until they were strong enough to survive on their own. Looking back, it was more than just kindness. It was her way of showing that every life matters, and everyone deserves a chance. I'd like to hope that same spirit of compassion and determination lives on in me.

Being removed from her family at a young age meant that my Nan lost her connection to Country, to her family and to her language and culture. As a result, my mum and my sister and I, and my own children, also missed the opportunity to grow up with these connections. So here I am – perhaps not the Aboriginal woman you might expect. But I'm also not the Aboriginal woman I might have had the chance to be. The truth is that I have only begun to actively learn about my Aboriginal family and culture in recent years.

While telling this story is a little difficult, and I know that my Nan would not have wanted pity or to be thought of as a victim, it is through sharing this that I hope people will better understand the lasting impact of assimilation policies. There is no denying that the removal of Aboriginal children caused deep and lasting harm. The effects are still felt in our communities today, in the form of socioeconomic disadvantage, mental health struggles and a continued fight for justice.

I know my Nan would be incredibly proud of us today. My mum, Nola, trained as a teacher, graduated with honours in a degree in social work, and is still working almost full-time at the age of 73. My sister, Jill, has had a long and successful career at the University of Western Australia. And I'm getting pretty close to completing my PhD at Curtin University. We've also been deeply fortunate in recent years to reconnect with lost family members, including our Auntie Lois, who has generously shared with us stories and cultural knowledge passed down through generations.

Unfortunately, my family's story is a very common one, especially in WA where it is estimated that 1 in 3



Top L–R. Anna, Jill, Auntie Lois and Nola.
Bottom. Anna and her daughter, Isla.

Aboriginal children were removed from their families under the policy of assimilation. But I'd like to think our journey is living proof that education can drive intergenerational change. Education can break cycles of disadvantage, it can empower future generations, and it can help us to rise above and move on from the injustices of the past. That's why, as educators, we must do everything in our power to keep all children in school and ensure they learn to read – irrespective of their background or circumstance.

I'm particularly inspired by the important work of my colleague and friend, Chloe Allen, Project Director of Closing the Gap at MultiLit. While this work isn't easy, the compassionate and determined way in which she is enabling the delivery of evidence-based literacy instruction to students living in regional areas is having a profound impact.

Let's not forget the difference we can make as we walk forward together – not just in classrooms, but in lives, in families and across generations. Thank you.

Anna Taylor, a proud descendant of the Noongar Ballardong people, is a speech pathologist. Anna currently works as a Speech and Language Specialist for MultiLit, and as a Sessional Academic in the School of Allied Health at Curtin University.

The genre shuffle

**Tina
Zampitella**



How writing instructional planning has evolved and why interleaving is winning.

Once upon a time – not that long ago, really – writing instruction lived in a world of isolation. Think back to the heyday of *Writer’s Workshop* (Calkins, 1986). Writing was a separate block, untethered from what students read. You’d walk into a classroom and hear kids crafting personal narratives, fictional stories, an informative how-to ‘book’ or an opinion piece.

In the early 2000s, curriculum companies swept in and codified what was happening in classrooms, rather than following the research. They preserved the separate ‘writing band’ and tossed in explicit grammar instruction – even though there was little to no research showing that grammar taught this way had any positive effect on writing. The result? A writing block that stood apart from reading instruction. While students would write in response to texts read during the reading block, ‘writing’ was primarily viewed as the separate block.

The next generation of curricula has continued to emphasise writing in response to texts, and some even dropped the separate writing block. The challenge with these curricula is that they primarily ‘assign’ writing, rather than lean on the kinds of evidence-based strategies supported by evidence-based practices for how to explicitly teach students to write.

Leslie Laud



Three genre instruction arrives

You may recall how in 2012 – the new writing standards burst on the scene. These standards divided writing into three text types: informative, opinion and narrative. In response, and without research yet to guide us, schools moved to divide the year into three parts and teach each for one third of the year.

However, the drawbacks of this evolution surfaced quickly. Informational and opinion writing share the same expository structure. Why separate them, when toggling between the two – while reinforcing shared structures and clarifying their differences – could actually solidify mastery of both more quickly and efficiently? In fact, recent research shows that teaching one (informative) automatically raises quality in the other (opinion) with no additional instruction ([Harris et al., 2023](#)).

Even more, does opinion writing, particularly ‘writing from head’ (think: ‘favourite pet’ assignments) merit its own unit? With only 24% of the United States ([NAEP, 2012](#)) writing proficiently, should a third of the year or even a month be spent on a type of writing that we have no evidence supports larger ELA proficiency gains? Every minute is precious. When students write an opinion piece about which character in a story they most admire, or whether people in ancient Sparta or Athens had a better life, by drawing on evidence to support their reasons, the added benefits are significant. To write opinion pieces in response to texts, students learn to ‘read with a writer’s eye’. As they gather evidence, they can also pull and use the vocabulary or note and mimic sentence patterns they discovered as they read. They mine and use the texts they read as a launch pad to help them to elevate their own writing, growing their overall literacy skills as they do.

The genre shuffle

Enter: Interleaving

This brings us forward to 2025 and to the latest thinking in the field of writing which focuses on connecting reading to writing (Kim & Zagata, 2024), and allows us to touch on current important cognitive science advances such as interleaving (Firth et al., 2021). Interleaving suggests that it's more powerful to revisit genres throughout the year rather than isolate teaching them one-at-a-time, bunched up, dedicating a third of the year to each. Interleaving builds long-term retention. It keeps genre structures fresh and supports the development of transferable writing skills.

Schools such as [AIM Academy](#) deeply engage in ongoing research and professional development centred around the science of learning. In particular, AIM (Tina's school) is exploring how both interleaved and blocked instructional strategies can support student retention at various stages of the learning process (Firth et al., 2021). These approaches inform AIM's planning across content areas. We continue to further integrate these evidence-based strategies during our curriculum refinement, specifically when it comes to interleaving writing tasks that repeat and revisit genres over the year.

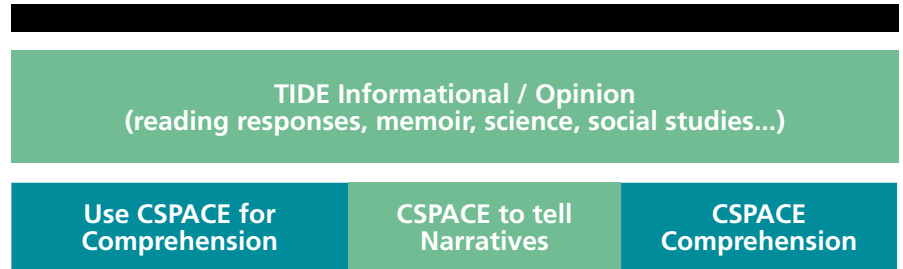
There is time and space for blocked practice, typically when introducing a new genre, and schools working with ThinkSRSD keep this in mind. However, practice must be interleaved, as this approach compels students to engage in critical thinking, which is essential for long-term retention of information.

Even more, the distinction between informative and opinion writing is often unclear and the genres likely blend more

Fall

Winter

Spring



TIDE=Topic, Information, Details/Defend reasons, End
 CSPACE=Characters, Setting, Problem/Purpose, Action, Conclusion/Climax, Emotion
 Figure 1. Suggested teaching schedule by seasons (United States).

often than they do not, with students providing facts in their opinion pieces or wrapping up an informative piece to declare how fascinating it is. Rather than artificially untangling these, we can teach them together, allowing students to naturally draw from each, as great writers always do.

Then, in the winter (US school term), make space for a bunched narrative unit. Let students immerse in storytelling – after all, narrative requires a different structure and benefits from focused practice. You can introduce narrative structure earlier in the year as a tool for reading comprehension and then shift it midyear to teach kids how to craft their own stories.

By spring, students are ready to riff and twist – writing opinion pieces with strong voice, informative pieces with grounded facts, and rich narratives. And the best part? They're not learning these genres in isolation – they're using what they read to inspire what they write.

That's the future of writing instruction. Interleaved. Integrated. Inspired.

This article originally appeared on the [ThinkSRSD](#) and [AIM](#) blogs.

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Dr Leslie Laud supports districts and states in the United States with strengthening writing instruction. She has taught in both general and special education and worked as a principal. She holds a doctorate from Columbia University and is the author of Executive Skills and Writing Instruction.

Blocked

Opinion



Informative



Narrative



Interleaving



Figure 2. Contrast between blocked and interleaved practice.

Welcome to SPOCK: The Society for the Prevention of Children's Knowledge aka know-how for the in-crowd

**Pamela
Snow**



If you thought the reading wars were only about decoding, there are concerning indications that this is not the case, with many education academics internationally, opposing the explicit teaching of background knowledge and some even opposing the explicit teaching of higher-order vocabulary to children identified as coming from linguistically diverse backgrounds.

All students have the right to access a knowledge-rich curriculum.

Recently, I attended two Sydney events that have given me pause for (further) thought on the mixed state of play in Australian education. These were the [Australian School Improvement Summit](#) on Wednesday October 29 2025, and the [researchED Conference](#) at St Catherine's School on Saturday November 1 2025. For those of you unfamiliar with researchED, it is a platform that hosts low-budget events, always on Saturdays, so teachers and researchers can come together, share ideas and discuss existing and evolving evidence concerning education across year levels and sectors.

At both of these events, there was discussion about the importance of a *knowledge-rich curriculum*, for all students, but most particularly those whose backgrounds create a lack of [financial, social, and human capital](#) that can only be offset by strong educational experiences curated by classroom teachers.

[Natalie Wexler](#) is a US education writer and commentator, author of two highly regarded texts, [The Knowledge Gap](#) and [Beyond the Science of Reading](#), and co-author, with Dr Judith Hochman, of [The Writing Revolution](#). Wexler was a keynote speaker at both of the above events, acknowledging first that the focus on explicit and systematic phonics instruction in recent years has been entirely appropriate, because of the serious and harmful policy and practice deficiencies highlighted in Emily Hanford's American Public Media [Sold a Story](#) podcast.

Wexler's central thesis (like many before her) is that effective decoding skills are the necessary *but not sufficient toolkit for students' reading success*. She highlights the complex factors that can stand in the way of children's comprehension of text. These include knowledge of increasingly *complex vocabulary*, mastery of more elaborate sentence structure, inferencing ability, and the application of prior (*background*) *knowledge* when reading. Of course, different factors may be more or less in play to create difficulties for different children reading the same text.

Children who cannot efficiently and effortlessly lift unfamiliar text off the page, also cannot efficiently and effortlessly understand said text, particularly as its complexity rapidly increases after the first three years of school. The distinction between the [constrained skill of decoding and the unconstrained skill of comprehending text](#) should never have been a matter of debate, but some education academics continue to contest the importance of early explicit decoding instruction and oppose moves at policy level for this to be mandated, e.g. see [here](#). Such commentators are silent on the fact that a growing number of schools, after adopting explicit teaching approaches, see a significant uplift in reading success in their students, often in spite of socioeconomic factors that make such success even more challenging, e.g. at [Churchill Primary School](#) in rural Victoria, [Marsden Road Primary School](#) in western Sydney, and [Blue Haven Primary School](#) on the NSW central coast – to name a few.

The reading comprehension assembly line

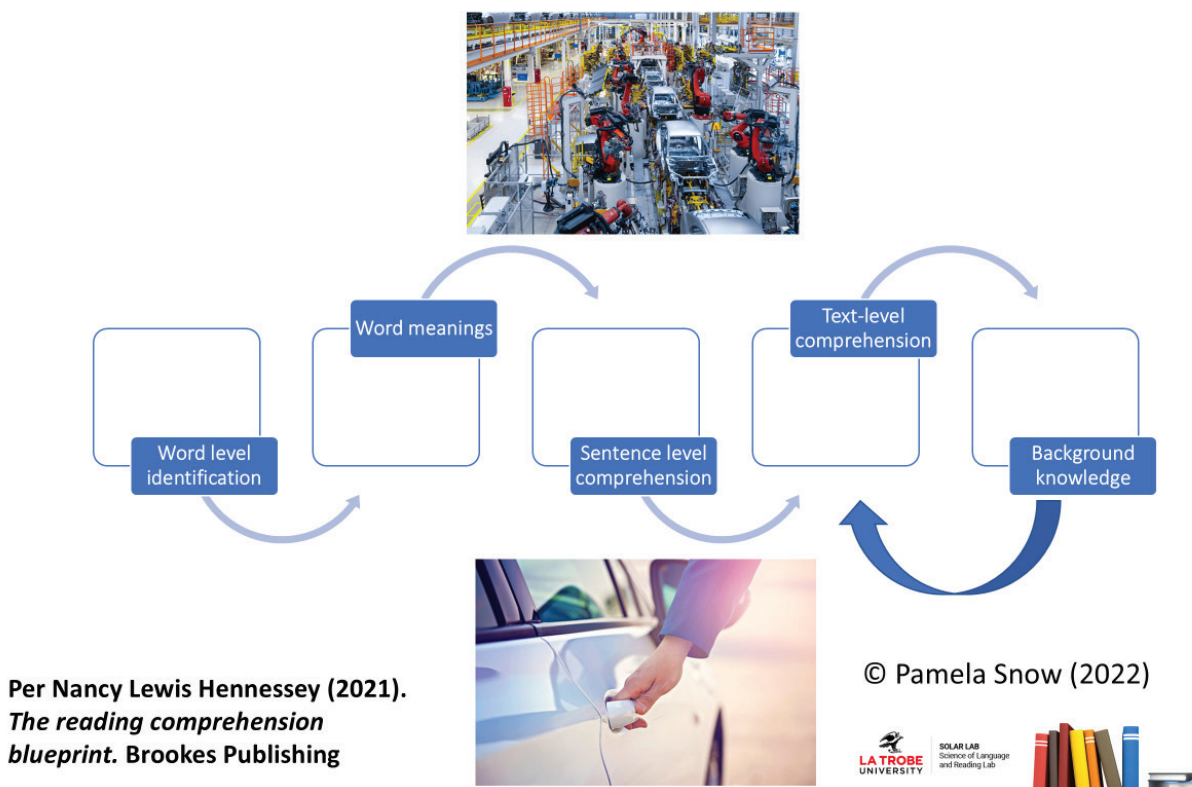


Figure 1. The reading comprehension assembly line (P. Snow).

Wexler makes a compelling and evidence-based case for classroom practice to continue to be *purposeful and explicit beyond the early mastery of decoding*, so that children's comprehension of texts (and by extension, their enjoyment and learning) continues to grow and meet the unconstrained challenges that can stand in the way of academic success. This is illustrated in Figure 1, which I compiled to reflect Nancy Lewis Hennessey's analogy in her 2021 [Reading Comprehension Blueprint](#) text that reading comprehension is akin to a factory assembly line, so is dependent on all processes and components being fully engaged via classroom teaching.

And just to be clear, neither Hennessey nor I are saying schools should be like factories. This is an analogy for how reading comprehension occurs.

If you thought the reading wars were only about decoding, there are concerning indications that this is not

the case, with many education academics internationally opposing the explicit teaching of background knowledge and some even opposing the explicit teaching of higher-order vocabulary to children identified as coming from linguistically diverse backgrounds.

Let's look at these separately.

Opposition to the teaching of knowledge

It would probably surprise (and dismay) most parents and other taxpayers to know that there are education academics around the world who get up in the morning to rail against the teaching of knowledge to children at school. Some refer to the privileging of knowledge-teaching as the '[learnification](#)' of schools. I am not making this up.

The general argument goes something like this (my high-level synthesis):

Knowledge-rich curricula are overly prescriptive, culturally narrow and politically conservative, meaning that certain 'knowledges' and learners are

privileged/prioritised while others are neglected. It is not possible to agree on what knowledge should be included and what should be excluded, so curricula should be *inclusive, dialogic and socially transformative*, where 'knowledge' is not simply delivered but contested, contextualised, and co-created. There is a premium placed on so-called '21st century skills' such as communication, collaboration, critical thinking and creativity and these are priorities for classroom time, via activities that favour 'engagement' over evidence of actual learning. We can't agree on what knowledge to privilege so we should by-pass it altogether.

Some academics are actually sounding an alarm about the 'intrusion' of terms like 'evidence-based' and 'knowledge-rich' into education debates and policies, e.g. see [here](#) and [here](#). Others argue for a greater emphasis on play (see [here](#)) and on building relationships and wellbeing at school, e.g. see [here](#). [Professor Pasi Sahlberg](#) of the

University of Melbourne has even coined the acronym ‘GERM’ (Global Education Reform Movement) to deride the efforts of policy-makers, school leaders and individual teachers who work hard to leverage the social justice potential of education through evidence-based instruction and school accountability. Background knowledge might be handy here, as [some germs are actually essential for good health](#). If there’s somewhere I can sign to be a card-carrying GERM ambassador, I’m in.

Accountability is disparaged by some as a ‘neoliberal’ artefact. Funnily enough, I see no objections by these same commentators to accountability in health, engineering and aviation – where they may personally experience the consequences of ‘choose your own adventure’ practices. I’m musing over an opposite term to neoliberal – *paleoprogressive* perhaps?

For some education academics, the crisis is not that [30% of children are not proficient readers, or that the burden of this disparity is disproportionately borne by students in equity and diversity groups](#). No. The crisis is that governments and education sectors are visibly galvanised in increasingly coordinated efforts to do something about this – by putting in place the kinds of policies and practices likely to lead to intergenerational change.

Much of the opposition to explicit teaching of knowledge comes from education academics (rather than teachers themselves) and is veiled in the language of *academic freedom, teacher autonomy and a vague need to ‘re-imagine’ schools and schooling*. Unfortunately, this is often a fig-leaf for “we don’t like the evidence on the impact of explicit teaching on student academic and wellbeing outcomes”. In the quest for improved educational outcomes for all students, academic freedom has a mere cameo role at the margins, and must yield to evidence, in the way this is managed in respected disciplines such as medicine, psychology, engineering, nursing, and aviation. These are all professions that have *accountability contracts with the communities they serve*, and practitioners are required to answer (often quite publicly) for poor decisions and adverse outcomes.

As [I have noted previously](#), much of the early heavy lifting in the so-called GERM has come from classroom

teachers. Policy makers in Australia (and elsewhere) are increasingly on the bus but many education academics are yet to even acknowledge there’s a journey to undertake that they need to be part of. *Until things change upstream in the halls of academia*, there will be enormous practice bottlenecks and inefficiencies (and thus continued student inequities) downstream.

Opposition to the teaching of Tier 2 vocabulary to children from minority groups

In [this 2024 paper](#), British educational linguist [Dr Ian Cushing](#) takes aim at the consideration of vocabulary in terms of ‘tiers’, as described by [Isabel Beck](#) and her colleagues in the US (e.g. in the well-regarded and widely-used text [Bringing Words to Life](#)). Cushing applies a postmodernist critical lens to argue *against* the teaching of higher-order (Tier 2) vocabulary to children from Black minority backgrounds, on the basis that to do so is to impose “colonial histories of raciolinguistic ideologies” (p. 972) and class-based power dynamics on the language of such children. He claims (p. 976) that:

“It is a very specific type of child that Beck and her colleagues have in mind when arguing for the targeted instruction of tier two vocabulary: Black children from low-income communities. Reproducing the same raciolinguistic ideologies as articulated in the writings of white European colonisers and anti-Black deficit thinkers as I described above, Beck et al claim that such children are unlikely to experience ‘language rich’ environments at home or with peers, unlikely to use language in ‘reflective, playful, or novel ways’, and unlikely to encounter ‘extensive and sophisticated vocabulary” ([Beck et al. 1987, p. 156](#)).

There’s a major problem with this claim, however. It is not an accurate reflection of the Beck et al. source from which Cushing is quoting. I have

read the chapter in question, and they make no reference to race, Black or otherwise, anywhere. It is unfortunate that this point escaped the [Language and Education](#) reviewers, who appear to have accepted on face value, the proposition that such an overtly racist position would be adopted by respected reading scientists.

It is notable too that Cushing seems happy to overlook the educational needs of minority children and the possibility that to succeed in an English-speaking education system, mastery of Tier 2 vocabulary might be as useful to them as it would be to other children (right across the socio-economic spectrum), whose comprehension of increasingly complex texts will be compromised without receptive and expressive vocabularies that go beyond everyday Tier 1 common words learned in the context of home and community interactions, regardless of text exposure. Vocabulary contributes to mental models of knowledge held in long-term memory. As [Kintsch observed in 1998 \(p. 127\)](#) “Comprehension begins with the identification of individual words and their meanings; without this, no higher-level integration is possible.” Kintsch was in no way suggesting that reading comprehension ends with word knowledge, a point taken up by E.D. Hirsch in 2003, in his paper with a built-in self-explanatory title: [Reading comprehension requires knowledge of words and the world](#).

Cushing offers no suggestions as to robust, culturally responsive, dare I say it, evidence-based instructional support for the children he is seeking to ‘protect’ from being explicitly taught Tier 2 vocabulary. Presumably they should simply not be allowed to read texts that contain these words? Someone should alert the librarians in UK schools so this can be policed. Contrast this with the late [Dr David Corson’s](#) observation that “A diverse and rich vocabulary is a better tool for dealing with a complex universe” ([1995, p. 2](#)).

Interestingly, Cushing pays little attention to Tier 3 words (typically described as lower-frequency and more subject-specific than Tier 2 words) and in fact claims with respect to the work of Beck and colleagues that these are “...generally dismissed as not important for teaching” (p. 979). What Beck et al. actually wrote is that “...Tier Three consists of words that tend to be limited

So, if we're not careful, the next reading war is not going to be about how we teach decoding (the jury has returned a verdict on that one), but rather whether we teach complex vocabulary and background knowledge to all students, so all students can engage deeply, and dare I say it, critically, with increasingly complex texts.

to specific domains (e.g. enzyme) or so rare that an avid reader would likely not encounter them in a lifetime (e.g. abecedarian)” (p. 20). If we ‘protect’ students from the deficit-based thinking of Tier 2 vocabulary teaching, how, I wonder, should they leap-frog from Tier 1 to Tier 3 words, so they can engage with specific curriculum areas? Or should students from equity and diversity groups be spared exposure to vocabulary-dense subjects such as biology, geography and mathematics, on the basis that they contain ‘big words’ that they would not use in their home contexts?

I wonder whether Dr Cushing asks his own students from minority backgrounds (who have presumably acquired sufficient Tier 2 vocabulary to succeed at school given they have made it to university) to engage with a different academic reading while those of white Anglo ethnicities read this paper?

Although I could have easily predicted the answer, I asked ChatGPT to analyse a 1000-word sample of Dr Cushing’s paper, to determine the proportion of content words (nouns, verbs and adjectives) that are Tier 2 or Tier 3. The result? Forty-five percent were Tier 2 and 35% were Tier 3. So, 80% higher-order vocabulary all-up, in a breathtaking example of pedagogy for the privileged.

In Tier 1 parlance, we might call this know-how for the in-crowd.

So, if we’re not careful, the next reading war is not going to be about how we teach decoding (the jury has returned a verdict on that one), but rather whether we teach complex vocabulary and background knowledge to all students, so all students can engage deeply, and dare I say it, critically, with increasingly complex texts.

The *Society for the Prevention of Children’s Knowledge* is open for business.

Don’t trip over your privilege on the way in.

Further reading on the vocabulary debate

- If you’re interested in this debate, do read US reading practitioner Harriett Janetos’ Substack article and make sure you work through the comments that follow: [Is Teaching Academic Vocabulary Racist?](#)

- Readers are also referred to this response to Cushing’s paper, by Dr Kathleen Brown of the University of Utah Reading Clinic: [Letter to editors: commentary on tiered vocabulary and raciolinguistic discourses of deficit: from academic scholarship to education policy.](#)
- Cushing’s response to Brown is published here: [A response to Brown.](#)

This article originally appeared on the author’s blog, [The Snow Report.](#)

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Sweden education shift: From digital learning to pen and paper

Think Academy

The education system in Sweden is making global headlines by shifting away from heavy digital learning towards more traditional pen-and-paper teaching.

Once praised for embracing tablets and laptops in classrooms, Sweden is now rethinking how much technology belongs in everyday instruction. The change reflects concerns about literacy, concentration and equality, and it offers valuable lessons for educators and parents worldwide.

The digital wave in Swedish education

Like many countries, Sweden leaned heavily into digital learning during the past decade. Schools introduced laptops, tablets and educational apps to boost engagement and modernise classrooms. The goal was to prepare students for a digital future by making resources interactive and widely accessible.

However, by 2023, Sweden's government and educators began to voice concerns. Studies raised red flags about declining reading comprehension and concentration among Swedish students. The Swedish government officially announced it would scale back the use of digital devices in early grades, with more focus on physical books and handwriting. According to an [AP News report](#), Sweden's Education Minister Lotta Edholm said students "need more textbooks" and emphasised that physical books are important for student learning as the country reconsiders screen-heavy instruction.

The drawbacks of digital education

The retreat from digital tools wasn't arbitrary. Sweden's experience highlights several challenges of relying too much on technology in schools:

- *Declining literacy rates:* Higher levels of screen-based learning were associated with weaker reading comprehension and vocabulary development, particularly in early grades. International reading assessments, including the [PIRLS study](#), showed that Swedish students' reading comprehension scores declined between 2016 and 2021, prompting concern among educators and policymakers about reading outcomes compared with earlier student cohorts.
- *Concentration issues:* With digital devices, distractions like notifications and multitasking reduced focus. Teachers reported students struggled to sustain attention.
- *Reduced teacher-student interaction:* Technology sometimes limited in-person communication and classroom discussions.
- *Equity gaps:* Not all families could provide reliable internet or digital tools at home, widening the achievement gap.

These problems forced Swedish educators to reconsider whether 'more technology' always meant 'better learning'.

Higher levels of screen-based learning were associated with weaker reading comprehension and vocabulary development.



The return to traditional pen-and-paper teaching

Sweden's shift does not mean abandoning technology entirely. Instead, it signals a *balanced approach*. Pen-and-paper exercises, printed textbooks, and in-class discussions are regaining importance, especially in early grades.

Benefits of traditional methods include:

- *Improved handwriting and memory:* Research suggests writing by hand strengthens memory and comprehension.
- *Deeper engagement with text:* Printed books encourage focus without digital distractions.
- *Better learning outcomes:* A [UNESCO report](#) warns against uncritical adoption of digital tools in classrooms and highlights the need for balance.

The Swedish government now emphasises that while digital skills are still necessary, they must not replace foundational skills developed through pen and paper.

How Sweden compares globally

Sweden is not alone in rethinking digital education. Other countries are grappling with similar questions:

- Norway and Denmark are also studying how much screen time is appropriate in early schooling.
- South Korea has introduced

guidelines to limit screen exposure for young students.

- UNESCO's 2023 *Global Education Monitoring Report* called for a more cautious, evidence-based approach to EdTech adoption worldwide.

Sweden's decision fits into a larger global debate about finding the right balance between traditional learning methods and digital innovation.

Lessons for parents and educators

Parents and educators outside Sweden can learn from this shift:

- *Moderation is key:* Technology can enhance learning but should not dominate, especially for younger children.
- *Prioritise literacy:* Encourage reading physical books and handwriting exercises alongside digital tools.
- *Stay informed:* Track your child's concentration and performance to decide how much technology helps or hinders their learning.
- *Hybrid approach:* Aim for balance – use digital resources for research and simulations but reinforce fundamentals with pen-and-paper practice.

Conclusion

Sweden's recalibration of digital learning reflects a growing recognition that technology has limits in the classroom when foundational skills are still developing. While digital tools remain important, Sweden's approach stresses that literacy, concentration and equity must come first.

For parents, educators and policymakers worldwide, the lesson is clear: technology in education works best when it complements – not replaces – traditional learning.

This article originally appeared on the [Think Academy blog](#).

Think Academy, part of TAL Education Group, helps K–12 students succeed in school today by building strong maths foundations and critical thinking skills.

Book review: *Leveled reading, leveled lives*

**Alison
Madelaine**



Shanahan, T. (2025). *Leveled reading, leveled lives: How students' reading achievement has been held back and what we can do about it*.

In his book, *Leveled reading, leveled lives: How students' reading achievement has been held back and what we can do about it*, Dr Timothy Shanahan has brought together all of the relevant information about the use of instructional-level texts to teach reading, something that has persisted for many years despite mounting evidence that it is not best practice. Shanahan argues that although almost all our children are learning to read, they are not learning to read well enough to fully participate in society in the 21st century. But actually, he goes further than this, to say that not only are they not learning to read well enough, but they are being *prevented* from improving “by a longstanding commitment to a pedagogical theory that insists students are best taught using books they can already read” (p. 2–3). Instructional-level texts are those at which students read with a fairly high degree of accuracy, approximately 90–95%. This was intended to provide students with a manageable amount of learning and prevent them from becoming frustrated by more difficult texts.

Chapter 1 provides a comprehensive history of the instructional-level approach. Chapter 2 covers the misuse of theory and how phenomena such as illusory correlation and cognitive dissonance have contributed to the use of instructional-level texts. In Chapter 3, Shanahan reviews the evidence on the use of instructional-level teaching. This covers both correlational and experimental studies looking at the relationship between reading accuracy and reading comprehension, studies looking at the relationship between text placement and learning and studies investigating the impact of text level on reading.



He concludes that teaching students at their instructional level does not benefit students – they either did not improve, or they learned less than students taught at other levels.

Chapter 4 is dedicated to explaining why instructional-level teaching does not work. The alternative to placing students on texts at their instructional level is to use challenging texts, and this is the focus of Chapter 5. Chapter 6 outlines why the approach recommended in this book does not apply to beginning readers (about the first two years of formal schooling). This is so that very young students can master the foundations of decoding and practise their reading on simpler texts (e.g. decodable readers) before being exposed to complex texts.

Chapter 7 is one that teachers will find particularly useful, as it deals with how to scaffold reading comprehension. Shanahan has included sections on vocabulary, syntax, cohesion, text structure, comprehension strategies and prior knowledge. Chapter 8 looks at the role of text level on motivation, and the final chapter presents Shanahan's conclusions and some answers to questions asked by teachers, for example, on the role of rereading, independent reading, and what to do with students who read above grade-level.

Shanahan refers readers to the research when it is available and flags when there is little or no research. The evidence has told us that we need to use complex texts for instruction. Yet there are challenges for educators in implementing the change recommended in this book. Choosing the right texts is one challenge, particularly in Australia, where grade-level texts are not as widely used. An even bigger one is providing the scaffolding needed for students to comprehend more complex texts. No published program can do this as the type of scaffolding required differs in response to the text used and the needs of each unique group of learners. It comes down to teachers using their skills and expertise. Shanahan has given many suggestions and examples that can assist teachers in providing the required scaffolding.

The message in this book is not new – Shanahan and others have been talking about the problems with using instructional-level texts for several years now. What has been lacking is all the information, including what to do

instead, in one place. Shanahan's book is definitely provocative, but it is also needed. Consider the following quote:

“...what if the instructional level holds kids back, suppressing learning and leading to other unfortunate consequences? The issue has to do with the validity of the instructional level concept itself. If students do not learn more when taught at their instructional level, then it has no purpose. If they learn less, then it is malpractice” (p. 43).

Although this book is written with the US in mind, it applies equally to other countries such as Australia. It would be of interest to classroom teachers, particularly those teaching students in Year 2 and up, special educators, reading specialists, school leaders, policymakers and those involved in teacher education and/or research.

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The evidence has told us that we need to use complex texts for instruction. Yet there are challenges for educators in implementing the change recommended.

Should phonemic awareness be taught without letters?

Nicola Bell

Statement of the problem

It has been claimed that phonemic awareness instruction should not involve the presentation of letters (e.g. in the form of tiles). This is based on the premise that, without the capacity to perform phonemic awareness tasks in an oral-only context, students show more limited orthographic mapping (i.e. the theorised process by which a word's spelling, pronunciation and meaning bond together).

Proposed solution

The proposed solution is to have students work towards performing phonemic awareness tasks (and often complex phonemic manipulation tasks) in the absence of letters.

The theoretical rationale – how does it work?

According to the theoretical rationale underlying oral-only phonemic awareness instruction, the provision of such instruction refines readers' underlying phonological representations for words. Consequently, it may enable orthographic mapping by providing a frame onto which incoming orthographic information can connect during the sight word learning process (Ehri, 2014). Note that targeting phonemic awareness for the purpose of refining phonological representations does not preclude the use of letters. Indeed, it may be argued that the presentation of letters serves to reinforce orthographic and phonological bonds. However, a strong interpretation of the orthographic mapping theory has been used to justify the recommendation that students need to become highly proficient in performing phonemic awareness tasks, such that they do not need to rely on letters (or other stimuli) as a crutch. In particular, this recommendation is given in the context of helping children with reading difficulties, who often show weaknesses in orthographic mapping and who also often struggle to perform tasks with high phonological demands.

Importantly, the theoretical rationale underlying oral-only phonemic awareness instruction is distinct from that underlying more traditional phonemic awareness instruction that is taught as a precursor to – or in conjunction with – beginning or remedial literacy instruction. By practising tasks like identifying the first sound in a word, children become aware of individual phonemes and can then start attaching these phonemes to individual letters or graphemes. Other phonemic awareness tasks like blending and segmentation are also directly applicable to the basic

processes of decoding and spelling. In these cases, the goal of instruction is to facilitate learning of alphabetic knowledge and improve closely linked literacy skills. As such, there is a clear reason for incorporating letters into lessons as soon as possible.

What does the research say? What is the evidence for its efficacy?

The role of letters in phonemic awareness instruction was examined in a meta-analysis by Erbeli et al. (2024). They found that oral-only phonemic awareness instruction produced initially strong gains with diminishing returns after a certain period of time (approx. 10 hours). In contrast, phonemic awareness instruction that incorporated letters produced improvements that accelerated further skill development. Stalega et al. (2024) also investigated this question from a different angle in studies examining phonemic awareness training. Specifically, they looked at how the nature of the instruction in the comparison group affected results. Their meta-analysis indicated that print-based instruction (that involves letters and has phonemic awareness inherently embedded into activities) can improve phonemic awareness just as well as instruction that specifically targets phonemic awareness. The results from these two recent meta-analyses do not support the teaching of phonemic awareness in an oral-only context and in isolation from word-level literacy instruction.

Conclusion

At this point, there is no evidence-based rationale for withholding letter stimuli from students as they perform phonemic awareness tasks. This applies to typically developing readers and those with observed difficulties.

Key references

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