Nomanis

Reading | Teaching | Learning | Connecting

READING IS A HUMAN RIGHT: WHEN TO START, HOW TO TEACH EFFECTIVELY

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Wheldall Assessment of Reading Nonwords
WARN

For beginners, reading depends largely on how well they can decode unfamiliar words. However, there are few tests that measure phonological recoding – or nonword reading – satisfactorily in the early years, and far fewer that measure fluency and allow for regular monitoring.

The WARN is brief and straightforward to administer and score, timed so that it measures reading fluency, and associated with valid and reliable Australian performance benchmarks.

Endeavouring to learn Morse*

Kevin Wheldall

During the Second World War, my (late) father served in Burma (now known as Myanmar) as a member of 'the Forgotten Fourteenth' army. He was a wireless operator in a tank corps and had to learn to become proficient in sending and receiving Morse code because radio voice communication frequently became tricky or impossible. The wireless signals of the dots and dashes of Morse code were apparently more reliable in penetrating thick jungle areas. (Apparently, they also overlayed a second code to confuse any listening enemy by sending apparent nonsense such as "I have lost a shoe" instead of referring to a dislocated tank track.)

I remember him telling me that after a while, and a great deal of training and experience, the messages in Morse began to sound, to him, "like music", as familiar strings/sequences of dots and dashes, coding frequently used words, began to be heard by him as wholes. This is not surprising, in a way, because my dad had a very good, if untaught, ear for music. He taught himself to play 'pub piano'. The only drawback, as I subsequently found when I tried to play along with him on guitar, was that he played everything in F#, mainly using all the black keys. Thank goodness for capos! But I digress …

Learning to read is like learning Morse code. You would not get very far if you simply listened to Morse transmissions on the radio and nothing else. You need to learn the code, bit by bit, systematically. It would be some time before you would be able to hear any words or before "dot dot dot, dash dash dash, dot dot dot" registered automatically to you as SOS (Save Our Souls), the international distress signal. (SOS was the only bit of Morse I learned as a child, assuming it might well be needed in my adventures, just like in the Famous Five; sadly, it never was …)

'Picking things up as you go' is no substitute for specific, sequencd instruction. It is unreliable. In the wonderful film *Starman*, Jeff Bridges plays an alien inhabiting a human body; the humour lies in his ineffective and inefficient 'discovery learning' of earthly rules simply by observation of others. When learning to drive, he frightens the life out of his passenger by accelerating at 'g force' when the traffic lights turn orange. Because he had seen others try to beat the lights, he had surmised that the rule must be 'when the light turns to orange, go very fast'!

These little stories illustrate the key essentials of effective reading instruction:

- When learning any complex skill, whether it be reading, Morse, or driving, highly specific, sequenced, accurate instruction is vital.

- In the case of reading, this applies to phonological recoding.

- Learning 'on the run' is too error-prone; witness *Starman*.

- But this instruction needs to allow considerable time for practice ('heaps' of practice, as my son would say) and in different contexts. Reading words in context as well as word lists is essential. (Learning Morse takes intensive training and driving should probably require more, for public safety reasons.)
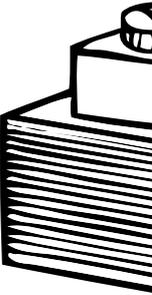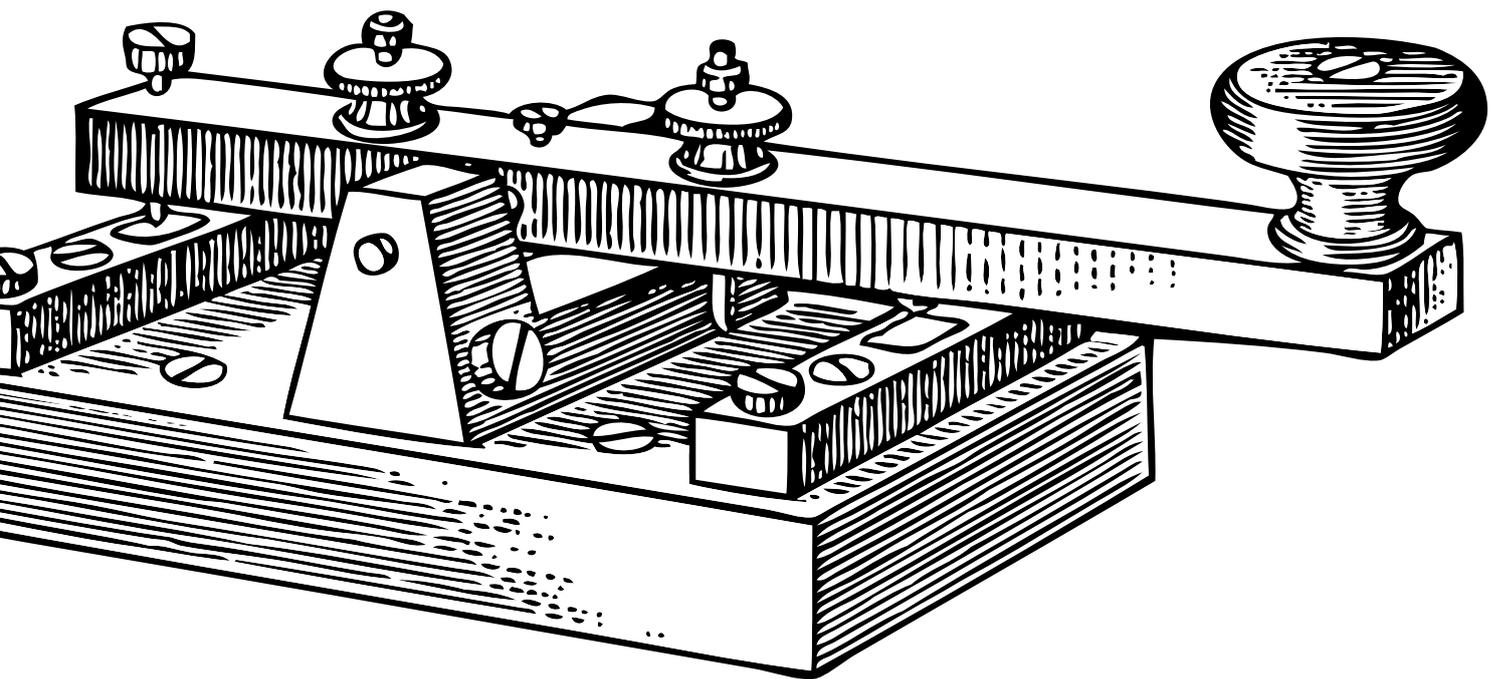
- Instruction needs to have a heavy focus on fluency, without which reading comprehension will be significantly impaired. Timing is all important. Just as in Morse where the time delay between individual letters and words needs to be very accurate, so it is with reading, with the added need for prosody to make sense of the flow of words. Pausing and emphasis in all the right places. To cite Malcolm X, try saying "What have you done?" four times, and hear the meaning of the sentence changing with the emphasised word changing successively: "WHAT have you done?", "What HAVE you done?", "What have YOU done?", What have you DONE?".

- Frequently used words are learned more quickly, as in Morse.

- Good reading comprehension relies on background knowledge and vocabulary; knowing that 'I have lost a shoe' is not to be taken literally.

*I hope someone gets this pun!

Kevin Wheldall, Joint Editor

Just as in Morse where the time delay between individual letters and words needs to be very accurate, so it is with reading, with the added need for prosody to make sense of the flow of words.

What we've been reading

Nicola Bell

My favourite book from the last few months was one I found at an Airbnb during my stay there over the summer holidays. It was *A Man Called Ove*, by Fredrik Backman. I'd heard good things about it and had already enjoyed *Anxious People* by the same author, so I had high hopes. Well, I'm happy to report that those hopes were met and surpassed. I don't think the writing style would be to everyone's taste, but it had exactly the right combination of depth and corniness for me.

Another book I really loved was *The Thursday Murder Club*, by Richard Osman. It had an excellent plot, snappy dialogue, and characters that quickly felt like old friends. I'm currently reading its sequel, *The Man who Died Twice*, and it's so far just as fun.

In the way of non-fiction (sort of), I read the audiobook of *Troy*, which was written and narrated by Stephen Fry, and it was such a great listen that I enthusiastically downloaded the original story of *Troy* as told in Homer's Iliad. Unfortunately, this latter selection is still sitting in my Audible library with about 18 hours left to go. My main note of feedback for Homer: lose some auxiliary characters.

Anna Desjardins (Notley)

Back in December, I really enjoyed *The Paris Library* by Janet Skeslien Charles, picked up off the 'quick reads' shelf at the library. I think the cover undersells this book as a light chick-lit offering, when it is much more. It charts the story of two young women, one coming of age at the time the Germans occupy Paris in World War II (and working in the American Library in Paris, which organised book parcels for soldiers and more dangerously, for Jews sequestered in their homes), the other a teenager in the American Midwest during the 1980s. The two women's stories are beautifully interleaved, and although there are books aplenty out there set during the war, having just come through our own lockdowns, I found that the evocation of curfews, curtailed freedoms and uncertain futures spoke to me on a deeper level this time.

Tracy Chevalier's *At The Edge of the Orchard* was another great one, taking me into the American Midwest again, charting the fortunes of a young man who escapes his family farm near Ohio as an illiterate child, eventually ending up in California where he turns to plant collecting at the height of the European craze for American redwoods. A fascinating look into a time when the advent of tourism spelled a threat to priceless wilderness, as well as a human story of family – in which cruelty bred of hardship is the status quo, but in which love between a brother and a sister still manages to hold on by a thread.

I gave myself an objective a while ago to read a classic every now and then, and this time around have enjoyed soaking in the beautiful turns of phrase of Thomas Hardy's *Far from the Madding Crowd*. Gorgeous though it was, it required concentration, and I needed something light and modern after that – Jaclyn Moriarty's *Gravity Is the Thing* hit the spot. It was fun to read a book set in Sydney among suburbs I know well, and Moriarty's sense of humour had me laughing out loud. Her writing is as true to human feeling as her sister's without the dark edge. Finally, I've just finished *City of Girls*, in which Elizabeth Gilbert dishes up something completely different to her previous novels. Vivian, the ninety-year-old protagonist, is a strong-minded woman who dares to break with expectations as she is growing up. She recounts with acerbity her achievements, her downfalls, her loves and her mistakes, plunging us into the showbusiness world of New York in the 1930s and taking us through the decades to the present day, while endearing us to the motley cast of characters we meet along the way. If you like Gilbert, give it a crack!

Jennifer Buckingham

I got a Kindle for Christmas and used it to download a couple of mainstream novels while in false alarm COVID isolation from Christmas to New Year. One was the latest Inspector Lynley novel, *Something to Hide* by Elizabeth George. I have read a lot of the Lynley novels but this one took formulaic to the next level. I would easily believe it was written by a bot that had been programmed using all the previous books in the series.

Thanks also to the Kindle I read some classics, or at least attempted to: Machiavelli's *The Prince*, Conan-Doyle's *The Adventures of Sherlock Holmes*, and Joyce's *Ulysses* which had been getting a lot of attention because 2022 is its 100th anniversary of publication. I can't say that *The Prince* was enjoyable

but I am glad I took the time to read it. It was different from my expectations based on my general knowledge of its key themes, with fascinating ideas about the nature of power and politics. The *Sherlock Holmes* stories were a delight – such great writing and good fun – unlike *Ulysses*, which I failed to finish yet again. Every time I opened it on my Kindle, the estimated reading time got longer (16 hours and 32 minutes at last count) and I gave up. I did belatedly recognise, however, the similarities in style with another celebrated Irish writer, Roddy Doyle, whose books I also find tough going at times.

The last book I will mention is *Boomers* by Helen Andrews, which I read in good old-fashioned hard cover. Helen is a wonderfully talented writer; there are few like her. *Boomers* is tenaciously researched and viciously funny. Speaking of which, I'd like to acknowledge and mourn the passing of PJ O'Rourke with whom I was lucky enough to have a scotch and cigar a few years ago. RIP PJ.

Kevin Wheldall

I'm a pout-pout fish
With a pout-pout face
So I spread the dreary-wearies
All over the place.

Curiously, one of the rediscovered books I've read repeatedly of late is *The Pout-Pout Fish*, prompted by my newest crop of grandies. What a rollicking read it is! Deservedly, in my view, it was a *New York Times* bestseller in 2013 when published. Written by Debra Diesen with pictures by Dan Hanna, it is highly recommended for reading aloud to 'littlies'.

Speaking of books for grandies, I bought all of them the splendid new 100th anniversary edition of Norman Lindsay's *The Magic Pudding* which is delightful. I am not so impressed by the other book I bought for them, JK Rowling's *The Christmas Pig*, which I am still struggling to finish. I find it dull and a bit of a potboiler. I say this as a big fan of both JK's adult and children's fiction.

Of my more adult novel reading, I have greatly enjoyed (of course) Elizabeth Strout's latest *Oh William!*, John Le Carre's final (and posthumously published) *Silverview*, and Sebastian Faulks's *Snow Country*. On the biography front, I have read *William Morris: A Life for Our Time* by Fiona MacCarthy and one on *The Young H.G. Wells* by Claire Tomalin. (I am currently fascinated by this period of history.) As for *Inside Story* by Martin Amis, was it autobiography or not? Regardless, although patchy, Amis is always a delight to read.

Like many of my female Twitter and other friends, I have just read Bonnie Garmus's much admired *Lessons in Chemistry* and I liked it too, but perhaps not quite as much. While reading this book, I was also watching the TV series *Julia* about Julia Child (the first celebrity chef, or should I say, cook) of whose books I have been a fan from way back. (I still have a dog-eared and falling to pieces copy of the Penguin edition of *Mastering the Art of French Cooking* from the seventies but have since acquired both paperback and hardback editions of the two volume sets.) I was struck by the fact that both these oeuvres, the Garmus book and the TV show about Julia, were very similar in some respects. Both are about two very different celebrity cooks and both are set in the early sixties. Moreover, they both tackle the rampant misogyny of those white-bread times head on.
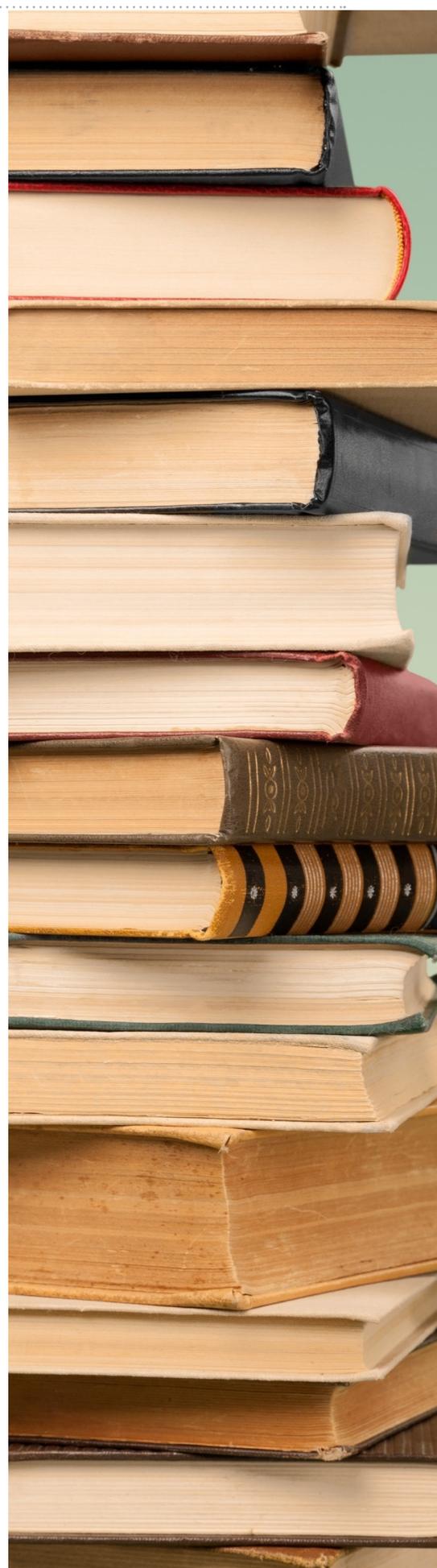
How much phonics should I teach?

**Tim
Shanahan**

Teacher question:

Teacher: I keep hearing about the science of reading and that I need to teach phonics (I'm a second-grade teacher). I'm okay with that but there is a lot to teach in reading. How much of the time should I spend teaching phonics?

Man, was I surprised! I'd already spoken to the principal about the school curriculum. He'd given me an overview and assured me that what his teachers needed was training in academic language and how to ask high level comprehension questions. The speaker at a professional conference had stressed the importance of those in high poverty schools and the principal was convinced that was the road to higher test scores.

I'd asked about how much reading instruction his students were receiving in phonics and fluency, and he assured me those were already addressed. "No, the problem is those higher-level thinking skills that our students lack."

I told him that I thought I could help but that I wanted to be sure. "Could I visit some classrooms before I decide?"

What I saw wouldn't surprise me now, but at that time I was gobsmacked.

The teachers' lesson plans showed a lot of reading instruction. My classroom observations showed something else. Much of the instructional time wasn't used for instruction at all. The teachers spent a big chunk of time on 'sustained silent reading' and they read to the children quite a bit, too. All the classrooms had multiple reading groups. That meant that the boys and girls did a lot of worksheets to keep them quiet while the others were reading with the teacher.

The small group teaching entailed little more than reading a story together out of a textbook, with quite a bit of round robin reading. I guess that was the fluency work.

Oh, and the phonics instruction?

There was some, but that was pretty thin gruel, too.

The teacher would hand out a couple of phonics worksheets from the textbook program. She'd read the directions to the class and have the kids fill out the pages and then she'd score them and hand them back. Phonics assignments more than phonics instruction. I don't know what the publisher had in mind, but probably not what the students were getting.

I didn't keep track at the time. In retrospect I'd guess those kids got about 5 minutes a day of phonics (and as for quality of instruction, please don't get me started). The same point could be made about the 'fluency work'. Round robin reading rarely gives kids more than a minute or so of practice. Across a school year, that would amount to less than three hours of oral reading practice if done daily!

In other words, these children weren't getting much phonics or fluency teaching.

These boys and girls needed to learn how to read. Nevertheless, no one was teaching them very much.

Students could practise but practising what you don't know how to do is not especially effective.

The principal was right. They weren't getting much help with academic language or higher order thinking. But that wasn't their problem.

You asked, "how much phonics should you teach?" Certainly, more than these kids were getting.

The National Reading Panel concluded that students benefited from explicit phonics instruction. It didn't determine how much phonics might be beneficial (it did say that phonics from kindergarten through second grade was a good idea).

In response to your letter, I took another look at those 38 studies. Eighteen of them gave information about dosage. They all were successful. That is, the kids who got those amounts of phonics outperformed the ones who weren't getting that instruction.

These daily amounts ranged from 15 to 60 minutes per day.

Since the phonics instruction in all these studies was beneficial, you could say 15 minutes per day is enough, and maybe it is. But I'd lean towards the averages. There are

different ways to calculate averages. In this case, they all came out to around 30 minutes per day (the mean was 34.4 minutes, and the mode and median were both 30).

Does that mean every child needs 30 minutes of explicit phonics teaching every day?

Not necessarily. Carol Connor found she could divide first-graders based on their decoding proficiency. Those who could already decode well did better working on more advanced reading and writing activities. Those not so proficient did best with explicit phonics teaching. Her study gives lie to the notion that there is no cost to teaching phonics to kids who can already decode well. What that means is that some kids would get more phonics and some would get less.

Also, even with 30 minutes of decoding instruction each day there are sure to be kids who need even more (decoding is a bigger challenge for some). Those kids might receive in-class or pull-out interventions added to the daily classroom phonics instruction.

I required 30–45 minutes of such instruction when I was Director of Reading in the Chicago Public Schools. We aimed for two to three hours per day of reading and writing teaching, so we devoted a quarter of the whole to making sure kids could read the words. Obviously, there is more to teaching reading than that, but 25% is a considerable commitment. Over three years (from Kindergarten to Year 2), that would mean roughly 270 hours of decoding instruction would be available to all students (with some kids getting less due to their burgeoning proficiency and some others getting more – beyond the classroom – due to their particular needs). In the long run, that's more time than any of the studies have provided and certainly more than I often see in the classrooms that I visit.

What counts as decoding instruction?

That will vary a bit from grade level to grade level. At Foundation level, children need to be taught the letters (lower case and capitals, names, most common sounds, how to write them).

Kids must perceive the sounds within words if they're going to link them with letters, and phonemic awareness instruction aims to accomplish that. I would definitely make that part of my decoding instruction, too.

As the kids progress up the grades, spelling patterns and their pronunciations become an issue.

Phonics instruction should teach kids to hear the sounds, to recognise the letters or spelling patterns, and then to connect the sounds and the letters/spellings. They need a lot of practice with those elements within words and some reading practice with them, too (that's where decodable texts come in handy – as part of the phonics instruction).

Instruction should emphasise using this knowledge of letters and sounds to decode words and to write or spell them, too (reading and spelling are closely connected). Decoding words and spelling words should take up a big part of the phonics instruction real estate.

Finally, good phonics instruction must nurture a sense of flexibility. Kids who come to see these letter and sound relations as 'rules' don't do as well as those who see them as possibilities or alternatives.

Thirty minutes per day on that kind of learning in Foundation through Year 2 is a wise investment.

Perhaps you've heard of those 10-minute phonics programs? Given the evidence, they don't seem like such a good idea to me – more like a patch on a deficient reading program than a serious effort to meet kids' learning needs. Thirty minutes a day makes sense to me, I hope it does to you.

....

We interrupt your regularly scheduled program

James Dobson

Recently two graduate teachers confided in me their feelings of guilt over using pre-prepared materials in their classrooms. They both really enjoyed teaching these programs, their students are doing some wonderful learning and they are not wasting time creating something that already exists. Their guilt emerged because they have been led to believe that teachers need to create the content for their students' unique needs. While catering for our students' needs is a crucial aspect of education, we can easily forget that the ways that we learn are generally very similar.

When I go to the doctor, I don't expect them to create the medicine. When I order a meal, I don't expect the chef to have grown the ingredients in their own garden. And when I go to the mechanic, they will order a part rather than make it themselves. So why do we expect all teachers to do the dual tasks of creating a curriculum and teaching the curriculum?

Don't get me wrong: it is important that teachers have the knowledge to create curriculum. It is a waste of time for thousands of teachers to be creating similar curricula in parallel. It is an unreasonable expectation that all teachers be able to produce programs of exceptional quality from scratch.

If you mention that your school uses a program, you are likely to hear the phrase 'programs don't teach students, teachers teach students'. There seems to be an adverse reaction whenever someone mentions that they use a program within education. This is a little strange given that *program* is defined as 'a set of related measures or activities with a particular long-term aim'. That definition could just about sit next to the word school.

Why are people hesitant about using the term *program* when discussing what they do in their classroom?

It is possible that it is because the term *program* is often synonymous with *commercial program*. I know I used to hold to the myth that commercial programs were something to avoid in educating our children. However, I now realise that some commercial programs can benefit schools.

P = Price

A key reason educators give for avoiding commercial programs is that somebody profits from them. There is an understandable scepticism about anyone making a profit from the education of our children. Of course, we need to be wary and avoid any snake-oil salespeople. However, when you look at the actual costs of many good programs you might be surprised. The actual cost is often not much more than the materials would cost.

The real question we should be asking is: "What is the price of creating our own programs?" When we start to add up the late nights that teachers spend creating, printing and laminating our resources, we start to see the real

cost of expecting every school to come up with unique programs. This cost is so significant that 'workload' has become the prime issue in schools in many jurisdictions, including Victoria. The cost of creating your own program is often much more expensive than purchasing one.

R = Ready to roll

One key advantage of using an appropriate commercial program is that they are often packaged to be easily implementable. This means that we have more time for planning other learning experiences. It also means that we are able to focus on *how* we deliver the program, rather than creating *what* we need to deliver.

Recently we implemented a new spelling program. After an initial half-day session our staff were ready to start teaching with the program. There wasn't much for them to create, to print or laminate. Instead, they could shift their focus to reflecting on what worked in each lesson and how to fine-tune their practice to improve the learning of their students.

O = Organised

A commercial program organises the learning. A good commercial program organises the learning well. A good teacher can organise learning well too, but good teachers also have myriad extra responsibilities that keep creeping in the way. It takes time to sequence learning. It takes *a lot of time* to sequence learning well. Teachers often don't have that time. It also takes expertise to sequence learning well. Many teachers are experts, but it is difficult to be an expert in every area that we are expected to teach.

A good program is well sequenced. The skills students learn are built on each lesson and this continues throughout the multiple years of the program. There is consistency between classes and the material that students are learning is delivered in a cohesive way. With a well-sequenced program, the teaching is organised and the learning is also better consolidated.

G = Graduates

When I was a graduate teacher, I was provided with a folder of photocopied literacy worksheets for each week of the term. From this I was expected to craft a complete term of reading and writing learning. I was also busy working out how to manage student behaviours, communicate with parents, juggle teaching in an art room as we awaited new buildings, teach maths, science, history, do yard duties, participate in staff meetings…

Phew! I am exhausted just remembering this experience. It's little wonder that so many teachers leave the profession in the first few years. We are losing people who have the potential to be amazing educators because they are not well-supported. One way that we can support them is to provide them with quality teaching materials.

Why was there an expectation that I could turn the folder of photocopied material into a curriculum of anything near the quality of the experienced teacher next door?

I am not pretending that even with a quality program I would have been as good as those with more experience. But I think I would have been able to focus more on what really matters: my students' learning. I also think that I would have spent fewer weekends planning and preparing.

Graduate teachers need to stand on the shoulders of the giants who have worked before them in education. This may be the experienced mentor next door, but we should also leverage the experience of those external to our school. Many programs have been created by experts who have worked tirelessly on them. Let's not ignore this expertise.

R = Research

I would love more people to see what is happening in my classroom. My blog is partly an attempt to document my teaching so that others can learn from it (and I can learn from others). I want to know more about what makes teaching effective. This is tricky to discern when there are so many factors in a classroom. Is it the way I greet
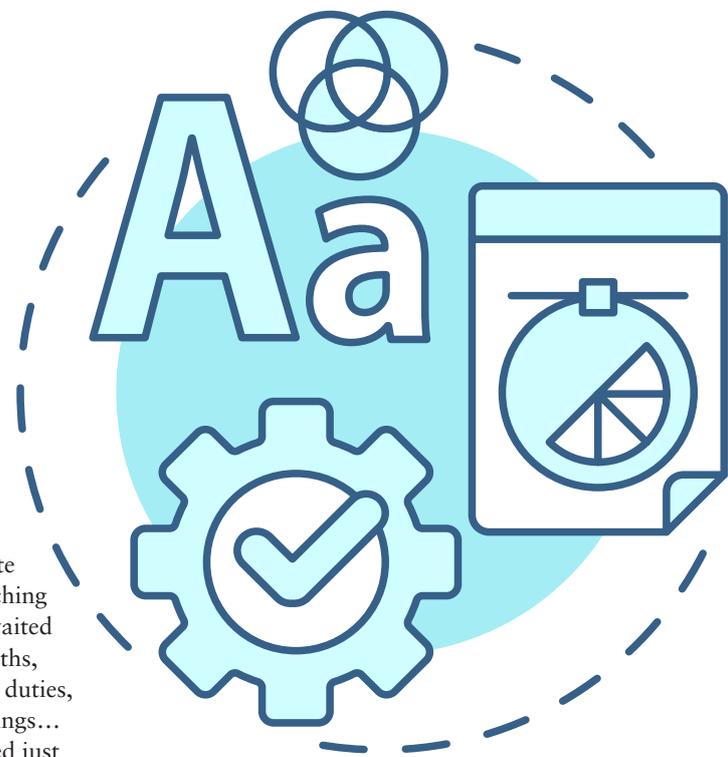
Teachers often work miracles. Let's employ every tool that we have at our disposal so that we can make more miracles happen.

We interrupt your regularly scheduled program

students? Is it how I frame questions? Is it the way that I manage behaviour? Is it the culture of participation that I build? Is it the explicit teaching? Is it a sense of wonder in my students?

There are so many moving parts in one single classroom that it is difficult to work out what elements are essential for effective learning. However, if a number of different classes are implementing a particular program and all are achieving similar results, then the program is likely to be a factor. In this instance we can begin to examine the program, rather than trying to consider all the aspects of all the different classes.

Many commercial programs claim to be 'research-based'. We need to scrutinise these claims so that we can continue to learn what contributes to effective teaching and learning.

A = Artistry

A funny thing happened when I started to use a commercial program in my classroom: I became a better teacher. I no longer wasted countless hours planning. My teaching became more targeted. I was able to pay closer attention to my students. Instead of trying to create an entire unit, I was focused on small tweaks that made significant impact on my students'

learning. In short, I could work on the art of teaching because the program dealt with the science of teaching.

Another myth is that programs turn teachers into automatons. This couldn't be further from the truth in my experience. I have had the privilege of observing many teachers. Even if they are delivering the same program, their artistry always shines through.

M = Miracles

Another line that does the rounds when programs get mentioned is 'there's no such thing as a silver bullet'. You will get no argument from me. Teaching is complex and to pretend otherwise devalues teaching as a profession. We don't need to complicate it further and to dismiss programs because somebody else created them. A program is not a silver bullet. Despite many programs being 'ready to-roll', this does not equate to a 'plug-and-play' situation where anybody with a heartbeat could do the work of a teacher.

Teachers often work miracles. Let's employ every tool that we have at our disposal so that we can make more miracles happen.

S = Students' success

The most important aspect of determining whether to use a program comes down to the very reason schools exist: our students. Their success should be the factor that sways whether a program is appropriate.

If you do not use any commercial programs and your students are achieving wonderful success: congratulations! Thank you for taking the time to read this article and keep doing what you are doing.

Many of us are not in this position and believe that there is room to improve our students' learning outcomes. Perhaps someone has already done the hard work of creating a program that meets the particular long-term aims you are striving for. Perhaps a program that is suitable for your situation exists.

Not all commercial programs are created equal. Some are much better than others. And some are definitely not worth investing in. However, to habitually dismiss the use of all commercial programs increases teachers' workloads, and potentially disadvantages our students.

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

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When should reading instruction begin?

Nicola Bell
Jennifer Buckingham
Kevin Wheldall
Robyn Wheldall
Anna Notley

People sometimes raise the question of when the optimal time is for children to begin to learn to read. This is especially relevant for parents of children who are homeschooled, or who attend schools where the preference is to start reading instruction later (such as Steiner schools), but it is also an interesting question to address more generally.

By formal reading instruction, we mean systematic and explicit instruction in reading and understanding text, with assessment and intervention to ensure students are making good progress. In the years prior to the onset of formal reading instruction, a focus on language development (oral language and phonological awareness), the alphabet, and daily experiences with books and writing, at home and in early education settings, is encouraged.

In the absence of experimental randomised control trials on the outcomes of students who start learning to read at age five vs. six vs. seven years old, we need to consider other types of evidence and reasoning about when students should begin formal literacy instruction.

Country comparisons

We can look to comparisons between countries, since children in English-speaking countries tend to start formal literacy instruction earlier (around age 4.5 or 5) than those in Scandinavian and Nordic countries (around age 7). However, such comparisons are quite difficult to interpret for a few reasons. First and foremost, English has a complex writing system (what is known as a 'deep orthography') and it takes longer to learn than most other alphabetic languages. Aside from this factor, there are other socio-cultural differences between countries that need to be accounted for.

For example, Finland is often referred to as a country where children who start school later acquire literacy skills with great success. Indeed, a large proportion of children (about a third) are on their way to reading when they start the first year of primary school, and about three-quarters of all students can read sentences by the end of their first year at school. However, while formal schooling in Finland does start later than in Australia, there are also high rates of attendance at Finnish preschools and day care, at which children are exposed to language, print and literacy. The high literacy levels are therefore partly due to more/better early childhood education, partly due to the shallower orthography (and consequent ease of learning to read and write), partly due to the more literate society, and partly due to the socio-demographically and ethnically homogeneous population (with less diversity in home language). These are all confounding factors, which make it difficult to compare like with like. The first year of school in Finland is not like the first year of school in Australia or England or America. (See *this article* for more details and references.)

When should reading instruction begin?

Cognitive development

Another factor worth considering when thinking about the optimal time to start school is whether there are certain sensitive cognitive periods or neurodevelopmental windows for learning to read. We know that such periods do exist for learning to use language more generally (e.g., through speech). However, there is necessarily a difference between learning to speak/understand and learning to read/write; the reason being that human beings have evolved to use spoken language – but not written language – in a spontaneous way. When we learn to read, we draw on existing areas of the brain (including those that are involved in spoken language and those that are involved in object recognition) to adapt to an activity that isn't biologically 'natural'. This reorganisation intensifies around when we start formal schooling (*Dehaene, 2013*).

The brain's ability to reorganise itself flexibly reduces over time. We know this because children with injuries to areas of the brain that typically develop as 'reading centres' can adapt to use different parts of the brain instead (*Cohen et al., 2004*), whereas adults with the same sorts of injuries find it very difficult (*Braga et al., 2017*; *Dehaene et al., 2015*). As far as we know, there is no specific upper age limit at which becoming literate is especially hard due to limited brain plasticity. Generally speaking though, it's something that's learned most easily when young.

Other factors

Beyond this consideration, there are some other factors to consider when deciding whether it is best for children to start learning to read at age five vs. seven.

- Future considerations for homeschooling parents: Students might need/want to go to school at some point and, unless they make rapid progress with reading after starting later (which we can't be sure of), they will be behind their same-age peers.

- Intervention: Any reading difficulties will be spotted later and therefore addressed later.

- Opportunity cost: If reading instruction starts earlier, students could be reading sooner, with all the educational benefits and pleasure that reading brings.

Finally, and in relation to that third dot point, it's worth noting that children's reading ability significantly predicts how much they choose to read (*van Bergen et al., 2018*). This finding provides evidence to counter the argument that explicitly teaching reading leads the student to develop a disinclination to read for pleasure. On the contrary, knowing how to read unlocks access to texts that they will be able to read (and choose) for themselves. Our view is that the sooner this happens, the better.

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Children's reading ability significantly predicts how much they choose to read. This finding provides evidence to counter the argument that explicitly teaching reading leads the student to develop a disinclination to read for pleasure.

Groundhog day for reading instruction

Jennifer Buckingham

There are few things more disheartening in my work life than having to spend precious time unpicking and rebutting the destructive work of high status academics in elite institutions in the hope that it won't undo years of hard-won progress toward better reading instruction and outcomes.

The latest example is a paper by Professor Dominic Wyse and Professor Alice Bradbury. Wyse and Bradbury are from the Institute of Education, University College London. Wyse and Bradbury have written a paper called '*Reading wars or reading reconciliation: A critical examination of robust research*', published in Review of Education (2021) and described in a report in *The Guardian* as a 'landmark study'.

It is not a landmark study. It's groundhog day – another paper in a long line of studies and reports that try to prove that synthetic phonics is ineffective.

This is not the first time that I have written about work of a questionable standard from UCL's Institute of Education (IoE). In 2019, researchers from the IoE published a study purporting to show extremely large, long-term benefits of participation in *Reading Recovery*. In reality, the study deliberately excluded an entire inconvenient group of students whose results undermined this conclusion, without declaring this omission of data in the published reports. When the methodological parlour trick was *revealed*, the people involved did not deny it was the truth. What happened to them and the report in the aftermath? Nothing. Everyone just carried on like it had never happened and Reading Recovery carries on unscathed.

It is therefore with a sense of resignation that I am going to nevertheless go to the effort of pointing out the critical problems with Wyse and Bradbury (2021). A number of others (*Greg Ashman*, *Julia Carroll*, *Kathy Rastle*, *Michael Tidd*, *Rhona Johnston*) have also written excellent critiques that pick up similar issues as well as others.

These are the main flaws in Wyse and Bradbury (2021) as I see them.

One: The selective review of literature
First, it is hard to imagine how the authors can justify not referring to these highly relevant papers:

1   *Machin et al. (2018)*

2   *Stainthorp (2020)*

3   *Double et al. (2019)*

There are probably some others that I have temporarily forgotten, but these three outstanding papers are directly relevant to the topic of Wyse and Bradbury's paper.

Stainthorp (2020) is literally about the impact of literacy policies in England over the time period in question. It is published in the same issue of the same journal as another paper cited by Wyse and Bradbury (*Solity, 2020* – which is also very good, by the way). However, *Stainthorp (2020)*, *Machin et al. (2018)* and *Double et al. (2019)* all come to the conclusion that synthetic phonics has had an overall positive impact on reading outcomes in England.

To add insult to injury, Wyse and Bradbury give great credence to the work of Jeffrey Bowers, whose position on phonics instruction is in complete opposition to the rest of the scientific reading research community, and who admits he "is not so familiar with PA [phonemic awareness] research or practice". Bowers is not Galileo; he just gets it wrong on phonics. Wyse and Bradbury mention the critique of Bowers' work by *Fletcher et al. (2020)* but disregard it. I also wrote an article published in the same journal as *Stainthorp (2020)*. You guessed it: I came to the conclusion that the evidence supports systematic, synthetic phonics.

Second, the selection of studies for the 'systematic qualitative meta-synthesis' needs to be brought to

light. The studies deemed worthy of providing useful evidence about synthetic phonics came down to just eight in the final selection. The studies were drawn only from reviews by *Bowers (2020)* and/or *Torgerson (2019)*, putting a lot of faith in these authors. Wyse and Bradbury further refined the list by excluding any study that did not include a measure of reading comprehension. Their rationale is that the ultimate goal of reading instruction is comprehension so it is the only measure worth knowing. However, this ignores two important points: distal measures will always be weaker than proximal measures. Yes, if students can decode, they are more likely to be able to comprehend but there are other factors that mediate the relationship and these variables are often omitted in analyses. In addition, reading comprehension measures are enormously variable and unreliable, especially among young children. Depending entirely on reading comprehension measures is not a sound decision but, even so, many studies of reading programs that include phonics find improvements in comprehension.

Due to the very narrow (and, dare I say, not very systematic) method of selecting studies to review, one of

the most important, and certainly most influential, studies of synthetic phonics instruction was left out – *the 'Clackmannanshire' study* in Scotland. It meets all the criteria set by Wyse and Bradbury: "longitudinal design, sample of typically developing, readers, and reading comprehension measure" (p. 30). You guessed it again: the Clackmannanshire study found resounding positive results in favour of synthetic phonics instruction.

Two: The inconsistencies in the arguments
It is naïve to think that if something is in a national education policy document, that is what all teachers do.

Policy does not equal practice. We know this from the Year 1 Phonics Screening Check. Despite synthetic phonics having been in the literacy policy since 2007, in the first national implementation of the Year 1 Phonics Check in 2012, only 58% of students achieved the expected score. In subsequent years, when more teachers actually started teaching phonics effectively, the percentages of children achieving at or above the benchmark Year 1 phonics score increased steadily.

Wyse and Bradbury's own survey proves that policy does not equal

practice. Even though synthetic phonics is mandated policy, and the Wyse and Bradbury paper seems to make the case that synthetic phonics is the scourge of English society, only 66% of Reception and Year 1 teachers said that synthetic phonics is the main approach they use to teach phonics.

The paper says the 634 survey participants were recruited "via the network of affiliates of the authors' research centre, and the networks of the affiliates, and via social media" (p. 31) but doesn't attempt to demonstrate that they are a representative sample, so it is hard to know how much confidence to put in these findings, but the fact remains that Wyse and Bradbury's own data do not support their contention.

Further weakening the findings, Wyse and Bradbury change the survey question in their conclusions to be all-encompassing. In the body of the paper, the survey question is given as "How would you describe your main approach to teaching phonics?". In the conclusion, they state that "The findings from the survey reported in this paper showed that synthetic phonics first and foremost is the dominant approach to teaching *reading* in England". (My emphasis.) If one in three teachers say they are not even using synthetic phonics as their main approach to teaching phonics, it's a giant leap to say it's the dominant approach to teaching reading.

Three: They don't seem to know what synthetic phonics is

There are numerous points throughout Wyse and Bradbury (2021) where I could take issue with the characterisation of synthetic phonics. Skipping to the point, the main problem is that they don't acknowledge that it has never been advocated anywhere, in any policy document, or in any report or research paper, that synthetic phonics should be done in a meaning vacuum. Everyone who advocates for the use of synthetic phonics based on scientific research takes great pains to emphasise this.

The *Rose report*, which kickstarted the synthetic phonics implementation in England, could not have been

clearer, saying:

> *In sum, distinguishing the key features associated with word recognition and focusing upon what this means for the teaching of phonic work does not diminish the equal, and eventually greater, importance of developing language comprehension. This is because phonic work should be time limited, whereas work on comprehension continues throughout life. Language comprehension, developed, for example, through discourse and a wide range of good fiction and non-fiction, discussing characters, story content, and interesting events, is wholly compatible with and dependent upon introducing a systematic programme of high quality phonic work.* (*Rose, 2006, p. 39*)

Sir Jim Rose, with the patience and civility of a saint, has repeated and expanded on this in various eloquent ways on countless occasions.

Yet, throughout the paper, synthetic phonics is portrayed as being about something other than reading, as though being able to accurately read words gets in the way of real reading. Elsewhere in the paper, though, Wyse and Bradbury say, "there remains no doubt that phonics teaching in general is one important component in the teaching of reading" (p. 41), but confusingly "the research certainly does not suggest the complete exclusion of whole language teaching".

They seem to think that these two approaches are reconcilable, whereas phonics instruction is anathema to the philosophy and practice of whole language. Whole language does not mean including a variety of texts and literature in reading instruction. Everyone agrees that is good. Whole language is an ideology and philosophy that unambiguously eschews explicit teaching of the alphabetic code. You can't just take a little from Column

Throughout the paper, synthetic phonics is portrayed as being about something other than reading, as though being able to accurately read words gets in the way of real reading.

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A and a little from Column B call it 'contextualised teaching of reading' and claim that it's evidence-based (p. 42). That's the sort of thing that has led to our current rates of entrenched illiteracy.

Perhaps the strongest indication that Wyse and Bradbury don't have a good understanding of synthetic phonics is the way they describe the intervention used in studies by Vadasy and Sanders (2012):

> Students assigned to treatment received individual systematic and explicit phonics tutoring instruction in English, which included letter-sound correspondences, phonemic decoding, spelling, and assisted oral reading practice in decodable texts. … In a typical tutoring session, paraeducators spent 20 min on phonics activities and 10 min scaffolding students' oral reading practice in decodable texts. *(Vadasy and Sanders, 2012, p. 990)*

This description of instruction is straight-down-the-line synthetic phonics. However, according to Wyse and Bradbury, "These interventions are best described as balanced instruction orientation" (p. 36). This misconstrual of what is the central plank of the paper inserts a big crack in its credibility.

Four: The muddled analysis of international assessments and curricula

A few key points:

- Comparisons of PISA and PIRLS rankings are meaningless. The number of countries participating in these assessments change with each cycle, so a country's ranking can theoretically go down even if its scores stay the same or even improve. Nonetheless, research by *Double et al. (2019)* (not cited in the Wyse and Bradbury paper) found that performance on the Year 1 Phonics Check is a strong predictor of PIRLS performance.

- Attempts to draw a straight line between the introduction of early reading policies and national average scores on international assessments are inevitably tenuous. Wyse and Bradbury admit that there are positive correlations between PIRLS performance and periods in which there was a policy emphasis on phonics (p. 25). But they argue that PISA is a more valid source for their purposes because it has a longer time span, which is debatable. Phonics instruction policies affecting Reception and Year 1 will only have a discernible flow-on effect to PISA scores ten years later if a) phonics instruction is high quality, and b) the broader program of literacy teaching both in Reception and Year 1, and in subsequent years, is also of high quality. Good synthetic phonics instruction will get more children out of the blocks than would have been the case otherwise (in Kareem Weaver's great metaphor) but it can't guarantee they'll finish the race, especially if its a marathon. Even if we did think PISA scores at age 15 were a fair test of synthetic phonics instruction at age 5, we would have to wait until at least

PISA 2024 because that will be the first cohort of students who performed well in the Year 1 Phonics Check, and who we can more reasonably assume have benefited from good synthetic phonics instruction.

- Wyse and Bradbury provide inconsistent interpretations of the research. In the discussion and conclusions of the paper, they say: "Our analyses of the PISA data suggest that teaching reading in England has been less successful since the introduction of more emphasis on synthetic phonics" (p. 43), but in the body of the paper they state "The PISA assessments and their reports provide an important international context for the reading debates, and a wealth of data for further analyses and, as we have shown, some correlations suggest an advantage for whole language orientation to the teaching of reading, *but in the end they are not a sufficient way of determining which approaches to the teaching of phonics and reading are most effective in a curriculum*" (my emphasis) (p. 28). Which is it?

- Trivial but irksome mistake: "Australia has not reported state level outcomes in PISA or PIRLS." (p. 13). Not true: see results from *PISA 2018* and *PIRLS 2016*.

- For a much better analysis of the relationship between phonics instruction and England's national and international test scores, see *Stainthorp (2020)*, some of which is summarised *here* if you can't access it. See also the insightful policy analysis by *Tim Mills*.

Hopefully, the Wyse and Bradley paper will not cause too much damage and disruption to the growing adoption of synthetic phonics as part of evidence-based reading instruction that is leading to better reading outcomes in England, Australia and elsewhere.

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Five ways to ensure your teaching of reading is effective

Christopher Such

Teaching children to read is complex. There are many things that schools need to get right for their pupils to flourish as readers. However, from observations in schools and discussions with fellow professionals, it is my belief that there are certain elements of reading teaching that are frequently overlooked despite their importance.

Here are five questions that deserve more consideration than they are currently afforded:

1. How is phonics monitored?
Every primary school in England is required to teach phonics systematically. It goes without saying that if phonics is not taught well, then children's reading will suffer. However, the extent to which children's phonics progress is monitored through Year 2 and beyond varies dramatically between schools. Often, even those children that pass the Phonics Screening Check return to school in Year 2 having forgotten much of the learning content experienced just a few months earlier. In response, schools should ensure that they can explain where every student is on their phonics journey and have systematic phonics interventions in place for those that still struggle despite thorough, responsive phonics teaching, be they in Year 2 or Year 6.

2. How is reading fluency taught and assessed?
There are several reasons why children in Upper Key Stage 2 might struggle to comprehend what they have read, and chief among these reasons is slow decoding that prevents understanding (*National Reading Panel, 2000*). [Editor's note: 'Upper Key Stage 2' refers to Years 5 and 6 in the English school system.]

There is a substantial body of evidence to suggest that repeated oral reading of short texts that are towards the upper limits of children's current reading ability can support children's development of the components of fluency, which are essential to reading comprehension[1]. Nevertheless, this crucial area is too often neglected in primary schools. In Year 2 and Lower Key Stage 2, fluency practice should be a major component of reading instruction, either as standalone lessons or as a regular part of reading sessions (see *Such, 2019*, for more information on fluency practice). [Editor's note: 'Lower Key Stage 2' refers to Years 3 and 4 in the English school system.] Either way, it should never be dissociated from the ultimate purpose of reading, and well-chosen texts should ensure that the comprehension undertaken during fluency practice is valuable on its own terms (*Pikulski & Chard, 2005*).

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[1]These components of reading fluency can be described as accuracy, automaticity and prosody. Prosody is concerned with the tone, intonation, stress and rhythm of speech – in this case the idea that these allow oral reading to sound natural and comfortable, akin to spoken language.

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Fluency should also be assessed to allow timely responses to the needs of individual children and classes. Tests of reading fluency such as *DIBELS assessments*, while something of a blunt instrument, are useful when used in conjunction with teacher judgements, which give context to results.

3. How much decoding do children do each week?

This is arguably the most important and overlooked question one can ask about a school's reading instruction. It may seem prosaic, but the process of learning to read – in particular the development of rapid word recognition – can be considered as statistical (*Seidenberg, 2017*); our brains are pattern-spotting machines, and we rely on vast quantities of information to strengthen and hone our command of the patterns in the English language.

This means it is essential that children spend lots of time meeting new text every school day, increasing their reading 'mileage'. You might be thinking, Isn't this obvious? Maybe it is, but this doesn't stop some children spending as little as 10 or 20 minutes each week processing text while children in similar schools do several times as much. While children's fluency is still developing, whole-class reading can ensure that reading mileage is prioritised. (I recommend children and adults take turns to read aloud; rulers and quick word checks can be used to ensure that children are focusing and keeping pace, and struggling readers can explore the text in advance during interventions to support this.)

Once fluency is relatively established (100+ words per minute oral reading speed with high accuracy), silent reading followed by text-dependent questions is the most efficient method for children to meet new text.

4. How is vocabulary development supported?

Reading comprehension and vocabulary development reinforce one another. Plenty of time spent reading is essential, but vocabulary development can be best supported in two ways – by teaching children particularly useful words and by revealing to them

> *This means it is essential that children spend lots of time meeting new text every school day, increasing their reading 'mileage'.*

the etymological and morphological structure of the English language. The first of these requires a rationale for which words to choose, and *Beck, McKeown and Kucan (2013)* attempt to provide one by considering vocabulary as existing in three tiers. Crucially, what they define as 'Tier 2' words are those that are rare in day-to-day informal language, but are used across the curriculum (i.e., they are not specific to particular subjects or contexts). By combining the concept of Tier 2 vocabulary with the most common words in the English language, it is possible to compile a list of words that can be introduced to children, either in reading sessions, standalone vocabulary sessions or through 'word-of-the-day' style teaching. (For just such a list – or guidance on how to compile one – see *here*).

In addition, a large amount of the morphological and etymological structure of English can be revealed to children by teaching them key Latin and Greek root words (e.g., acro-, meta-) and by highlighting key morphemes that modify English words (e.g., un-, dis-). While this teaching of vocabulary might seem detached from context, trust me when I say that the context will find you; teach children a Tier 2 word like 'influence' or a morpheme like 'dis', and you won't

have to wait long for children to notice these in texts and class discussions, much to the benefit of their reading.

Ideally, however, Tier 2 vocabulary, Latin and Greek root words and morphological awareness can, and should, be integrated into your wider school curriculum, though this is naturally a task that takes a significant amount of time and thought, so consider teaching discrete vocabulary lessons in the meantime.

5. Does the rest of the curriculum build children's knowledge of the world?

Reading comprehension relies on background knowledge (*Kendeou & van den Broek, 2007*). Put simply, high-quality teaching of science, history, geography, etc. *is* teaching reading. A curriculum that is coherently structured allows the knowledge children gain to become part of a rich network of understanding that they can use in their reading and beyond.

Many elements of the teaching of reading are not included above, not least the power of reading aloud to children. What I have described in this article are just the elements that are most frequently overlooked, despite their importance. Whether you're a head teacher, a reading coordinator or a class teacher, thinking carefully about the five questions above is a considerable step towards ensuring your students have the best chance of learning to read.

This article originally appeared on the author's blog, Primary Colour.

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Reading is a human right

Greg Ashman

In 1961, the *Ontario Human Rights Commission* was formed to "prevent discrimination and to promote and advance human rights" in the Canadian province. It is with this remit that, at the end of February, the Commission *released its findings* of its Right to Read inquiry.

The inquiry report is vast and cannot be downloaded as a pdf. Instead, we have to navigate through a number of different headings. Heroically, I still managed to find *a reference* to my own book, *The Power of Explicit Teaching and Direct Instruction* – the ego finds a way. However, for most people, the still substantial *executive summary* should be enough to give a flavour of the findings.

Perhaps of most interest to readers of this article are the findings and recommendations on curriculum and instruction. For the first time, we have something approaching a clear description of that slipperiest of eels – balanced literacy:

> *Ontario's Kindergarten Program, 2016 and Grades 1–8 Language curriculum, related Ministry guides for reading instruction, board resources, and teacher education provided by Ontario faculties of education emphasize teaching early reading skills using cueing systems for word solving and balanced literacy. Cueing systems encourage students to predict or guess words using cues or clues based on context or prior knowledge …*

> *Cueing systems and balanced literacy for word reading are consistent with a whole language philosophy which assumes that children will "discover" how to read through exposure to spoken and written language. In these approaches, students receive little or no direct, systematic instruction in the building blocks of written language such as phonemic awareness and phonics and how to use these skills to decode words.*

Such an approach is, of course, a disaster – one most keenly felt by disadvantaged students and those with specific learning difficulties. The 'cues' that children are taught to use are compensation strategies typical of poor readers and are woeful for decoding complex text. The report makes plain that an alternative approach, structured literacy, is more effective:

> *The best way for students to gain word-reading skills, beginning in Kindergarten, is with explicit and systematic instruction in phonemic awareness, phonics, and word-level decoding, learning grapheme-phoneme correspondences and how to use these to decode words, including blending sounds and segmenting words into sounds to read words and segmenting words into sounds*

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to write words. *Explicit instruction includes more advanced skills as children progress, such as studying word structure and patterns (for example prefixes, word roots, suffixes). This explicit, systematic approach based on reading science is also referred to as structured literacy.*

You may wonder what's new here. The evidence has been clear on the advantages of structured, code-based reading instruction for at least the last 20 years and yet school systems and education faculties have been ignoring it, as the report makes plain:

The inquiry found that pre-service teacher education courses and in-service Additional Qualifications (AQ) courses in reading … focus on ineffective cueing systems and balanced literacy approaches (and discovery and play-based approaches in courses about Kindergarten). There is little time or instruction on making sure pre-service teachers

understand general language and early reading development.

In the face of such intransigence, what function will a reiteration of this evidence serve?

The difference is that this new report comes from a human rights perspective. Bizarrely, phonics denialists still see themselves as the virtuous ones. They do not realise they are the educational equivalent of anti-vaxxers. They assume that any criticism of Balanced Literacy – or whatever it is called now – comes from nasty right-wingers who have evil plans to wring all the joy out of childhood, and they obtain some support for this view from the general lack of interest in the issue from figures on the left of politics and its championing by figures on the right. As long as misguided children's authors can frame the issue politically, this perspective will persist.

And yet what could be more progressive than ensuring every child can read? Reading is a critical tool for acting in the contemporary world. Deny it to the disadvantaged and you reduce their agency. Despite *my differences* with the views of Paulo Freire, he saw this clearly. To further his aim of political change, he devoted his life to improving the literacy of peasants.

And we can forgive Freire some of his mistakes. When he was teaching in the 1960s, we did not have the mass of evidence available today.

Has the Ontario report got everything right? Maybe not. I was concerned by references to Universal Design for Learning, *an educational philosophy in search of an evidence base*, but I was cheered to see a call for evidence-based criteria for the deployment of accommodations:

Accommodations (and modifications to curriculum expectations) should not be used as a substitute for teaching students to read. Accommodations should always be provided along with evidence-based curriculum and reading interventions.

We should apply that principle in Australia.

So, I welcome the report and I hope that it is able to achieve what other reports have failed to achieve – lasting and substantive change to the way early reading is taught.

This article originally appeared on the author's blog, Filling the Pail.

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My unexpected journey

In the pre-COVID days, when I did face-to-face training, I would usually ask folks if they remembered learning to read. 99.99% of them reported no recollection of this and could not describe how it happened, or indeed how they now do it so efficiently. I think I must buck the trend on this because I actually do remember my journey to being a reader and it is not quite what you might imagine.

Ann Sullivan

There are a few things you need to know about me before you read this.

Firstly, I am 59 (that places me as being in an English school as a pupil, rather than a teacher, in the late 1960s to early 1980s) and being exposed to the 'look-say' 'whole word' approach to initial instruction in reading within the context of a 'whole language' approach. Secondly, I was born into a lovely family but one in which no one read books or magazines. Needless to say, I wasn't surrounded by a walled library as a child. I had two books: *365 Bedtime Stories* and a *Teddy Edward Annual*. I don't recall my parents having any books of their own at all.

So now I've set the scene, let's get to the first event in my reading story. I am sitting on the floor in my first infant class (age five) and my teacher, Miss Day, is holding up words on cards in the shape of fish. She shows us the word, says it and we say it back – next card! 'Rinse and repeat' is, I believe, the trendy phrase people use at the moment and it fits right in here. My mother told me I was the first in my class to be able to read all the words on the fish on my own and so I was the first one to be allowed to bring home a reading book. My older sister had 'difficulties' with reading, so they were flabbergasted when I sat down with the book and read it from cover to cover. They were thrilled … Phew, job done!

My next reading memory is of being sent to Mrs Green, the headmistress, to read to her (I guess I am 5 or 6). This was presumably a big deal at the time as I remember it very vividly. There were four of us readers in the room, one at each corner of the enormous desk. We all opened our books and set off reading our completely different stories in glorious cacophony. Mine was about an elephant, in case you're interested, but I can't recall any more details. Mrs Green was absolutely delighted. I was absolutely horrified. The massive knot of fear in my stomach was there for two reasons. Firstly, because I was extremely shy and didn't want to draw any attention to myself in any way; this was my own personal version of torture. Secondly, I knew that I was saying all the right words, but in order to achieve that, I wasn't following the meaning at all – and I most certainly wasn't reading with any expression. From then on, I lived on the edge of my nerves, constantly worrying if I would be randomly asked questions about what I was reading and would be caught out, unable to answer. I started to dislike this reading thing.

Around this time, I looked around and realised that my fellow classmates were also getting through the fish, had their own books and some were actually

reading 'better than me'. I became aware that the words were getting longer and there were more of them on the page. When I saw words I'd never seen before I had nothing in the toolkit and just couldn't read them. I began to dislike reading even more – it was hard work and I didn't think I was very good at it. I avoided it if I could.

At some point around this time (I guess about 7, maybe 8), I took a long hard look at things and realised that I needed to do something about this situation. So I took a conscious decision to try to work it out. I was lucky to have a logical brain (to this day I love a good puzzle and, despite the evidence, cling to the idea that a daily sudoku will keep me mentally alert into my 90s) and so I unlocked the code. Well, let's clarify that … I very, very slowly partially unlocked the code enough to be able to use it successfully. I realised that there was a connection between these 'letter things' and the sounds in spoken words. Then, I began to unpick the alphabetic correspondences, realising that some letters 'work together' in this business. I also worked out that I had to push the sounds together to make meaningful words. I worked out that longer words can be split up into chunks to make them easier to read, chunk by chunk, and from this I was able to read more complex words. I then found I could read longer texts and, more importantly, I could understand what I was reading. I still didn't like it though, reading that is, and I now actively avoided it. My first choice of entertainment was not to dive into a good book.

But I did love stories. My next memory is of Mr West (Year 5 – Junior 3 back in the day) who had a tennis shoe he called Hermes which he launched at those who weren't listening. I digress, sorry, happy days. Mr West read Alan Garner's book *The Owl Service* out to the class, enticingly serialised at the end of each day. I was enthralled. It triggered my ongoing love of the fantasy genre and I wish, dear reader, I could tell you that it also triggered an appetite for reading heaps of books, but it didn't. I still avoided it, if I could.

I got into grammar school at 11, ironically, mostly on the strength of being able to read, understand and discuss (on paper) what I had read in a range of subjects. In the rarefied atmosphere of a 1970s all-girls grammar school, I was introduced to Latin and with this the final piece of the reading puzzle, etymology, was slotted into place … prosody came scurrying up behind it all. By now I could read and understand practically anything. We read Shakespeare, Austen, Dickens, Golding and Keats. I achieved an A grade in my English Language and English Literature O levels* and can still dredge up quotes to answer obscure questions on University Challenge on Julius Caesar. Surely, surely this transformed me into a lifelong reader? Nope. I still didn't enjoy reading and I did not choose to read for pleasure or entertainment. I told myself I had a leaning towards the sciences (I did a Zoology degree at university) and just preferred to read technical works – still true to this day. Interestingly, I still love stories though.

I went into primary teaching and confidently expected to learn how to teach children to read during my PGCE year in 1988. After all, this is one of the most important aspects of the job, surely? In induction week, we were given a timetable of lessons which we attended when we weren't on school placement. One of them was 'reading'. At the start of

* ancient qualifications circa. the Middle Ages

our first lesson an absolutely lovely but rather clueless chap stood up and said, "No one really knows how children learn to read so when you get into a school have a look at what everyone else is doing and copy that." We then spent the remainder of the year working on *The Iron Man*. You name it, we did it. We read it, practised voices, acted it out, made puppets, did junk modelling, only just curbing our activities short of recreating it in the medium of interpretive dance. At the end of the year, I was none the wiser about how children learn to read but I did consider myself somewhat of an expert on the Ted Hughes classic and pasta art.

Fast forward 10 years and in 1998 I discovered the work of Diane McGuinness and trained in linguistic phonics in early 2000. For the very first time I could see how to teach a child to read (and spell incidentally) and also I could see how I had taught myself to read. In fact, I was so struck by this that I rather sheepishly privately shared my story with one of the trainers on the course. Even in that context disclosing that I ever had difficulties with reading was gut-wrenching and shameful – as is, in fact, typing these words to share with the world! But, the lightbulb was switched on and McGuinness has been my guiding light ever since.

So, years later, I can see what was going on for my younger self. I have a good visual memory and that accounts for my initial success; I remembered the first words 'as a visual whole' relatively easily. But when the words got more complicated and there were more of them, my reading stalled – suddenly and terrifyingly. I just couldn't stuff any more whole words in. I am extremely fortunate. I also I have the inherent capacity to see patterns and relationships and a desire to get better. I worked it out, just as many other children have had to do and possibly still do if the instruction isn't right. Mercifully, I wasn't a reading casualty in the sense that I am, and have been for many years, a confident and competent reader, although there but for the grace etc.

The final question is, after all my experiences, do I now read for pleasure? Did my experience of 'whole word'/'whole language' teaching result

in a lifelong passion for literature? Sadly, this story doesn't have a happy ending. The answer is no. My experience of living on the edge of failure for my formative years and the anxiety associated with it put me off choosing literature as my default entertainment or solace. In this sense I am a reading casualty.

I believe that if I had been taught from the get-go how written words work in a structured way (phonics) then the ending of my story would've been different. For the majority of children, the time needed to unpick the code (i.e., be explicitly taught it) is relatively short and in a child's perception 'over in a flash'. Some people say that phonics is dry and dull. Well, anything taught badly can be boring and off-putting. The onus is on the school to use a good quality, well-resourced systematic, synthetic phonics program (I would also suggest linguistic phonics too) and on the teacher to make this exciting and engaging with a good range of interesting materials and activities. In the 21st century there are ways to present things to young children that Miss Day could never have imagined back in 1967. For those who say phonics 'destroys' the love of reading, I say it is much, much less painful than years of anxiety whilst working it out for yourself... or not, of course.

Please note: Names have been changed to protect the innocent.

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This article originally appeared on the author's blog, [Phonics for Pupils with Special Education Needs](#).

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I believe that if I had been taught from the get-go how written words work in a structured way (phonics), then the ending of my story would've been different.

Leaving the Balanced Literacy habit behind: A theory of change

Pamela Snow

Have you ever tried to change some aspect of your behaviour? To eat a healthier diet and/or lose weight? To exercise more? To have a better sleep pattern? To spend less time on Wordle and Wordle knock-off sites? All of these, the last one in particular, are difficult to do. Anyone who has studied biology will know that the forces in favour of _homeostasis_ are strong, and if you've studied any psychology (or just lived an average life), you will know that the forces that work against behaviour change are also strong.

So, against that background of knowing how difficult change is to undertake and sustain, it is remarkable to see the level of commitment to change that is occurring in classrooms right across the English-speaking world, when it comes to improving early years literacy instruction, so that children are set up for academic and life success.

This means moving away from a trusted, comfortable instruction approach that has the beguilingly reassuring descriptor 'Balanced Literacy'. Now when it comes to diet, sleep, exercise and maybe even Wordle exposure, balance is all fine and it's what we strive for. The word _balance_ was misappropriated, however, for reading instruction, and mischievously so, to confer false reassurance to teachers and parents that: "We've got this. Everything is there. It's fine. Yes, we do phonics, we just do it in context because reading is a meaning-based activity."

If you would like to understand more about why and how Balanced Literacy cashed in on the vacant but illusory '_golden mean_' space in reading instruction discourse but then failed to deliver, you can do so via links _here_ and _here_. In a nutshell, Balanced Literacy is poorly defined and promotes eclecticism; further, it is not premised on a theory of reading that is testable, reflecting its ancestry in Goodman's whole language, _reading-is-a-psycholinguistic-guessing-game_ casserole for classroom teachers.

So – the jig is up on Balanced Literacy; and teachers, literacy leaders, school principals, and in many cases, sector-level advisors, want to know how to support a change process towards a model and set of practices that ensures success for the overwhelming majority of students through mainstream, Tier 1 instruction. This means teaching reading in an explicit and structured way, from a position of strong teacher knowledge.

In this post, I draw on a well-known theory of change, _Prochaska and DiClemente's Stages of Change Model_, which is to behaviour change what the _Simple View of Reading_ is to early years reading instruction: a model that has been around since the 1980s, has been well-researched, and found to be robust under a wide range of real-world circumstances.

The Stages of Change Model was originally designed for use by clinicians working 1:1 with clients seeking to break entrenched behaviour patterns that
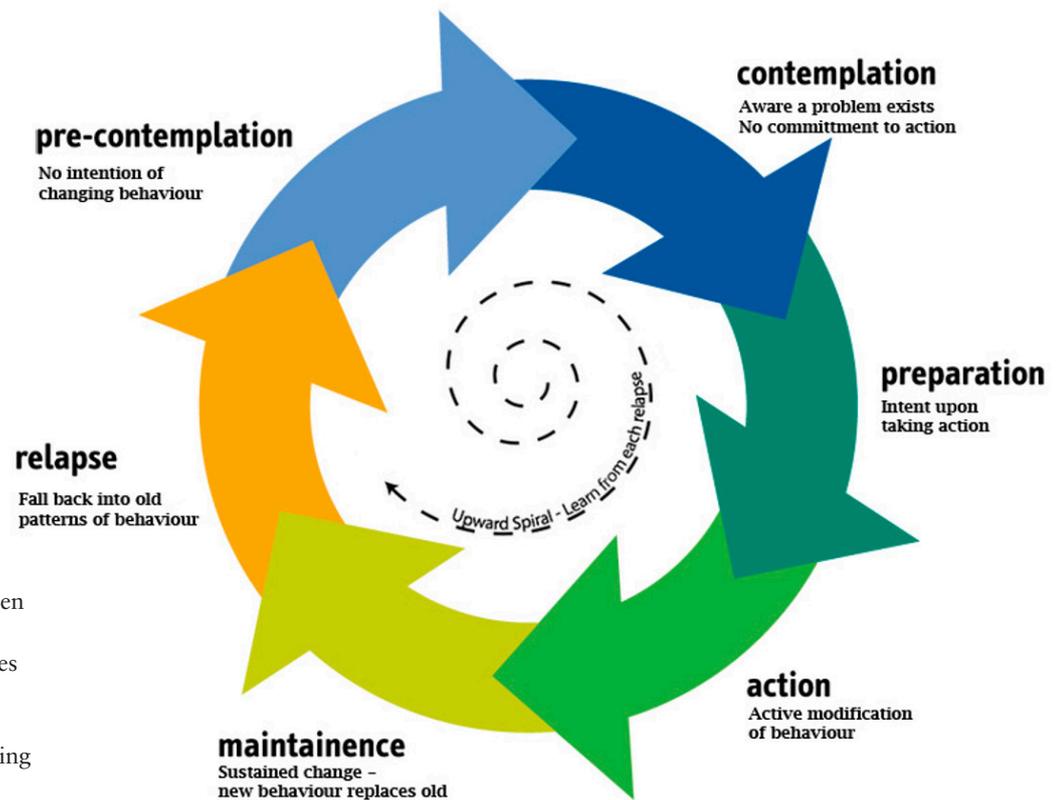
Transtheoretical Model of Change
Prochaska & DiClemente

have become dysfunctional. It has been successfully applied to a wide raft of behaviour challenges in recent decades and *also to organisational change*. I think it's worth a close look with respect to changing school-level reading instruction, because it helps us to understand that:

- Change is a process.

- Change is difficult to initiate.

- Change is difficult to sustain.

- There are identified points of vulnerability that increase the likelihood of lapse/relapse.

- Deliberate actions can be put in place to protect and sustain changes that have been made.

- If we stay the course on change, the general direction we move in is upwards.

An important feature of the Stages of Change Model is that it represents change as a cycle, not a set of linear steps. As such, any school could, at any time, in theory at least, move forwards or backwards in the cycle and will potentially revisit earlier phases in aspects of their work. As long as this is recognised and understood, changes can be protected, and appropriate actions can be put in place if lapses (or, less likely, but more seriously, relapses) occur.

As you can see in the figure above, another important feature of the Stages of Change Model is that the overall direction is up. Stay the course, pick yourself up after you fall off the horse, and get back on again, and in time, things will move in a positive direction,

in spite of some inevitable setbacks. The change will, in time, become the new normal.

In terms of language, some versions of the Stages of Change Model refer to 'lapses' and some to 'relapses'. I prefer to focus on lapses, as these are more likely in the school context than a full relapse to old Balanced Literacy ways. The language of 'lapses' is also more forgiving with respect to mistakes that will probably be made, as discussed further below.

Let's look at the stages identified in the model, which you can see illustrated in the figure above. I will consider each stage in turn, along with the challenges and opportunities it affords in moving away from Balanced Literacy.

As you will see, some challenges and opportunities turn up at multiple points in the change cycle. My musings on these reflect my interactions with literally thousands of teachers in the last couple of decades, as well as my current work in and with schools.

The jig is up on Balanced Literacy; and teachers, literacy leaders, school principals, and in many cases, sector-level advisors, want to know how to support a change process towards a model and set of practices that ensures success for the overwhelming majority of students through mainstream, Tier 1 instruction.

Leaving the Balanced Literacy habit behind: A theory of change

PRE-CONTEMPLATION –
Change is not on our agenda or the radar. We're happy as we are.

What's happening/challenges	Opportunities
The key risk for schools here is no upward growth in student achievement over time, regardless of the starting point. This risk applies to all schools, irrespective of their overall data, because all schools can improve. Students' outcomes are accepted as largely a result of postcode lotto, rather than being a consequence of instructional quality in the classroom. This risk is not symmetrical though; it applies more conspicuously at the under-performing end of the school spectrum. In the pre-contemplation stage, teacher knowledge concerning the nature of reading as a cognitive and linguistic process, as well as the patterns and intricacies found in the English writing system, will remain low and static, reflecting the unstated assumption that this information is neither necessary nor helpful. There may be a vague awareness that there's a vast 'other world' of knowledge out there about reading, and some moments of disquiet. In some cases, it probably just feels too overwhelming and any rocks that have been tentatively turned over are carefully replaced. I have referred *in a 2016 blog post* to the evidence on low teacher knowledge on how the writing system works in English, due to the devaluing of this knowledge currency in initial teacher education programs. This has shifted marginally, if at all in Australia since that blog post was written. Most worryingly of all, when schools stay in this space, they can unwittingly sustain a pernicious parent-blame meme that goes something like this: "If parents in this community cared more about their children's education, they would buy more books and spend more time reading to them in the preschool years. It's the parents' job to instil a love of reading, so when they get to school, children can catch on in the classroom." This position has unfortunately been reassuringly *propped up by views expressed by some children's authors*.	The pre-contemplative space is ripe for the entrance of a disruptor: a teacher, school leader, parent, or allied health professional who asks questions and initiates discussions (neither of which are always welcome) about student data and performance. This person suggests that other approaches exist that should be explored, but they may be initially ignored, ridiculed and/or frozen out. An important strategy here is to 'roll with resistance' rather than locking horns with it directly. Stay connected, keep the conversation going, and listen for clues as to what the real concerns are with respect to the prospect of change.

PREPARATION / CONTEMPLATION –
We've heard some other schools are making changes. We're interested but a bit anxious too.

What's happening/challenges	Opportunities
The naysayers can be quite vocal at this stage and by resisting change, can ensure that the school slots back into its pre-contemplative, all-is-well/we-can-live-with-our-data comfort zone. Sometimes schools dip their toe in the change waters and then quickly remove it, having managed to reassure themselves that they are actually OK. Sometimes schools don't move beyond contemplation and early preparation because the general conclusion is "this will be too hard", or they fall back on "parents in this school won't like it". Another risk that arises is the sunk-cost fallacy. "We've just spent a 5-figure sum on levelled predictable readers, so we can't change tack now." Sometimes teachers buy the rhetoric around explicit and structured teaching of the code being a sure way to kill children's love of reading. Sadly, nothing kills children's love of reading more efficiently than being unable to read. A dominant belief that systematic and explicit literacy instruction is only for 'Tier 2 children' can be an obstacle here. This view is espoused by some teachers, literacy leaders and in some corridors of power in policy circles. It flies in the face of the principles of *Response to Intervention* however, which is premised upon a strong Tier 1 and higher dose (duration, frequency, intensity) at Tiers 2 and 3, not different approaches.	Sometimes someone attends some particularly impactful professional learning and brings that back to colleagues for discussion. Being in this phase opens up new opportunities for discussions about pedagogy and also about student monitoring tools and processes. Teachers and schools in this stage become open to myth-busting conversations, e.g., busting the myth that explicit and systematic phonics teaching means that this is the only approach to early reading instruction that is used. In the contemplation phase, teachers and school leaders become open to conversations with critical friends and take opportunities to join communities of practice that promote structured, explicit literacy teaching. These barriers to change are readily countered through fact-checking, which is increasingly easy for disruptors and change champions to do because of ready access to communities of practice through Twitter and closed Facebook groups.

ACTION –
We're doing this. We are sick of the status quo and believe our students deserve better. We are going to make it happen.

What's happening/challenges	Opportunities
Sometimes, there is a temptation to move too quickly; to want it all happening tomorrow. This is understandable but hastening slowly is the name of the game. Teachers and literacy leaders will potentially receive conflicting advice at this stage and have to make some judgement calls for themselves, e.g., on whether or not to discard those sets of predictable levelled texts or to find a way of re-purposing them. Some staff may say '"yes" to change but in their hearts, they mean "no, not really, but I'll do the minimum I need to do, to look like I'm on board". Some staff are at risk of change fatigue because they have been teaching for decades and seen countless changes come and go. Why should they feel energised about this one? Staff turnover can be a threat to sustained change.	Remember the fable about the hare and the tortoise? It wasn't the sprinter who won the race, it was the consistent, determined slogger who stayed the course and crossed the line as the victor. Confer with/visit others in similar settings who are a little further down the road than you and can be a brains trust (and don't forget to pay this favour forward later, when your school is further advanced and can support colleagues starting the journey). This can be tricky to identify, but most leaders have a sense of who is truly on board and who is not. A culture of collaboration: team-teaching, classroom observations and discussion of video-recorded teaching segments helps to break down barriers to discussion of what is actually occurring in different classrooms (and may be aligning with patterns of inconsistency in student data). Agree on priorities for classroom change and then put professional learning, classroom coaching, and collaborative teaching arrangements in place around that. Remind yourselves at regular intervals what your strategic intent is so you can stay the course. Connecting with like-minded schools through communities of practice can be invaluable to guard against an early sense that this is all too hard. Others have walked this road before; walk in their footsteps to make your journey easier. In doing so, you help build the path for those who come behind you. These concerns need to be validated and discussed; left unaddressed, they can become invisible but pervasive barriers to effective change. Anecdotally, I hear of teachers deciding to stay in school because of the buzz created by the reading change journey; the stability that is afforded when turnover is reduced is invaluable. Turnover is inevitable, however, and recruiting for the knowledge and skills required for your refreshed approach will be important, as will be the orientation and early support provided to new staff. It should not be assumed that new staff will just 'catch on'.

MAINTENANCE –
OK, we've made these big changes over the last couple of years; now we need to sustain them

What's happening/challenges	Opportunities
As schools move from Action to Maintenance, there is often a growing realisation that while reading performance (specifically the efficient acquisition of text decoding skills) may have been the trigger for change, it is not the only aspect of literacy that requires attention. Focus moves to deeper knowledge and extended practice with respect to oral language, fluency, writing and spelling. Increasingly, there is interest in incorporating explicit teaching of morphology to support students' abilities to identify word families, for both vocabulary-building and developing spelling skills. There is also often a new-found appreciation for the concept of a content-rich curriculum, to support reading comprehension. In the Maintenance Phase, schools are often refining assessment and monitoring tools as they become more confident in their judgement concerning protocols that align with their new teaching methods. Many schools in this phase also turn their attention to the teaching of numeracy and other core aspects of the curriculum.	Here, staff become engaged with professional learning across the oral language and literacy spectrum, as well as professional learning concerning learning sciences and impactful pedagogies. Interest in *cognitive load theory* is common, as is interest in *explicit instruction*, *classroom seating arrangements* and their relationship to pedagogical aims, and *teaching a content-rich curriculum*. Maintenance is about maintaining the change process, not just about maintaining the changes that have been made. And the fire in the belly that sustains this process is the quest to shift the needle on children's life trajectories and enable more students to complete school and have access to the social and economic mainstream. Improved data is a pleasing validation of this, but I have never worked with teachers who see data as anything more than confirmation and validation of their path. They have their eyes on the grander goal of better lives for their students; lives that they will not experience if they do not become fully literate citizens.

Leaving the Balanced Literacy habit behind: A theory of change

LAPSES –
We've dropped the ball in some classrooms/curriculum areas and we're worried we will lose our gains.

What's happening/challenges	Opportunities
A lapse is a short-term and possibly circumscribed "Oops" in an area of reading instruction change that sees a reversion to old, Balanced Literacy ways, such as an early years teacher using Three Cueing (also known as _Multi-Cueing_, or in the UK, 'Searchlights'), even though the teaching team has explicitly and unanimously agreed to leave this approach behind.	Conversations about lapses need to be held in a 'no blame, no shame' way. Everyone needs to bring curiosity and a solution-focus to the table, so that a lapse is just a pit stop, and everyone is back on track again.
Where a lapse is identified (e.g., by a literacy coordinator), it can be discussed with respect to the rationale for change and corrected via coaching and reminders about the importance of fidelity to the approach decided by the team.	The answer to a lapse generally lies in a weak point in the Action Phase.
A relapse, however, would be more generalised than a lapse, and might entail an entire teaching team reverting to Three Cueing, or to their abandonment of decodable (phonically controlled) texts in favour of a return to predictable, levelled texts for beginning readers. A relapse is a more serious threat to the sustainability of change and can entail some re-orienting conversations about the rationale for change and need for it to be fully sustained. These conversations need to be initiated by leaders.	Go back and look at the challenges you faced in implementing change and audit these to see where a crack has opened up to allow some slippage back to the old way/s of doing things. Remember that for all of us, old ways of doing things are familiar and require less effort, even if we know they are not optimal and don't produce the best outcomes.
	Neither a lapse nor a relapse need be a fatal threat to the change journey.

The opportunities at every stage are vast, as described by Victorian principal _Sue Knight in her 'sliding doors moment'_ blog post concerning the journey away from Balanced Literacy.

It's been said that the price of peace is eternal vigilance, and the same could be said of sustaining change. 'Set and forget' is never the order of the day, as it will subtly undermine all that you have set out to achieve and contribute to the cancerous discourse of "Oh, we tried that, and it didn't work".

I will leave you with the sage words of Professor Dianne McGuinness, who was writing nearly 20 years ago, about the late Jeanne Chall's observations of classroom practice and instructional change in the 1960s (emphasis is mine):

> One of Chall's most important discoveries was that **teachers tend to be eclectic**. If teachers are asked, or decide to change to a new program, they do not abandon old activities and lessons from programs they enjoyed teaching or felt was important. Nor do they abandon their philosophies. This can create a situation where **elements from different programs with contradictory logics cancel each other out**, such as an emphasis on decoding and an emphasis on memorizing the shapes of words. This has profound implications for classroom research, because it means there will always be an overlap of different methods, depending on the teachers' training and on how many different methods they have been asked to teach. (McGuinness, 2004, p. 84)

This article originally appeared on the author's blog, The Snow Report.

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Struggle and the rote memorisation of facts

Greg Ashman

Humans are unique among species in our ability to learn from each other. Many animals can mimic, but we have taken learning from others to the level of a superpower. We have developed complex systems of communication to exchange ideas. Our children have an extended childhood in which they spend a large amount of time learning. Instead of starting from scratch, each individual can build on what has come before – which is why we are capable of such creative feats. No individual, no matter how talented, could start from zero and invent antibiotics, the internet or the feature film.

So, it seems weird to suggest we should not use this power – that we should leave kids to struggle and try to figure things out for themselves.

Nevertheless, it is a seductive idea – one we can trace directly from _Rousseau's Emile_ to _a recent article_ in _The New York Times_. This siren call has been drawing teachers and their students on to the rocks for at least 260 years.

Due to the fact that it doesn't work very well, learning through trial-and-error is an idea in constant need of a new justification. In _The New York Times_ piece, the justification amounts to an assertion that struggle is good because kids need a 'growth mindset' – they need to view themselves as able to learn rather than believe their capacity is fixed.

On its face, this justification is absurd. There is already enough struggle in learning complex concepts and skills such as algebra, balancing chemical equations or historical source analysis. Even when taught this content explicitly, with each element broken down and fully explained, most young people will find it hard – in such circumstances, they may well benefit from having a growth mindset.

It is not obvious why we should deliberately _increase_ the level of struggle and it's not obvious that if we did, it would _cause_ students to develop a growth mindset. These are hypotheses in need of evidence.

In fact, motivation for a subject and achievement in that subject _are closely linked_. So by deliberately making students struggle, we may instead cause them to become demotivated.

In _The New York Times_ article, completing worksheets of problems that students find too easy is presented as the only alternative to these struggle sessions. Perhaps this is a major problem in American schools – I don't know. However, the alternative I would propose is to explicitly teach challenging concepts.

In order to deal with the research that is presented in the article, we also need a way of describing task complexity that goes beyond 'easy' or 'hard'. In my field of research, we use 'element interactivity' – the number of interacting items a student must hold in their limited working memories in order to complete a task. Critically, this not only depends upon the task but

Struggle and the rote memorisation of facts
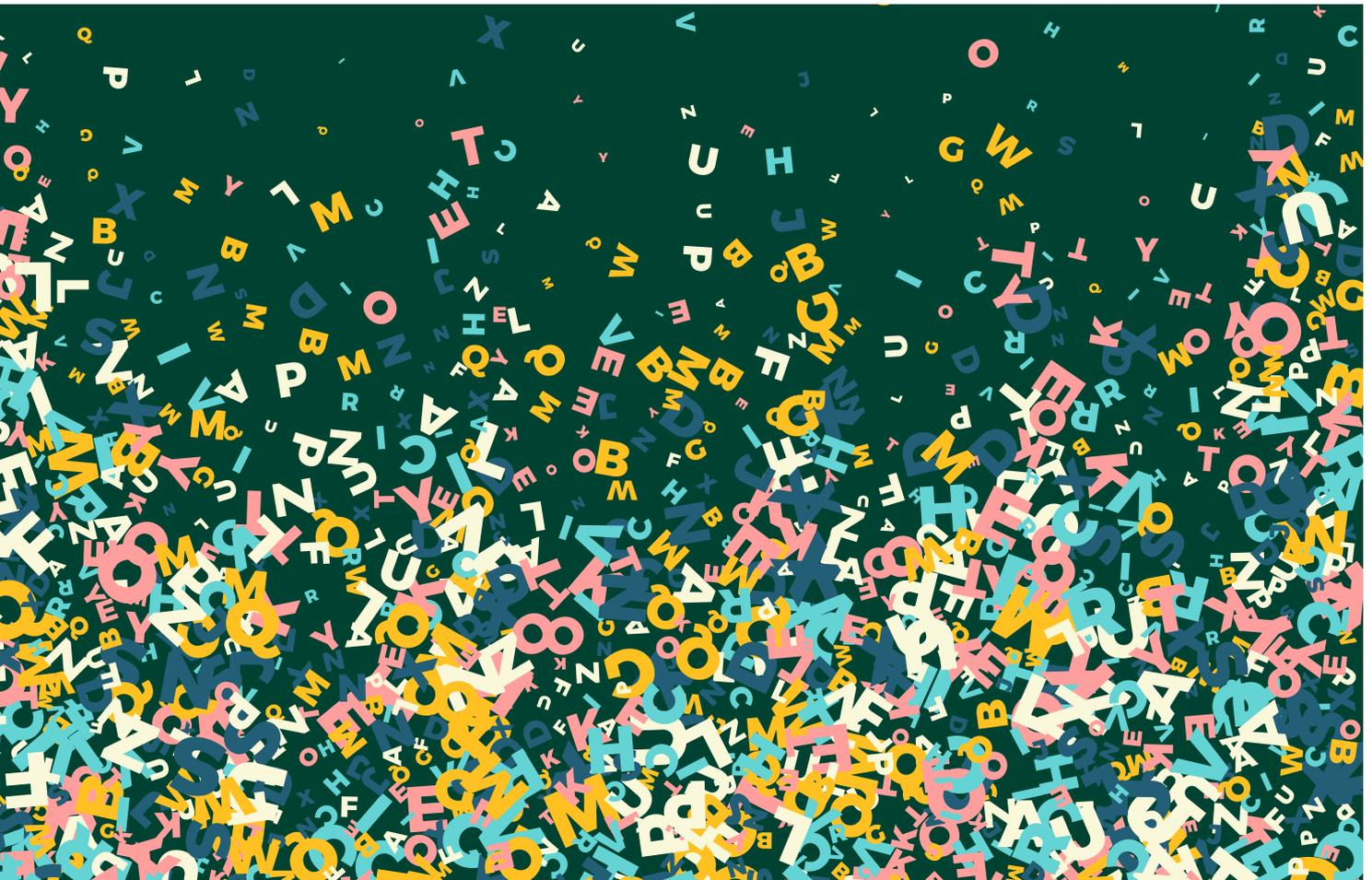
also what students have in long-term memory. If a student simply *knows* that 7 x 8 = 56, then that part of a maths problem does not need to be processed in working memory.

Some tasks, though challenging to master, are inherently low in element interactivity. For instance, learning the names of a list of capital cities or the dates of a series of battles can be done by processing just one item at a time. Other tasks, such as learning how to solve a class of algebra problems, are initially high in element interactivity, but this gradually reduces as students commit more of the process steps to long-term memory.

Many of the most significant concepts we want students to learn in school – how to write a paragraph, plan an argument, control variables in a science experiment, etc. – begin high in element interactivity.

The *repeated failure* of approaches such as problem-based learning, inquiry learning, project-based learning and so on – approaches that promise so much – can be accounted for by the fact that they raise element interactivity way above the limits that students'

working memories can handle. The *repeated success* of explicit teaching can be accounted for by the fact that it controls what items a student must pay attention to at any given moment and keeps the number of them within the limits of working memory.

Nevertheless, alternatives to explicit instruction *sometimes* seem to work well. Examples include the rote memorisation of items such as *second language vocabulary* or *anatomy information* – tasks that are low in element interactivity. In such tasks, introducing so-called 'desirable difficulties' that increase the load on working memory appear to enhance learning. For example, learning materials may first give the initial letter of a word and ask students to generate a response rather than simply giving them the word, or they could involve the almost immediate use of practice testing.

The New York Times article refers to *a 2021 meta-analysis* and claims:

> *Dr. Kapur recently co-wrote a meta-analysis analyzing 53 studies from the past 15 years*

that examined which teaching strategy was more effective: providing direct instruction on how to complete a problem before practicing it, or providing well-designed questions to provoke thinking on a concept before introducing knowledge about how to tackle it… Problem-solving practice before learning a concept was significantly more effective than the converse – learning the concept first and then practicing. (para. 17)

I don't think this is an accurate representation of the research.

But first, notice how the issue has shrunk. We have gone from asking students to struggle to asking them to struggle *for a while* before providing direct instruction. This is significant. Since around 2009 and the publication of a scholarly work, *Constructivist Instruction: Success or Failure*, no serious educational

psychologist still promotes the concept of extended periods of self-directed learning – despite it being popular in schools. Even the fans of struggle have retreated to a position that concedes that complete instructional guidance is needed at some point; they just propose a little open-ended problem solving first.

Even so, I reviewed similar literature to Kapur in *the 2020 paper I co-authored and which is based upon my PhD research*. Many experiments have been conducted that have attempted to compare problem-solving followed by direct instruction with direct instruction followed by problem-solving. Unfortunately, a substantial proportion do not use robust experimental designs. Of those that do, the results are mixed and even then, can be hard to interpret.

For instance, *one of the stronger studies* showing the advantages of a struggle-first approach involved teaching students about a statistics concept. However, those students who first received direct instruction in the standard method then had to spend time attempting to solve one problem different ways using their own invented methods. It is unlikely a teacher would do this.

Sometimes, studies in this field find an advantage for struggle-first in 'conceptual knowledge' but not 'procedural knowledge'. This sounds impressive. Who cares about mere procedures? Except that procedural knowledge – such as how to balance chemical equations – is both important and high in element interactivity. And although it is critical for students to have an understanding of what the '=' sign in an equation means, the way this is assessed *often amounts to asking for a definition* and learning definitions is low in element interactivity.

In my own experiments in this area, I adopted a novel design to test the struggle-first hypothesis in the context of middle school students learning about energy efficiency. By using a reading filler task and staggering the two conditions, I ensured all students were in the same

My concern is that the breathless New York Times *article will prompt yet more enthusiasm for setting students problems they cannot solve – with none of the nuance that even the proponents of struggle would emphasise – and then perversely celebrating the inevitable frustration this will generate.*

session of direct instruction. This meant that I could not unconsciously provide subtly different teaching to the two groups, a potential problem in many of the other studies. My results found an advantage for direct instruction followed by problem-solving over problem-solving followed by direct instruction. In one case, this extended to 'transfer' problems, i.e., problems that require students to apply what they have learnt in new situations. I found no support for the struggle-first hypothesis.

Even proponents of struggle-first list *several conditions* that are necessary to apparently achieve the effect. Most importantly, the problems students are initially posed must be understandable in everyday language and amenable to students' naïve solution attempts. It is hard to think of topics in, say, advanced mathematics that fit this bill. I managed to design such a task, but it was tricky.

My concern is that the breathless *New York Times* article will prompt yet more enthusiasm for setting students problems they cannot solve – with none of the nuance that even the proponents of struggle would emphasise – and then perversely celebrating the inevitable frustration this will generate.

I guess the counter-narrative that explicit teaching aids complex learning but struggle aids the rote memorisation of facts is unlikely to catch on in our faculties of education.

This article originally appeared on the author's blog, Filling the Pail.

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There are definitely better ways to teach reading

Kate de Bruin

Pamela Snow

Linda J. Graham

Tanya Serry

Jacinta Conway

Recent blog posts and articles in *The Age* have yet again stirred debates about the *Reading Wars*. We are writing this piece as a call for unity because we agree with the *recent blog authors* that there is no 'perfect way' to teach reading. However, we know from both research and practice that there are unequivocally better ways that are both more efficient and more effective for a diverse student cohort, including the most disadvantaged.

Better ways to teach *all* students to read

Effective reading instruction involves using the most equitable and efficient teaching practices which result in the highest proportion of children in a class becoming literate. Such practices are informed by the most reliable evidence about the theoretical basis of a reading curriculum, its scope and sequence, and the pedagogies that are most effective.

To teach reading *equitably*, teachers must be equipped to use practices that are designed to be beneficial for the most diverse student cohort, not just those in the middle of the curve or better. This is more socially just because it results in fewer children needing access to scarce intervention and support resources.

To teach reading *efficiently*, teachers must be equipped to teach using methods known to have the greatest impact and provide the best support for all students to 'crack the code' of the most complex writing system in the world, enabling them to move quickly beyond learning to read, into learning *through* reading.

The Reading Wars stem from differences in beliefs as to how this is best achieved.

What are these differences?

Champions of implicit teaching argue that immersing a child in a print-rich environment in conjunction with using incidental instruction creates an environment in which children can learn to love reading. These champions emphasise that extracting meaning from text should always be the highest priority in any teaching moments. Some in this camp even argue that explicit and systematic instruction in reading subskills is harmful and can *damage students'* potential love of reading while *de-professionalising teachers*. We have not yet found any empirical evidence to support these claims.

Champions of a structured approach, a group in which we count ourselves, promote the use of a carefully planned scope and sequence of reading instruction using practices supported by strong research evidence. They argue that reading is made of teachable subskills best taught explicitly with some skills being pivotal to the acquisition of subsequent skills and needing to be mastered first. The most common example is phonic decoding or 'cracking the code' being a precursor to reading automatically and fluently to aid comprehension, along with developing strong vocabulary skills and background knowledge. This does not mean that

decoding is all that is taught at first but that it is done in an integrated manner using a rich and varied range of books to build children's background knowledge and vocabulary. These claims are supported by decades of international research and three national inquiries.

Which approach has the most evidence (with a capital 'E')?

There are different types of evidence and each approach above has an abundance of evidence to support it. However, the structured approach is backed by experimental and empirical research best suited to determining the effectiveness of a teaching practice in a classroom. Such research can also be further assessed through systematic reviews and meta-analyses, occupying the *highest levels of evidence*, meaning that confidence in the findings is higher.

Such research suggests *systematic and explicit instruction* in the reading subskills of phonemic awareness, decoding and fluency are efficacious for teaching children to read more accurately and fluently in the early years. *Research* also indicates that students with learning difficulties and disabilities can master reading when they are provided with systematic and explicit instruction *early*, as opposed to incidental and implicit instruction, making this a more equitable approach to the teaching of reading.

What does this evidence suggest?

It is important to support teachers by providing them with knowledge and skills through a framework that supports teacher autonomy and decision-making to enable personalising of learning for students. However, the *Four Resources Model* promoted in the recent blog is not the most helpful framework for reading instruction, nor does it have the most evidentiary support.

The Four Resources Model rests on a conceptualisation of reading as a component of critical literacy, being a 'mode of *second guessing texts*, discourses and social formations'. The architects of the model argue that teaching reading relies on teachers selecting practices based on how they view students' existing economic, social, cultural and linguistic assets for which the model maps a range of practices to use in response. We have not been able to locate any robust empirical research that affirms the Four Resources Model as a theory of reading, or as a framework for teaching reading.

The *Cognitive Foundations Framework* on the other hand, is an empirically grounded and practical model for supporting teachers' decision-making about instruction and support. It provides teachers with a clear map of students' areas of strength and weakness in reading subskills. Such mapping provides teachers with a clear path to personalising teaching by identifying what individual students know and what they need to learn next to become skilled readers.

Our research and practice highlight the importance of preparing teachers to use approaches that are systematic and consistent across classes and schools. Teachers and leaders knowledgeable in these are the cornerstone of developing skilled readers and can ensure 95%-plus students achieve foundational skills.

Many teachers we have worked with speak of their regret when they think of the students in their former classrooms

To teach reading efficiently, teachers must be equipped to teach using methods known to have the greatest impact and provide the best support for all students to 'crack the code' of the most complex writing system in the world, enabling them to move quickly beyond learning to read, into learning through reading.

There are definitely better ways to teach reading

who did not successfully learn to read: children who they now realise could have become successful readers.

A call for unity

Every year that we spend debating is another year that many children do not receive the instruction they need to learn to read. This locks them out from all that education has to offer, entrenching deficit perceptions and economic disadvantage.

We need to focus on what we all share: a strong desire to create skilled readers and find ways to enhance the community standing of teaching by ensuring that knowledge that belongs to teachers is placed in their hands before they arrive in classrooms.

Let's give them the full set of professional knowledge and skills they need to truly personalise teaching and ensure every child learns to read and succeed at school.

This article was originally published on [EduResearch Matters](#)*.*

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"I always have trouble with forms": Homeless people on how poor literacy affects them – and what would help

Homelessness remains a *huge problem* in Australia and an important contributing factor is low *literacy levels*. We interviewed 23 people who were homeless or had experienced homelessness to find out how they viewed literacy and participation in literacy classes. We wanted to know what would help or hinder them in attending literacy classes.

Benjamin Hanckel
Alan Morris
Keiko Yasukawa

Our *report* found low literacy levels affected homeless people's lives in many ways. Our interviewees repeatedly emphasised the importance of having a literacy program suited to their needs.

Common factors driving poor literacy
Housing instability or adolescent homelessness was a common factor contributing to poor literacy. Dropping out of school at an early stage was typical.

Holly* said:

> I dropped out of school in Year 7 so I haven't had much schooling […] And then going to being on the streets and going from house to house you don't learn very much. Just what sort of you learn from other people.

Lisa told us:

> I tried to get my Year 10 but I didn't end up getting it [Year 10 certificate] 'cos I had a baby. And I ended up taking my baby back to school but I'd probably say Year 9.

Sam had a similar history:

> I left halfway through Year 10. I didn't even finish my Year 10 exams. I did the half-yearly but didn't complete my certificate so I found it really hard to get into work.

Daniel said:

> I didn't really start reading until I was an adult. I read the pictures in MAD magazines and stuff like that.

They also spoke about factors such as learning disabilities such as dyslexia, as well as systemic factors such as racism.

Rick, an older Indigenous man, experienced institutional racism throughout his youth:

> I didn't have much schooling because of discrimination back in the '60s, '70s and that, and didn't get much to school.

A humiliating experience

The experience of not being able to read was humiliating for some. Gregory said:

> I can't even read the newspaper. I pretend to people [...] I can read [...] but I just look at the pictures.

Interviewees said that besides not being able to read the newspaper, they struggled with key activities such as *filling in forms*, shopping, reading and sending emails or text messages, and writing letters.

Luke told us he wanted:

> [...] help with reading newspapers, stuff like that [...] Filling out forms would probably come in handy 'cos I always have trouble with forms [...] You name it. Everything you've got to do nowadays is filling out forms.

Andrew said:

> Just dealing with the paperwork and that with all the different agencies you have to go through, while you're homeless is just absolutely insane.

Aaron told us:

> I've got pretty basic literacy. Like, since you left school, you forget a lot of words ... you don't use most of them. And then you get on the phone and you're trying to send a message and [...] you go, "How do you spell that bloody word?" You can't put the [...] letters to the word.

A stepping stone

All interviewees felt a literacy program for homeless people would improve the quality of their lives. As Daniel said,

> Literacy obviously is a key factor for a successful life, isn't it?

They recognised the strong link between finding employment and improved literacy. They felt classes were a good idea if they would, as Drew suggested, "better my job prospects".

Leanne saw value in having some formalised recognition, saying:

> If it puts me back into the workforce, that'd be great – even if it was just, like, a certificate of attainment or whatever. That'd be even better.

Some interviewees saw literacy classes as a stepping stone to engage with educational institutions, and finish high school certificates.

Holly said a literacy program would help her do "Year 10 and my HSC, no matter how much it takes".

Some also wanted to enhance their skills to read and write for pleasure. Daniel commented,

> I'd expect a tutor to say, "Pick up a book. I've got one here that I suggest if you're struggling".

Interviewees said that besides not being able to read the newspaper, they struggled with key activities such as filling in forms, shopping, reading and sending emails or text messages, and writing letters.

The benefits of books were also noted for well-being. As Sandra said:

> *Books have helped me through my mental health issues [...] books are very useful in times of need.*

What would help create a successful literacy program?

Interviewees told us a successful literacy program for homeless people would need to provide refreshments, have empathetic tutors, be comfortable, be accessible and be in familiar territory.

Anna said a literacy class would be best at:

> *a community centre or like a town hall something like that. Something relaxing [...] 'cos you don't want people coming in and just being, you know, [in] unknown territory.*

Andrew said:

> *People would probably be more comfortable coming to a place like this [a community centre] as opposed to a university 'cos you've got some pretty funky young people nowadays.*

Chloe told us:

> *A venue that would be central but also not so public as well [so] that they could easily get to [it] and not feel judged when they're walking through.*

Interviewees told us an effective tutor would be respectful and understanding. Andrea said:

> *Just be really open and understanding [...] Obviously not judgemental or that sort of stuff. I guess just to maybe try and understand that people are at different levels as well and people want different things out of the course.*

What happens next

A growing body of research has drawn a link between *poor literacy and social outcomes*.

Our study, funded by *The Footpath Library*, highlighted how structural issues in a person's formative years affect their literacy and life outcomes.

A *parliamentary inquiry* into adult literacy recently identified the need for local community-based '*literacy mediators*'. These are professional educators or peers who have the literacy competency and necessary skills to enhance the literacy of people experiencing homelessness. Literacy mediators would support them with their literacy needs in a safe and inclusive way.

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What is effective praise?

Kevin Wheldall, Robyn Wheldall and Jennifer Stephenson

Statement of the problem

Teacher praise has long been advocated as a means of motivating and rewarding school students. Some contemporary critics argue, however, that teacher praise may be harmful and may serve to diminish the intrinsic motivation of students.

Proposed solution/intervention

Teachers should employ praise in a consistent way based on what the research evidence has shown to be most effective and should avoid using praise in counterproductive ways.

The theoretical rationale – how does it work?

The use of teacher praise to influence student classroom behaviour is based on applied behaviour analysis, specifically reinforcement theory. Behaviour that is followed by reinforcing consequences increases in frequency. Teacher praise is known to be a reinforcer for many students. By employing praise as a consequence in a systematic way, contingent upon appropriate student behaviour, teachers may increase the amount of time students spend behaving appropriately in the classroom. This is sometimes known as 'Positive Teaching'.

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

The research on use of teacher praise reveals that whereas teachers typically praise students frequently for academic behaviour (producing good work), they very rarely praise students for appropriate social behaviour in the classroom. Conversely, while they are less likely to reprimand students for poor work, they reprimand students for inappropriate classroom behaviour at very high rates. Numerous experimental studies carried out over many years have demonstrated unequivocally that teachers can increase the amount of time students spend behaving appropriately by reducing their rate of reprimands to inappropriate behaviour and concentrating on praising instances of appropriate social behaviour. Praising students for what they already do well, however, may serve to decrease their intrinsic motivation.

Some simple rules for praising

1. Praise the behaviour, not the person.
2. Praise quickly and consistently.
3. Praise only actual instances of the desired behaviour; i.e., praise contingently.
4. Praise specifically and descriptively.
5. Decrease praise for frequent appropriate behaviours.
6. Privately delivered praise may be more effective for older students.

Conclusions

Effective praise is not about making continual positive statements unrelated to behaviour (e.g., 'Good girl'). Praise delivered non-contingently or directed to the person or product rather than to a specific desired behaviour could be less effective. Similarly, lavishly praising behaviour that is already learned and frequent may also be counterproductive. But praising students contingently for behaving appropriately is a powerful means of increasing appropriate classroom behaviour.

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