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Issue 14, December 2022

HOT IN 2023: IMPROVING SPELLING AND WRITING INSTRUCTION

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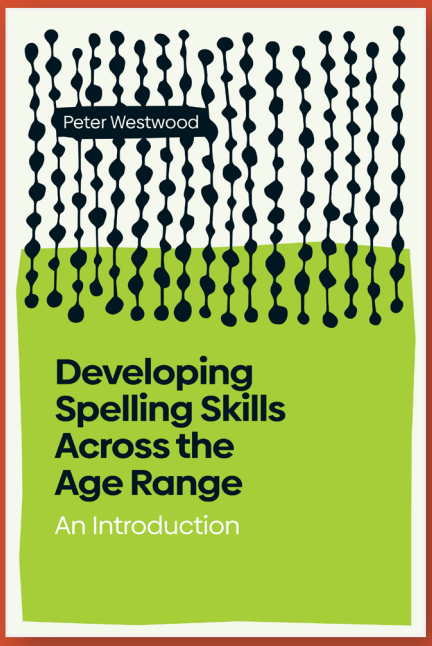

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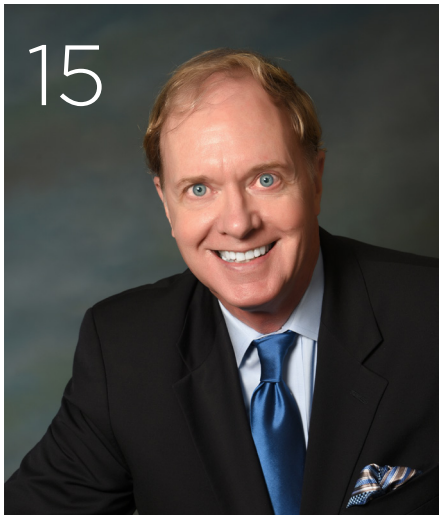

Reading | Teaching | Learning | Connecting

ISSN 2207-0478 (Online)

Nomanis is published twice yearly
by MultiLit Pty Ltd
Suite 2, Level 7, Building C
11 Talavera Road
Macquarie Park NSW 2113
Australia
www.multilit.com

MultiLit is a research initiative of Macquarie University

Joint Editors
Emeritus Professor Kevin Wheldall AM
e: *kevin.wheldall@multilit.com*

Dr Robyn Wheldall
e: *robyn.wheldall@multilit.com*

Assistant Editors
Dr Nicola Bell and Tessa Barnett

Editorial Team
Sarah Arakelian
Dr Jennifer Buckingham
Dr Mark Carter
Dr Anna Desjardins
Dr Alison Madelaine
Dr Ying Sng

Prevention is better than cure

Robyn Wheldall

The gnarly and persistent issue of disruptive classroom behaviour has raised its ugly head again. In September, the New South Wales (NSW) Government announced that it will be conducting an international search to recruit a behaviour specialist to advise on behaviour across all education sectors. At first blush it seemed like a welcome response to what appears to be a growing problem in schools. Things certainly seem to have deteriorated since I did my doctoral research in this area some 20 years ago. The OECD's 2018 Program for International Student Assessment (PISA) revealed that Australian students ranked 70th out of 77 participating nations on the index of school disciplinary climate. In 2009, Australia was sitting around the average for unruly classrooms. In the more recent statistics, students have complained about classroom noise and disruption, and classroom unruliness in general: a total of 43 per cent of them reported disorder in their classes, compared with an OECD average of 32 per cent.

Interruptions to in-class schooling through the pandemic have no doubt increased the challenges of disruptive behaviour for teachers and students. Some responses to the announcement have been to call for an increase in school counsellors in the system. While there is clearly a gap in direct services to children and young people who need psychological support, this is not the principal solution to the problem in my opinion. The well-worn metaphor of ambulances at the bottom of the cliff rather than fences at the top comes to mind.

The best way to manage disruptive behaviour is to prevent it in the first place.

In the same way that many teachers bemoan the fact that they have been ill-prepared to teach reading in their initial teaching education (ITE), so too with behaviour management. Teachers often lament that they have not been adequately prepared to deal with the behaviour that they have to deal with, especially given the broad range of students that are present it their classrooms.

Consider an alternative approach – that student behaviour in the classroom actually starts with the teacher. How has the classroom environment been set up to minimise possible disruptions and encourage engaged and positive behaviour? This particular factor is not down to the students but down to the teacher. There are simple ways to avoid problems developing in the first place. Of course, this will not address each and every instance of disruptive behaviour but it will reduce the amount of it that teachers have to deal with.

And it not just about the classroom set-up. We know how crucial the teacher is in achieving academic results in the classroom. So too is the way that the teacher responds to students in the class. A powerful strategy of acknowledging when students are engaging in pro-social behaviours can really help build a positive classroom environment. One of the problems is how we think of 'behaviour'. We think that behaviour is something that students do and behaviour management is how teachers respond to that. It is often a reactive response. There is a problem and we have to deal with it. But while teachers are very good at recognising and acknowledging the academic work and achievements of their students, they are much less likely to recognise appropriate and engaged social behaviour in the moment in the classroom. This is the

case across all levels of school education. This is a crucial element of building a positive classroom environment.

There is sometimes a certain expectation that students will know how to behave and will automatically do it. But, as with other skills, we have to teach behaviour. Participating in a large group of same-age peers in the presence of one adult is not a particularly natural situation. Consider the days pre-schooling when children would work alongside family members of varying ages, learning what to do and how to behave in given situations. This is a far cry from today's classrooms.

All of this is not to say that serious misbehaviour does not occur in classrooms. It certainly does, as a piece in *EducationHQ* that was published the day after the announcement was made explains. A casual teacher relates a horrifying recent situation where she was repeatedly confronted by a student with a pair of scissors in a visual arts class. (The scissors in question were not part of the lesson, but the student had helped herself to the bank of resources that had been left on the teacher's table.) Fortunately, the teacher sought help that was forthcoming but was dismayed when, after making her report at the end of the day, there was no evidence that the student in question had been put on a 'behaviour plan'. This goes to the critical importance of a whole-school approach, where there are consistent expectations of appropriate and pro-social behaviour and cultural mores that would ensure that such an example would be less likely to arise in the first place.

There is no doubt that support from the leadership in schools is a vital component of an effective and positive school environment. There may be school-wide systems of merit certificates and acknowledgement that recognise positive social behaviour, and this is a good thing. But we know that the most effective way to influence behaviour is to respond to it immediately, contingently and abundantly. That's an 'in the moment' action that teachers can take. Behaviour does not occur in a vacuum and there are many ways in which we can set up the classroom environment to make it safer, more positive and more likely to result in the minimisation of disruptive and dangerous behaviour. And let's not forget that very little learning can occur when the teacher is prevented from teaching. Fortunately, most high-frequency disruptive behaviour (students talking to each other, calling out, preventing other students from learning) is still relatively trivial, as I found in my earlier research. Fortunately, this type of behaviour is amenable to some simple strategies that teachers can put in place relatively readily. When low-intensity but high-frequency behaviour is curtailed there is more capacity for the teacher to actively manage any more serious misbehaviours.

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It is incumbent upon teacher educators that they equip teachers with the knowledge and skills that are necessary to create effective and positive learning environments, for both the students and the teacher. It is no wonder that teachers cite disruptive classroom behaviour as one of the primary reasons that they leave the profession. Knowledge is power and there is knowledge about effective classroom management that can be imparted to teachers. We are letting them down if we do not do this.

Editor's postscript: On 28 November 2022 the Australian Government Senate referred "The issue of increasing disruption in Australian school classrooms" to the Education and Employment Reference Committee for inquiry and report by the first sitting day in July 2023.

Robyn Wheldall, Joint Editor

What we've been reading

Sarah Arakelian

While my reading has been rather light lately, I have been reading *Bewilderment*, a novel by Richard Powers about the relationship between a father and his autistic son as he grows from a boy to a teenager. Unlike *The Curious Incident of the Dog in the Night-time*, which has a similar protagonist and which I loved, I have found this story more difficult to read. Though it is not a happy story, I did enjoy the moments shared between father and son as they escape into their own worlds.

On inspiration from a talented colleague's theatrical performance, I read *Little Women*. Having enjoyed the movies since I was little, it was not surprising that I thoroughly enjoyed the book, getting new insights into the characters and lovely little side stories not portrayed in the movies.

I also have to add that my son recently received a gift of Van Gool's *Puss in Boots* which I enjoyed more than I expected, not being a fan of the newer version of the story.

Jennifer Buckingham

Once again, a range of older and newer books over the past few months. One of the newies was *Where the Crawdads Sing*, which had been passed around my family members and had received mixed reviews. I found the first half compelling, but my interest had waned by the end. The other airport novel (literally) that I read was Daniel Silva's *The Cellist*. I kept coming across Silva's name and books in one of those odd experiences where something/someone I had never taken any notice of suddenly seemed to be everywhere I looked. *The Cellist* is the 21st book in the series with art restorer and Israeli intelligence officer Gabriel Allon as the protagonist but the first I had read. Maybe I needed to start earlier in the series because while the plot was OK, the characters were underdone and I couldn't really drum up much enthusiasm for them. Much better were Helen Garner's *Yellow Notebook: Diaries Volume 1 (1978-1987)* and Leonard Cohen's *The Flame*. It's no secret that I am huge fan of Helen Garner, so I enjoyed the self-deprecating musings and reflections in her journal, written when she was a little younger than I am now. Leonard Cohen's poetry is free form and pitches between depression and optimism – "maybe tomorrow will be better / and the banner raised again / for the sisterhood of women / and the brotherhood of men". In a similar vein, I thoroughly recommend Nick Cave's *Red Hand Files*, which you can find online or subscribe to via email. You don't have to be into Cave's music to appreciate his well-crafted and thoughtful responses to questions sent to him about life, suffering, beauty and art, by people from all over the world. Finally, although I am a great admirer of Margaret Atwood's writing, I had never read *The Handmaid's Tale*, so I pulled it from a pile of books my uncle was discarding. Like all of Atwood's books, she creates a vivid and disturbing world with wonderful prose. It's not something I would read again, though, so it went back into the donation pile.

Alison Madelaine

I have been reading more than usual lately. I'm not sure how – perhaps there has been less phone-scrolling in my downtime? So, I have too many on my list to mention, but some favourites (including some fairly heavy-going stories with difficult subject matter) have been *The Mother* by Jane Caro, *Before You Knew My Name* by Jacqueline Bublitz, *Sorrow and Bliss* by Meg Mason, *Cutters End* by Margaret Hickey, *The Choke* by Sofie Laguna and *Bruny* by Heather Rose.

I also really enjoyed *Dear Mrs. Bird* by A.J. Pearce. It is set in World War II and is about a young, independent woman who wants to become a war correspondent. She takes a job with the *London Evening Chronicle*, but the job is not exactly what she expected. There is a sequel to *Dear Mrs. Bird*, so I will be reading that also.

Like so many others, I read and enjoyed *The Dictionary of Lost Words* by Pip Williams, and for the first time, I finally got to *My Brilliant Career* by Miles Franklin – now to compare it to the 1979 film.

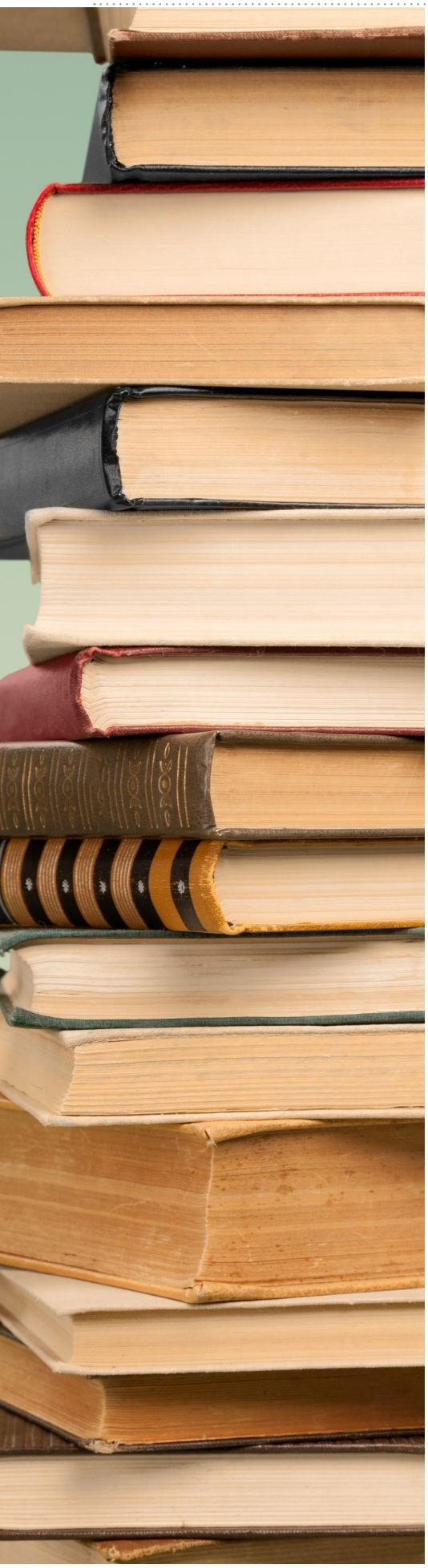
Finally, an unusual recent read was *Girl in the Walls* by A.J. Gnuse. This book is based on the idea that there could be someone living in your house who you don't know about. Someone who comes out at night or when you are not at home, eats a bit of food here and there and moves things around. They may at this moment be behind a couch, in an attic or basement, or between the walls. Maybe you notice some of these things, hear a sound, or catch a glimpse.

Mark Carter

When asked to contribute on my recent reading, I informed my colleagues that, for the most part, I only read nonfiction. I was not quite sure how to interpret their reaction – bewilderment perhaps? In my defence, I find reality far more interesting, and often more bizarre, than anything that could be fabricated. For example, my most recent read was *Merchants of Doubt* by historians of science, Naomi Oreskes and Erik Conway. The book is a meticulously researched historical detective story, dealing with unprincipled greed, casual disregard for human life, betrayal, and serial misuse and abuse of power. It deals with conspiracies (real ones) that, in some cases, resulted in the deaths and suffering of millions. The cast of characters includes some of the most brilliant minds of the past century, individuals who were also deeply flawed, ultimately being willing to sacrifice their scientific principles and integrity on the altar of ideology and politics. What else could you want in a page turner? Okay, admittedly, it is devoid of even the faintest whiff of romance, but that works just fine for me.

The story starts in the 1950s when it became clear to scientists, including those in the tobacco industry, that smoking caused serious health problems. How could the industry address this evidence, and the inevitable tsunami of confirmatory science that would follow? The solution was, in equal parts, simple and brilliant. They wouldn't! Rather than addressing the evidence, they would simply 'merchandise doubt', specifically to the lay public and their representatives, the (equally lay) politicians. The industry developed a playbook of strategies to ferment doubt, even though the science was clear and the consensus was overwhelming. The central thrust of these strategies was to claim that the science was 'not settled' and create a gap between public understanding and the consensus of scientific experts. An important plank in the strategy was leveraging the testimony of contrarian scientists and experts holding outlier views, in many cases in the employ of industry.

The playbook created by the tobacco industry was a remarkable success. It effectively delayed by many decades most of the restrictions and legislative changes surrounding smoking that we take for granted today. However, in hindsight, the greatest impact of the tobacco industry on society may not have been the product they sold, but the template for denying science they created. This has been repeatedly employed over the past half century by those with financial or ideological vested interests, with the same cast of characters turning up surprisingly often. The strategies pioneered by the tobacco industry continue to be used with great success today in a range of issues that appear in your daily newsfeed, often amplified by the algorithms of social media platforms. What issues you ask? Well, that's your homework for this week.



Anna Desjardins (Notley)

I had my first taste of Geraldine Brooks earlier this year, when I read *March*, a historical fiction exploring what Mr March, the absent father in Louise May Alcott's *Little Women*, may have been doing while acting as a chaplain on the front lines of the Civil War. Brooks skilfully captures Alcott's turns of phrase in the letters she imagines Mr March writes home over this time, while spinning a detailed story of her own, based on meticulous research of real events. She doesn't shy away from conveying the brutality of slavery or the full horror of war at a time when medical treatment was limited, so to say I 'enjoyed' this book is difficult, but I was certainly moved by it.

On holiday in New Zealand, I read Ruth Shaw's homegrown memoir *The Bookseller at the End of the World*, spanning a childhood spent in several South Island towns in the 1940s, through many an unpredictable adventure leading Shaw circuitously, 70 years later, to open a colourful 'wee' bookshop in her garden in the remote village of Manapouri. Told in bite-size snippets, and interspersed with anecdotes about visitors to the bookshop, this was a relaxing book to dip into in short bursts, and was interesting for me, because I felt like I could have been reading about my own parents, or their siblings – with their own brand of uniquely Kiwi pluck!

Like many, I'm sure, I also read *Where the Crawdads Sing*, by Delia Owens this year. With an intriguing central character who satisfyingly beats all the odds stacked against her, this was an appealing blend of coming-of-age drama and murder mystery, against a backdrop of evocative and lovingly drawn descriptions of the natural world. A good summer holiday read if you haven't got to it already. (I can't comment on the film, though – on reading a fairly damning review of the adaptation, I decided against seeing it).

To mix things up, I've been enjoying some poetry over breakfast lately, with a couple of 'how to' guides: *How to Fly in 10,000 Easy Lessons* by Barbara Kingsolver and *How to Make a Basket* by Jazz Money – two completely different voices, the first showcasing a depth of understanding and feeling that can only come with life experience, the second a young, fresh insight into a First Nations viewpoint – but both accessible, and both often achingly beautiful.

Finally, for my dip into the classics, I turned to Shakespeare. I took to reading quite a bit of the Bard during lockdown (finally, that *Complete Works* volume coming in handy for more than flower-pressing and doorstop functions!) and I have to admit that it gives me a startled thrill when, wading through the words, I come across a piece of dialogue that speaks with surprisingly modern tendencies clean across the centuries. Discovering Emilia's observations of men and women in *Othello* on a cold Sydney winter night a few months ago, gave me one of those moments: "Let husbands know their wives have sense like them. They see, and smell and have their palates both for sweet and sour, as husbands have … And have not we affections, desires for sport, and frailty, as men have? Then let them use us well … " Indeed, William, indeed.

Ying Sng

When I was much younger, I persevered with a book even though I wasn't enjoying it. I owed the author that much and maybe it would improve. About 10 years ago I decided there were too many books and not enough time, so I strategised. I would give a book a quarter of the total pages to hook me. If it didn't happen, I'd put it down and move on. No hard feelings. I'd bought the book and my obligation to the author was fulfilled. I was going to judge the book not by its cover but by the

first 25 per cent. This strategy did not serve me well when I picked up *Sorrow and Bliss* by Meg Mason. I adored the first third. Oh boy, this was going to be GREAT! All the reviews told me I'd love it. Then, I would read a sentence or a paragraph and I'd realise I was unconsciously rolling my eyes or I'd say "for Pete's sake" out loud. I was beyond my self-imposed cut-off so I couldn't abandon it and it was a book club discussion book. Sigh! The main protagonist was so wilfully unkind to the people who loved her the most and there was so much dysfunction, neglect and mistreatment that reading it became quite unpleasant for me. Although she was so mean to her family, she managed to charm other people. How do you activate your charisma enough for someone to let you stay in their Parisian apartment rent free for years? I was very irritated by the whole thing! Underpinning the entire plot was a misdiagnosed mental illness but I didn't think it gave someone reason to be cruel. I wasn't convinced by the ending either, it was just too tidy. A friend told me she vacillated between wanting to hurl the book against a wall and fist-pumping. Yes, I agreed … That reminds me, I must get that dent in the wall fixed.

Next up is a book that stayed firmly in my hands. No airborne adventures for *Loop Tracks* by Sue Orr! The book begins in the late seventies with the main character recalling her first plane ride, from Auckland to Sydney. Charlie is taking the journey alone because what she needs is no longer available in New Zealand. It was a bad time to be unwed and pregnant. Even worse when you are 16 and your parents have had to borrow the money for the trip. The decision to get off that plane defines this young woman's life. She gives birth to her baby, and he is adopted. Charlie cannot reveal the name of the baby's father and the reason for this becomes clearer later in the book. The baby does not grow up to be a nice bloke and he manages to track Charlie down years later and she ends up raising her grandson, Tommy. The plot traversed issues of abortion, euthanasia, consent, politics, conspiracy theories and neurodiversity. What anchors the story is family and connection. I thought the characters were developed with empathy and this is the first book I've read that weaved a COVID lockdown into the plot. Somehow it made it more relatable and added to the story. I would recommend this one and all is well in my small literary world.

Kevin Wheldall

In my last contribution to this feature, I was mildly critical of *The Christmas Pig*, a book for young children by J. K. Rowling. Here I go again ...

But I should stress that I have been a great fan and admirer of J. K. since the first Harry Potter book was published all those years ago now. Moreover, I have great respect for her brave, much criticised, but truly feminist stand in the current gender wars. Consequently, it grieves me to write critically (again) of her latest work in the Cormeran Strike series, published under her nom de plume Robert Galbraith. Coming in at just over 1000 pages, *The Ink Black Heart* is a daunting read. (I could have been reading *War and Peace*!) But apart from the need for it to be edited back to (at least) half the length, the biggest black mark (pun intended) is reserved for J. K.'s ill-advised, extensive, and excessive use of pages of double column, internet chat room conversations among the main suspects. Rather than being a clever plot device, it is a continual source of irritation and distraction from the main game. I gather that I was not alone in feeling this way. I still love the main characters in the series (Cormeran and Robin), and remain engaged in their welfare, but what promised to be a feast was, sadly, largely indigestible.

On a far more positive note, I owe a great debt of gratitude to my dear old (as in longstanding) friend Coral Kemp who introduced me to the work of Peter May, as a present for my birthday. The Lewis trilogy, set on the remote Scottish island of that name, comprises *The Blackhouse*, *The Lewis Man* and *The Chessmen* and is a delight; engrossing, beautifully written and highly recommended.

Me and Reading Recovery

Tim Shanahan

Teacher question:
Would you do an article about your thoughts on the recent report about Reading Recovery?

The first time I heard of Reading Recovery (RR) was in 1987. The editor of the *Journal of Reading Behavior* asked me to review Marie Clay's book, *The Early Detection of Reading Disabilities*. I knew of the book – even had a copy – but was only aware of the innovative assessment that it presented.

I hesitated to take on the task since the book was already in its third edition and had attracted a reasonable number of reviews already. That was the point, she told me. The instruction proposed in the book had not been reviewed and nor had the research included in its appendix. I'd be the first independent scholar to take a careful look. She thought that would be timely since some professors at Ohio State were then trying to bring the program to US schools.

I conducted the review, attending more to the research claims than the instruction itself, though I noted that the activities were aimed at teaching "directionality of print, locating procedures, spatial layouts of pages, story writing, oral reading, correspondence of spoken and written words, and letter names" and included procedures for "teaching children to read fluently, for helping them to develop self-monitoring and self-correcting strategies during reading" *(Shanahan, 1987)*.

Notice anything missing? I either didn't or chalked up any omissions to the fact that the program targeted kids who were still not reading well after a full year of teaching. Clay, I assumed, believed that at that point such kids in New Zealand would be decoding and would need lots of re-reading and sentence writing. In any event, I voiced no complaints about the teaching plan, but deemed the studies so poorly designed that one couldn't determine the value of the program on their basis. The flaws in Clay's data misleadingly made the program appear more successful than it had been.

Despite the thoughtful insights in my little review, in the ensuing years, RR became a very big thing in US education. More and more schools adopted it, more and more big-name reading authorities endorsed it, and more and more data accumulated as to its effectiveness. I wasn't particularly curious – lack of adequate research doesn't mean something doesn't work and I'd been ignored before.

During the mid-1990s, I was approached by one of the Regional Education Labs here in the US. Several governors were considering funding RR in their states and wanted to know what the research said. I was selected for this role because of that earlier review, but my negative take made them wonder if I wasn't too negative about RR. They asked if I would conduct the review with Rebecca Barr who they saw as more of an RR-advocate at that point. Becky and I differed in our views of RR then (not by the end of the process) but we had confidence in each other's integrity, so we agreed.

By then, Ohio State had generated a lot of data, and a handful of independent studies had accumulated too. We wrote the report and proceeded to try to publish a version in *Reading Research Quarterly.* That manuscript went through substantial review and the editors even obtained other prepublication studies for us to consider. That extended report was eventually published, and it even won an award.

We concluded that much of the RR literature was seriously biased (*Shanahan & Barr, 1995*). As with the original collection of studies, there were design flaws that systematically made RR appear more effective than it was. Much of the evidence had to be set aside.

However, there were a couple of studies that met acceptable standards (including a particularly well-reported independent randomised trial) and those well-done studies concurred as to its effectiveness.

We also examined some studies that supplemented RR in one way or another: one added explicit phonics instruction (*Iversen & Tunmer, 1993*); and the other included parent involvement (*Yukish & Fraas, 1988*). In both cases, enrichment

improved efficiency. Students accomplished the program goals with much less instruction.

We also reported the first cost analysis of RR. Program charges varied due to local differences in teacher salaries, but overall, enrolling a student in RR basically doubled the cost of their education for a school year. If a district budgeted $10,000 per child for a year of schooling, then RR added another $10,000 for each child enrolled, making it a very expensive intervention.

I mentioned those well-done evaluation studies. One was particularly notable, a study conducted in Australia (*Center, Wheldall, Freeman, Outhred, & McNaught, 1995*). This study quickly became the lens through which I viewed RR from then on. It was a randomised control trial with standardised assessment – and with none of the tricks, flaws and biases evident in so many of the other studies. Yola Center and her colleagues found RR to be effective (including in improving students' phoneme awareness and phonological recoding). This is also why the What Works Clearinghouse has determined that RR works: by focusing only on those studies that were rigorously designed and implemented.

There is more to looking at these kinds of data than identifying statistically significant differences between groups. In this case, the RR learning advantage was not particularly stark.

A full 35% of the RR kids were not discontinued. Despite 12 weeks (60 lessons) or more of RR, they failed to accomplish sufficient learning. With such a high failure rate, it should be clear that RR was not the magic bullet cure being so heavily promoted. If your school managed to treat 16 RR students (a number rarely reached), only 10 of those students would be expected to succeed. But it gets worse.

How about the control group? How did they do? Those kids got none of the expensive RR intervention, but 31% of them managed to do well in reading anyway. There are many possible reasons why that might be … maturation, regular classroom instruction, parent efforts … one of the most intriguing explanations is that the RR screening procedures couldn't distinguish youngsters with a learning problem from those a bit behind because of limited opportunity to learn (once they got some reading instruction – any reading instruction – they caught up). That latter possibility may not have been likely with the original New Zealand version of the program since RR came only after a year of reading instruction, but the US version jumped right in at the beginning of Grade 1, even when there was little or no Kindergarten reading tuition.

In any event, of those 10 RR kids who did well, five of them likely would have anyway even without RR given the success of the control group.

Effect size comparisons with other instructional efforts suggested that RR was comparable, though it was clearly more costly. RR did about the same as many of the other interventions, but this came at some cost. The RR kids needed more instruction to accomplish these outcomes, more individual instruction, and more instruction from the carefully selected "best teachers".

We examined the available longitudinal evidence and found that the discontinued students did not tend to keep up with their classmates in second grade and that the relative significance of their initial gains diminished yearly. A big part of the marketing of RR had been to emphasise its long-range value – RR students were going to be self-sustaining reading improvement machines! They wouldn't need expensive special education or other kinds of extra instructional supports in coming years. The longitudinal data made us sceptical about RR's lasting power without continued extra help for these students.

Think of it this way: there are two reasons why young children may struggle with reading – causes inside the head and causes outside the head. The inside-the-head barriers include low IQ, serious sensory deficits, cognitive processing problems, learning disabilities, etc., while the second set encompasses poverty, racism, absenteeism, neglect, poor instruction, etc.

RR successfully increases what children know about reading. But that doesn't alter their brains, nor does it enrich environments permanently. Catching up with the other kids is nice even if temporary, but there was nothing in the instruction that would be a long-term game-changer for most kids. It shouldn't be surprising that they begin to fall behind again as soon as the RR support is withdrawn.

That isn't a unique problem for RR. Few early interventions have long-term benefits. But this is a particularly pointed problem for RR, given its extraordinary expense and its profligate promises.

Again, life went on and I ended up in charge of reading programs in the

Chicago Public Schools (CPS). At that time, CPS incentivised schools to adopt RR. I ended that policy immediately and discouraged (but did not ban) individual schools from continuing the program on their own.

My reasoning was this. An average Chicago elementary school at that time enrolled about 850 students, K–8, 85% of whom were likely to be reading below grade level. How could anyone justify spending almost their entire reading improvement budget on successfully raising the reading levels of 4–5 first grade students? Especially when that meant ignoring the reading needs of 700 other kids who were also below grade level, and often much further behind than those first graders.

That to me was a serious ethical problem more than a pedagogical one.

What instigated this question was a recent report from colleagues at my alma mater, the University of Delaware (May, Blakeney, Shrestha, Mazal, & Kennedy, 2022). They issued the results of a longitudinal study on RR earlier this year.

They found that despite positive outcomes at the end of Grade 1, the RR kids had fallen behind comparison kids by fourth grade – surprising to a lot of people who have relied heavily on that program, and yet consistent with the conclusions we drew 27 years ago.

Essentially, the findings suggest that the kids would have been better served without RR – since the kids so like them outperformed them in the long run. I doubt very much that RR was causing damage. But no matter how one interprets that aspect of the study, it should be clear that RR simply fails to provide long-term learning benefits.

My conclusions

1 We owe a debt of gratitude to Marie Clay for making early reading interventions a thing. Despite the problems with RR, prior to her efforts it was uncommon for educators to respond to reading needs in Kindergarten and Grade 1.

2 Reading Recovery, despite some positive research results, neither is effective enough to justify its exceptional cost, nor are its small benefits long-term enough.

3 It should be clear, yet again, that explicit decoding instruction tends to be beneficial for students who haven't yet developed those skills. RR advocates would have been wise to adjust more based on the results of the *Iversen & Tunmer study*.

4 There are no magic beans when it comes to early literacy. The trick is to catch kids up early and then to continue to strive to keep them caught up. Don't spend all your resources on that first step, because you'll need them later, too.

5 No matter how many ill-conceived studies there might be on a topic, it doesn't justify ignoring the well-designed ones – even if you don't like their results. Following the science does not mean cherry-picking results that are consistent with your beliefs.

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This article originally appeared on the author's blog, Shanahan on Literacy.

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

Just to clarify: Three-cueing causes devastation, heartbreak and illiteracy

James Dobson

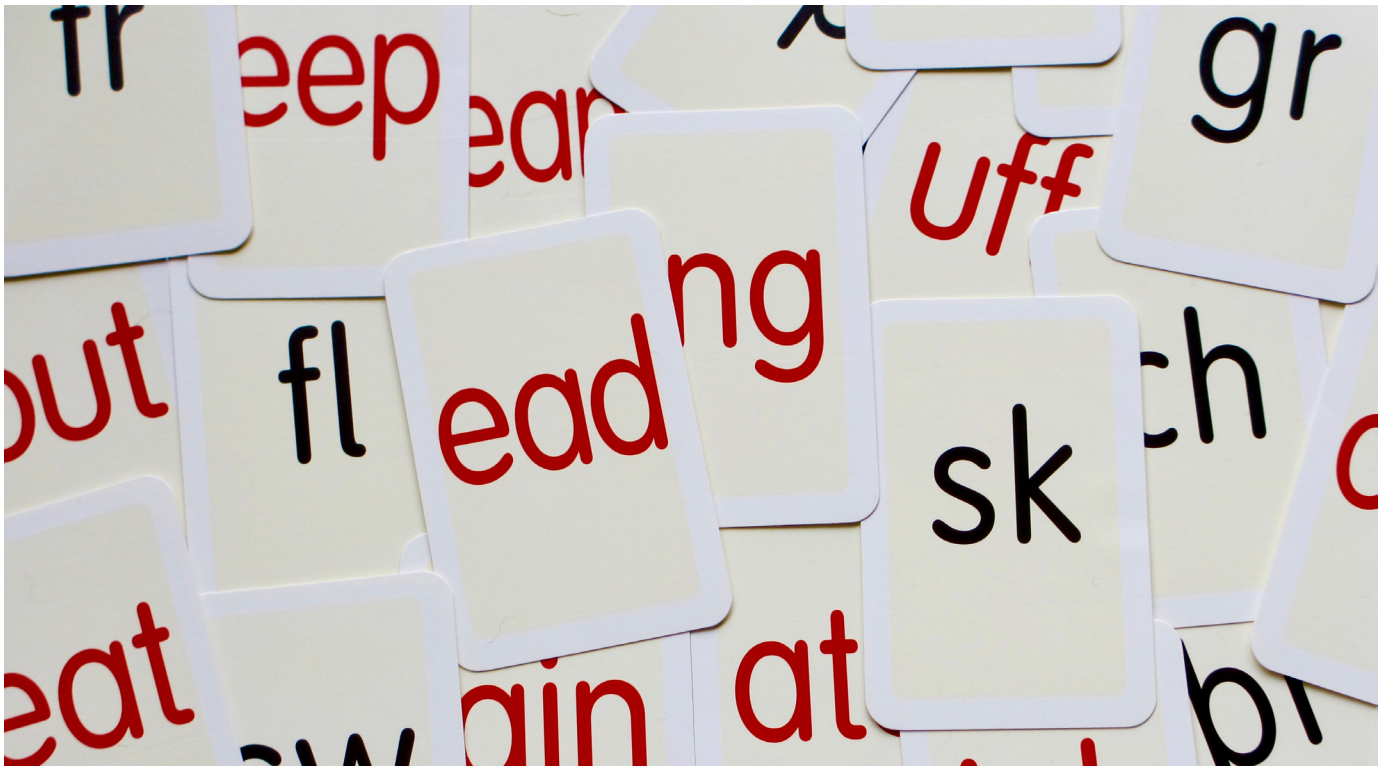
Recently I was listening to an audiobook. Thanks to a dodgy Bluetooth connection, every couple of minutes a word was skipped. Most of the time, I could work out what the word might have been. It was tedious, but I could still follow the story. Until it cut out as they mentioned "the myth of …". I had no context for what that missing word might be. There were very few clues in what I had heard. I had even caught the initial sound of the word, but given that there are over 4000 words starting with 'm' (according to a Scrabble dictionary), this was of little use. I was left frustrated and perplexed. It wasn't until they later repeated the phrase that I knew they were discussing "the myth of measurement".

As a fluent reader, I could fill in most of the blanks despite my dodgy Bluetooth connection. However, this is the complicated guessing game that occurs in many classrooms under the guise of reading instruction. Three-cueing is the misguided belief that we need to consider the meaning, syntax, and visual information to decode words. Instead it promotes guessing based on context or using clues provided by pictures. This style of instruction is evident in the current Victorian Curriculum Foundation English elaboration, which has students "attempting to work out unknown words by combining contextual, semantic, grammatical and phonic knowledge".

Of course, context is important in comprehending the text. However, the first step towards understanding must be accurate decoding. To create readers who are good decoders, students need to be able to orthographically map words through linking letters with the sounds they represent. To achieve this, we need to explicitly and systematically teach phonics. Decoding occurs when we focus on the letters in front of us and process them in order. If I am looking at anything other than the text on a page to decode, then I am just guessing. Of course, phonics is only one aspect of reading, but it is an essential skill. Students who can decode words have a much better chance at comprehending the text in front of them.

I recall a student who was reading chapter books. Whenever he got to a word he didn't recognise, his eyes would jump to the small picture. This child was unfortunately an instructional casualty of three-cueing. He had inadvertently been taught that he would understand the word if he looked somewhere other than the word. This is exactly the type of reading behaviour that leads to a 'third-grade reading slump'.

Three-cueing is often seen as a hallmark of 'balanced literacy'. Although there is no clear definition of what balanced literacy actually is, it is nevertheless a popular term in Australian schools. It certainly featured prominently in my training as a primary teacher just over a decade ago. One of the texts we were referred to was Fountas and Pinnell's chapter called 'Guided Reading Within a Balanced Literacy Program' (1996). So imagine my surprise when the same authors posted a blog late last year distancing themselves from the term 'balanced literacy'! Unfortunately, this shift away from the balanced literacy label doesn't seem to coincide with any



substantive change in their approach to teaching reading.

Last year, social media erupted when a moderator for Fountas and Pinnell's Facebook group suggested that we should accept that 20% of students will be unable to read proficiently. I am not sure where this figure came from, and Fountas and Pinnell have since apologised. However, to claim that one in five was an acceptable rate of failure caused an understandable outburst. Imagine the outcry if 20% of students didn't have lunch! This equates to over 800,000 current students in Australia. As educators, we should not accept this high number of instructional casualties.

Many parents shared the stories of their children who are instructional casualties of three-cueing. The devastation, heartbreak and illiteracy that are perpetuated by the prevalence of this practice is shocking! Think about your family and friends. How many of them are you willing to allow to be instructional casualties? How can we possibly condemn such a large proportion of them to a life of struggling to read?

Three-cueing, by its nature, leads students to guess at words. This creates instructional casualties who become poor readers. Our children deserve to be taught the skills they need to decode words accurately. Teaching phonics systematically and explicitly as part of our literacy instruction empowers every child to read.

This article originally appeared at https://educationhq.com/news/heartbreak-and-illiteracy-three-curing-creates-instructional-casualties-108331/

James Dobson [@jdtdobson on Twitter] is a Foundation teacher and Literacy Learning Specialist in regional Victoria. He has worked with students from a diverse range of backgrounds in Victoria and the Northern Territory. This has made him passionate about ensuring that literacy instruction is rigorous and robust. James blogs at https://layingthefoundations.weebly.com/

Three-cueing, by its nature, leads students to guess at words. This creates instructional casualties who become poor readers.

Why spelling instruction should be hot in 2022/2023

Current research supports explicit spelling instruction for better readers

J. Richard Gentry

After decades of neglect due to flawed whole language theory, the importance of explicit spelling instruction for reading comprehension is finally getting due diligence in research, paving the way for a resurgence of teaching English spelling in today's classrooms.

The spelling-to-read movement spotlights the importance of spelling for orthographic mapping and spelling's role in automatic word reading which drives reading comprehension. The critical role of spelling for reading is a focus in recent refereed journals in neuroscience and cognitive psychology as well as in recent books by reading scientists and educators (see for example *Gentry & Ouellette, 2019; Moats, 2020; Seidenberg, 2017*). Landmark studies linking the research to practice have appeared in journals such as *Developmental Psychology* and *Neuroimage*. Spelling to read is not only trending in education journals, but in news reports, the media, and with dyslexia advocates and parent groups.

What happened to spelling instruction over the last three decades?

Explicit spelling instruction met its demise with the advent of whole language theory, aspects of which are now wholly debunked by science but regrettably continue to be practised in classrooms. The late Ken Goodman, whom I studied with and greatly admired for many worthy contributions to reading education, such as promoting humanism and equity for all children, respect and advocacy for teachers, support for writing as a process, and other positive ideals, was quite wrong about spelling, phonics and handwriting.

In *What's Whole in Whole Language (1986)*, Professor Goodman catapulted four harmful core educational principles based on flawed theoretical assumptions. These principles have dominated reading education for three decades with perhaps the most disappointing and hurtful being a full-frontal attack on phonics and explicit spelling instruction. The recommendations below from *What's Whole in Whole Language* (1986) are direct and unambiguous:

1. Do not teach phonics explicitly because children will intuit phonics by reading. [A settled body of research says that was wrong.]
2. Do not use spelling books or teach spelling explicitly and systematically. Expect children to pick up spelling skills simply by reading and writing. [A settled body of research says that was wrong.]
3. Do not teach handwriting explicitly. Handwriting instruction is too laborious and impedes written expression. [A settled body of research says that was wrong.]
4. Since literacy develops from whole to part [a false assumption], there is no

hierarchy of sub-skills or logical grade-by-grade sequence. [A settled body of research says that was wrong. As it turns out, serial sub-lexical skills are foundational for the development of reading brain circuitry.]

These four debunked principles must all be addressed to improve reading instruction moving forward. With much due respect, I am unapologetic for focusing on the four whole language signature missteps because all four are simple to correct. Schools and districts that continue to embrace the four misguided principles or use published curricula that embrace them (see the list below) must simply acknowledge these errors and correct them. It's not complicated.

In a nation and elsewhere where 60% or more children by standardised measures read below proficiency, there is a moral imperative to correct these missteps, especially in schools with vulnerable populations of children who struggle with literacy. The importance that children be taught spelling for reading is incontrovertible.

Sustaining nuggets of wisdom from notable scientists and researchers on the role of spelling for reading

- From cognitive psychologist Dan Willingham, in *Raising Kids Who Read* (2015). Professor Willingham writes that good readers all read by matching what's on the page with spelling images in the brain.

  > *"[U]sing word spellings to read requires very little attention, if any. You see it [the word on the page] in the same way you just see and recognize a dog … As your child gains reading experience, there is a larger and larger set of words that he can read using the spelling, and so his reading becomes faster, smoother, and more accurate. That's called fluency."* (Willingham, 2015, p. 133)

- From reading scientist and thought leader in the science of reading Professor Mark Seidenberg, in *Language at the Speed of Sight: How We Read, Why So Many Can't, and What Can Be Done About It* (2017):

  > *"In neuroimaging studies, poor readers show atypically low activity in a part of the brain that processes the spelling of words."* (Seidenberg, 2017, p. 10)

- From Professors Gene Ouellette and Monique Sénéchal's landmark study in *Developmental Psychology* (2017):

  > *"[S]pelling practice transfers to reading improvement in general; recent meta-analyses have shown that spelling instruction benefits word reading across the school years* (Graham & Hebert, 2011)*, and also specifically in the elementary years* (Graham & Santangelo, 2014)*."* (Ouellette & Sénéchal, 2017, p. 29)

- From learning disabilities experts, professors Nancy Mather and Lynne Jaffe:

  > *"Spelling […] requires a much more rigorously established memory of the sequence of letters in a word, because it requires the student to recall the sequence in its entirety. Reading requires orthographic recognition, while spelling requires orthographic recall and application."* (Mather & Jaffe, 2021, p. 15)

- From renowned researcher, author, staff developer and spelling advocate Professor Louisa Moats:

  > *"As a general guide for covering the proposed content [a grade-by-grade spelling curriculum] about 15–20 minutes daily or 30 minutes three times per week should be allocated to spelling instruction. Application in writing*

In a nation and elsewhere where 60% or more children by standardised measures read below proficiency, there is a moral imperative to correct these missteps, especially in schools with vulnerable populations of children who struggle with literacy. The importance that children be taught spelling for reading is incontrovertible.

And these are the tip of the iceberg!

Literacy program	% of teachers using (K-2)*	Grade-by-Grade Explicit Systematic Spelling Instruction
Fountas and Pinnell *Leveled Literacy Intervention*	43% using for supplemental intervention	Inadequate assessment and targeting of spelling skills.
Houghton Mifflin Harcourt *Journeys*	27% using as core reading program	The spelling component lacks a robust evidence base and is buried in too much stuff leaving inadequate time for spelling instruction.
Houghton Mifflin Harcourt *Into Reading*	17% using as core reading program	(Gentry's review of Grades 4 and 5) -A weekly list of words to be sorted by syllables one day per week -No research-based spelling instruction Series materials make this disclaimer: "Our decoding instruction helps learners apply their orthographic knowledge to the successful identification of unfamiliar words, *but our spelling instruction does not carry the expectation that they will be able to spell such words consistently and correctly.*" (italics added) Gentry: This is the worst spelling component in a core reading program that I have reviewed in my career. It gives a false impression that teachers are teaching spelling. The syllable sorting spelling curriculum is harmful to children.
Calkins *Units of Study for Teaching Reading Series*	16% using as core reading program	No grade-by-grade spelling curriculum or structured literacy instruction.

*EdWeek Research Center (Swartz, 2019). Table by J. Richard Gentry. [Editor's note: The above figures are from the U.S.]

> *should be varied and continual.*" (Moats, 2005/2006, pp. 42–43).

There must be a reckoning among educators and publishers in order to advance equity and better literacy outcomes, especially for vulnerable populations at risk for literacy failure, including children of colour, English language learners (ELLs), the economically disadvantaged and struggling readers at risk of learning disability who aren't receiving explicit spelling instruction. The major reading programs in the chart above are inadequate for teaching spelling in schools with vulnerable populations. Embrace the spelling-for-reading solution by providing systematic, explicit, structured spelling instruction in a grade-by-grade curriculum.

An *Education Week* analysis of these programs "found many instances in which these programs diverge from evidence-based practices for teaching reading or supporting struggling students" (*Swartz, 2019, p. 1*).

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This article originally appeared in Psychology Today *on 5 January 2021.*

J. Richard Gentry PhD [@RaiseReaders on Twitter] is an independent researcher, author, and educational consultant and a former university professor, reading centre director and elementary school teacher. He is the author of 17 books including the bestseller Brain Words: How the Science of Reading Informs Teaching (Stenhouse, 2019), co-authored with Canadian reading scientist Dr Gene Ouellette. Richard speaks nationally and internationally at educational conferences and blogs for Psychology Today. *He currently resides in Mobile, Alabama, and can be reached at Richard@jrichardgentry.com or through his website www.jrichardgentry.com.*

Review – 'A walk through the landscape of writing: Insights from a program of writing research'

Graham, S. (2022). *Educational Psychologist, 57*(2), 55–72.

Alison Madelaine

The following is a summary of an *article written by Professor Steve Graham* of Arizona State University, published after he won an American Psychological Association (APA) award for Distinguished Psychological Contributions to Education. Professor Graham has researched and published in the area of writing development and writing instruction for over 40 years.

Factors that contribute to children's growth as writers

1 Students' writing knowledge

To write well, students need knowledge about composing their work. This includes knowledge of:

- the functions of different types of texts
- the attributes of written words and sentences
- the processes for planning and drafting
- writing topics.

Graham and others have conducted studies aimed at determining the level of writing knowledge of students with and without learning disabilities (LD). This research was done by interviewing students (asking them questions about writing). Unsurprisingly, the typically developing students had more knowledge about writing than did the students with LD. The typically developing students tended to see writing as more about the process (e.g., planning, revising), whereas the students with LD focused more on transcription (e.g., spelling, handwriting). Subsequent studies found that writing knowledge predicted writing performance, and meta-analyses have found that increasing knowledge of writing can enhance writing quality, but that more research is needed to determine how and when this occurs.

2 Strategic writing behaviour

Although there are many ways to approach a writing task, skilled writers have a set of strategies in common (e.g., goal setting, planning, revising). Graham and his colleagues have conducted research on the strategic writing behaviours of students with writing difficulties. It was found that those students did not plan their writing or write for very long. They seemed to view writing as a single process involving mainly content generation. Other studies looked at how well the use of strategic writing behaviours predicted quality of writing. For example, in one study, the quality of students' planning was assessed in addition to their written text, and it was found that planning scores were particularly predictive of writing scores. Research in this area has led to the development of an approach known as Self-Regulated Strategy Development (SRSD), and is probably the most experimentally investigated writing intervention, with high effect sizes found for SRSD in meta-analyses.

3 Writing skills

This includes skills such as spelling, handwriting and typing. If students have difficulty with these transcription skills, their writing can be negatively affected because students must devote more cognitive resources to these skills rather than to composition. Sentence construction skills are also important to writing. Some studies, for example, have demonstrated that sentence-combining instruction can improve the sentence construction ability of both more and less skilled writers. Handwriting fluency has been found to predict writing quality, as has spelling (although the latter is a less reliable predictor and more research is needed).

4 Motivation

Findings from studies on motivation and writing are less consistent than for knowledge and skills. Some studies have found that motivational beliefs were strong predictors of writing performance, while others have provided very limited evidence that motivational beliefs predict writing performance. The literature on interventions aimed at increasing motivation to write is quite limited; however, one meta-analysis by Graham and colleagues found that studies examining the effect of improving writing motivation on writing quality had a large effect size of 1.07. More research is needed in the area of motivation to write.

Connections between writing, language, reading, and learning

1 Language and writing

A meta-analysis comparing the writing skills of students with and without language impairment found that students with language difficulties scored lower on measures of writing quality, writing output, spelling, grammar and vocabulary. This research supports the contention that writing is a language-based activity and that difficulties with language have a detrimental effect on children's writing. More research is needed in this area, especially studies examining the effect that language interventions have on children's writing.

2 Writing and reading

The research of Graham and colleagues has been aimed at providing support for the theoretical contentions that reading and writing are connected and that teaching and engaging in one skill (reading or writing) enhances the other. As an example, a review comparing students with and without reading difficulties found that those with reading difficulties' skills in spelling, written vocabulary, syntax, writing quality, sentence creation, organisation of content, writing output and handwriting were lower than their age-matched peers. A second comparison was conducted in which students with reading difficulties were matched with younger students at the same reading level. For this comparison, the only difference between the two groups was in spelling. This review provides support for the contention that capable readers are better writers than weaker readers.
Other research in this area has investigated the effects of reading instruction on writing and vice versa. For example, one study looked at whether writing practice and writing instruction enhanced reading. Students in Years 2 to 12 wrote about material they read and their reading comprehension improved. Reading instruction can also have an effect on writing. A meta-analysis by Graham and colleagues found that studies involving the teaching of phonological awareness, phonics, and comprehension enhanced writing. Unsurprisingly, studies where instruction in reading and writing was combined enhanced both reading and writing!

3 Writing and content learning

Writing can result in increased incidental learning because when students write about what they are learning, they need to synthesise information as they convert ideas into text. Also, learning can occur when students retrieve writing ideas and content from episodic memory or external sources and evaluate and manipulate these in working memory. Graham and colleagues conducted a meta-analysis examining writing-to-learn in science, social studies and maths. Writing-to-learn was effective with school students of all ages and across all three content areas.

The identification of effective writing practices

Based on many studies and meta-analyses, Graham's recommended teaching practices are:

1. Students need to read and write. This includes such practices as extra reading and writing, writing about reading and writing-to-learn. This is the 'doing' part of writing.
2. Teachers need to teach writing and reading. This encompasses a long list of different aspects of writing that need to be explicitly taught to students. Some examples are sentence construction, strategies for planning, revising and editing,

"Better writing instruction depends on systemic changes which involve public perceptions, rock solid commitments by political and education systems to its value, and teachers who are prepared and want to teach it."

spelling, strategies for paragraph writing, handwriting, vocabulary, phonics and comprehension.

3 Students should receive feedback. This includes adult feedback, peer feedback (giving and receiving) and self-assessment.

4 Teachers should provide a supportive writing community – one where students are supported and feel able to take risks in their writing, and where they can be enthusiastic and motivated writers.

Writing instruction in schools

Surveys from around the world investigating teachers' writing practices have indicated that *some* teachers provided good, research-based writing instruction and devoted enough time to writing instruction and writing, but *most* teachers did not provide a solid writing program, did not devote enough time to writing instruction, and their students did not spend very much time writing. Some reasons have been suggested for this state of affairs, including a belief that good reading instruction is all that is needed to become a good writer, that good writers are 'born and not made', that writing is not as important as other subject areas and that writing is acquired naturally and therefore does not need to be taught. Other reasons may be related to minimal requirements by education authorities, a low emphasis on writing in initial teacher education programs and teacher's beliefs about writing.

According to Graham,

> *"Better writing instruction depends on systemic changes which involve public perceptions, rock solid commitments by political and education systems to its value, and teachers who are prepared and want to teach it. The knowledge to make this happen exists but it is not clear if there is the will to do so." (p. 67)*

Graham concludes by stating that there is a lot we know about how writing develops and how best to teach it, but there is still a lot of research to be done, including investigating the role of new writing technologies as they develop.

If you would like to hear Professor Steve Graham speak about writing development and teaching writing, he recently presented a public seminar for the Macquarie University Centre for Reading. You can access that presentation here.

Dr Alison Madelaine is a Senior Research Fellow within the MultiLit Research Unit at MultiLit Pty Ltd. She is also Clinical Director of the MultiLit Literacy Centres and has had hands-on experience teaching students with reading difficulties in Australia and South Carolina, USA. She has provided consultation around the delivery of MultiLit's literacy programs to disadvantaged students in several projects, including those in Cape York, inner-city Sydney, and Sydney's western suburbs.

Once more for the people at the back

Pamela Snow

It's been a busy few weeks with respect to discussion and debate about literacy in the public domain. I have been interviewed a number of times by print and electronic media. Inevitably, only segments and sound bites of my comments are used, so there's not much nuance in the discussion.

Two key events in Victoria have been catalysts for this media activity:

1. The announcement by the Victorian Department of Education that a Year 1 Phonics Screening Check will be mandated in this state as of 2023. Details of this plan are still to be announced, but I am at least assured that it will include pseudo-words, which are essential, as I will explain in more detail below.
2. The release by the state opposition of its literacy policy, which privileges systematic and explicit reading instruction, accompanied by well-resourced teacher professional learning and an increase in the speech-language pathology workforce in schools to support the development of children's oral language skills and their reading progress.

My tracking of the mainstream and social media coverage of these announcements flagged the usual misconceptions, deliberate or otherwise, so I thought it might be helpful to lay some of these to rest in one place.

As you read through these points, give some thought to *Chesterton's Fence*, a concept I first encountered when listening to an interview with Stephen Fry. The Chesterton's Fence parable reminds us that taking things away (when we didn't understand why they were there in the first place) is easy. Reinstating them is infinitely more difficult.

Myth/misconception	Setting the record straight
The debate is about 'phonics vs. whole language'.	I have *blogged about this previously*. In 2022, if you're still debating this topic as phonics vs. whole language, then you're a few seasons behind on the storyline. The debate now centres around the translation of cognitive psychology-informed 'learning science' into the early years reading space, plus the level of knowledge that early years teachers have about the nature of the English writing system. The contemporary debate is also concerned with teachers seizing their professional integrity from the clutches of bureaucrats, education academics and union officials and calling time on being sold content and pedagogies that are not fit for purpose. The game is up on teachers being the last to be invited to the knowledge-about-reading party and they are fit to riot on the streets about the fact that they have had to fight their way in.

Myth/misconception	Setting the record straight
The science of reading is a 'one size fits all' approach.	This is one of those hackneyed clichés that immediately signals that the speaker or writer knows nothing about the science of reading, and less about how to challenge it. The science of reading, like the science of anything, is a body of work, amassed over several decades through the painstaking efforts of researchers from a range of disciplines, using a variety of methodologies. Like the science of how to treat brain tumours, or the science of improving electrically powered vehicles, the science of reading lumbers along, with different branches and facets, and different internal debates, as it should. I suggest you ask those who reject the science of reading if they also reject the science of perception, the science of memory, the science of language, and the science of procedural learning. If not, why not? If anyone can point me to a body of scientific evidence that supports the generic, eclectic collection of approaches that loosely bundle under the heading 'balanced literacy', I will cancel my weekend plans and read it. My weekend plans are safe though, because such a body of evidence does not exist. Inexplicably, however, in 2022, balanced literacy continues to be the approach supported and endorsed by many education jurisdictions in Australia and in other English-speaking countries. I wonder how much of this support for the balanced literacy status quo can be traced to an embarrassed and self-conscious unwillingness to invest in teacher knowledge and skills at the pre-service and in-service levels, so that our teaching workforce is genuinely 'classroom ready' on exit from university? 'Balanced literacy' sounds so reassuring and complete. Its survival has been propped up by the fact that it is seemingly 'good enough' for more than 50% of students, even if it does look the other way and shrug its shoulders at those who don't achieve benchmarks after three years of formal instruction. I wonder whether balanced literacy proponents would be comfortable going into a class full of fresh-faced five-year-olds, randomly selecting 10–20% (at least) and sending a note home as follows: *Dear parents* *We use an approach to reading instruction that only works for some students. We're sorry to inform you that your son or daughter won't become a proficient reader. We imagine this is going to cause you and them considerable grief and will cast a long, dark shadow over their futures – academically, vocationally and on their mental health. We don't intend to do much of any substance about this, but now you're aware of it, it's basically your responsibility.* I notice some in the academy are now arguing, disingenuously of course, some version of: "balanced literacy includes systematic phonics". Sorry, but you can't have it both ways. You can't claim that it's better for children to learn the code via indirect immersion in beautiful children's literature, and then in the next breath claim that this instruction is 'systematic'. It just isn't. Teachers know this and parents know it. In hindsight, students know it as well, but it's too late then.

Myth/misconception	Setting the record straight
Children should not be asked to read pseudo-words as part of a phonics screening check.	Sigh. Put the kettle on for this one. Writing systems are codes for spoken language. In English we have an imperfect code, in the sense that it is not blessed with 100% transparency, like, for example Italian, Spanish or Finnish. This reflects the history of English and its rich borrowings from other languages of not only vocabulary items (words) but also their spellings. Pronunciation is a much less stable player than spelling, and its propensity to slip-slide around (over time and across geographic regions) can make spelling look like the culprit for the challenges in reading and writing English, where that is not always the case. All of this means that learning the code and its intricacies takes longer for children learning to read in English and it is an even riskier endeavour when they are being taught by *teachers who themselves, have not been taught about the intricacies of their writing system* (decades of whole language instruction and eroded content in initial teacher education can take a bow here – see Chesterton's Fence, on page 21). So – what do pseudo-words have to do with the nature of the English writing system? Pseudo-words are words that are *'phototactically legal'* but are not currently regarded as 'real' words. Now we need to bear in mind here that the distinction between 'real' and 'not real' words in English is much fuzzier than some might think. Is 'google' a word? What about 'selfie'? 'Mansplain'? Language is dynamic because it belongs to its users, so there is not an arbitrary, black and white distinction between 'word' and 'non-word'. That's one of the reasons we are not still using Samuel Johnson's dictionary – it does not contain the words that have come into English since its publication. Lexicographers have the fun job of tracking changes in language over time and ensuring that new editions of dictionaries keep up with usage changes that have become so commonplace that they need to be recognised in new editions of dictionaries. Further, to a young child, whose lexicon still has tens of thousands of words to be added, a real word may be judged by them as a non-word, simply on the basis that they have never heard it before and so have no reference point for it. We also need to remember that if it's having children read the work of high-quality authors that we're after, they will have to be able to decode through non-words to engage with these texts – think Lewis Carroll, J.K. Rowling, Dr. Seuss, Julia Donaldson, Spike Milligan … the list goes on. So – when we ask a child to decode a pseudo-word, we are simply giving them an opportunity to demonstrate a transferable skill they have learnt in the classroom – the skill of decoding through an unfamiliar word and 'getting it off the page'. This is what children need to do with all unfamiliar words so that after a few exposures, the word is 'knitted in' (orthographically mapped) in their long-term memory, and they can say it, spell it and explain at least one meaning for it. Its identification then contributes to the overall task of reading comprehension. Making a fuss about asking children to read pseudo-words is as logical as protesting about them being asked to wash their hands before a meal. It doesn't make sense and it's not in the best interests of the child.
It is insulting to teachers to suggest that reading instruction needs attention.	What's insulting to teachers is withholding decades of knowledge about oral language and the nature of the English writing system from them and then looking the other way when large percentages of children fall further and further behind as they progress through the year levels, in plain sight of their perplexed, often guilt-ridden teachers. I wouldn't mind a dollar for every teacher who has written to me or approached me at a school or a conference to say: "I am wracked by guilt when I think of all those children I could have taught to read if only I knew then what I know now." Why should teachers have to pay for education degrees that are devoid of evidence-based reading instruction content and then have to self-fund their own learning expeditions, while simultaneously processing their anger and guilt about their inability to deliver on the most basic community expectation of their degree – that they can teach a child how to read? Universities need to stop gaslighting initial teacher education candidates and pretending that they are preparing them to teach reading. Overwhelmingly, they are not.

Myth/misconception	Setting the record straight
Teachers are professionals and should be allowed to exercise their own judgement and preferences about how they teach reading in their classrooms.	This is another put-the-kettle-on moment. I have *blogged previously about professionalism* and education. Some in education like to promulgate the myth that the lucky folk in other professions, such as medicine, psychology, engineering and accounting get to make their own decisions about how they practise their craft. Of course, they do have latitude to exercise discretion here and there, but in the main, being a professional means signing up for a highly constrained form of public accountability. It does not mean: "Don't question me. Just let me get on with this in my own way." It does not mean that in education either – the work of educators would have very low currency in the eyes of the community if it did. Many teachers and school leaders are seizing the accountability stick and using it to drive the agenda around student outcomes. Would-be spokespeople for teachers, such as union leaders and education academics, will do more favours to teachers by showcasing accountability than they will by marching the 'choose your own adventure' circus into town. Professionalism in other professions also means accountability and public scrutiny, which can involve periods of suspension, mandated re-training, and even de-registration for failure to practice at the expected standard. People who speak for teachers can't cherrypick the parts of professionalism that are appealing (like making autonomous decisions) and shirk the undesirable parts, like being held to account for poor student outcomes.
Improving decoding skills does not transform reading comprehension skills.	Decoding has been described as a constrained skill; there's a fixed number of phoneme-grapheme correspondences in English and once these have been encountered and learnt (stored in long-term memory), they are available to assist students to decode new, unfamiliar words. As students' vocabularies and knowledge of morphology grows, this also assists them to find their way through polysyllabic words, which in many cases are 'higher-order' Tier 2 and Tier 3 vocabulary words, if we apply frameworks such as those described by *Isabel Beck and her colleagues*. Comprehension, on the other hand, is an unconstrained skill. It depends on a large number of 'moving parts' in written text and the ability to decode is simply the non-negotiable entry point. Students then need to grapple with the fact that the meanings of words change according to context and as function of polysemy. They need to understand how syntax works to convey meaning – sometimes by embedding ideas within each other, sometimes by changing word order (active to passive), and sometimes by assembling long, complex sentences containing multiple ideas. Students need to understand figurative language, of which there are many varieties in English, and they need to bring *background knowledge* to the task of reading comprehension. Reading scientist Nancy Lewis Hennessy, in her 2021 text *The Reading Comprehension Blueprint*, likens this process to a factory assembly line. When one component or process is missing or faulty, then the product that rolls off the end of the assembly line will also be incomplete or faulty. So too it is with the role of decoding ability and reading comprehension. If skills in decoding are improving but reading comprehension skills are not, then we have only attended to part of the problem and we need to turn our attention to the other facets of language comprehension that support students to understand what they are reading. Saying that "improving phonics doesn't fix reading comprehension" is akin to saying "putting a steering wheel in the car doesn't make the car drive safely" if the other components are not fit for purpose and properly installed. But try driving your car without a steering wheel.
Some children just can't or won't learn to read. We have to accept this inevitability.	I am always amazed when I hear some version of this assertion. *Cognitive science research* suggests that we should be successful in teaching 95% of children to read yet in reality we know *we fall well short of that bar*. There is no moral or ethical defence for designing and maintaining education systems that hardwire a high rate of failure. This is particularly indefensible when the burden of that failure is unreasonably borne by those who are disadvantaged to start off with. If education does not offer a leg-up to children from disadvantaged backgrounds, where will they learn to read? Prison? The unemployment queue?

Myth / misconception	Setting the record straight
Structured explicit reading instruction kills the love of reading.	I am not aware of any actual evidence to support this meme but I have been in enough classrooms delivering structured, explicit literacy instruction to have seen the engagement and joy of achievement displayed by children as they master the code and gain independence as readers. I have done extensive research on populations of adolescents who are struggling readers and I am pretty sure that if they had sufficient literacy skills to write a comment on this blog post, it would say that what killed their love of reading was being unable to read.
A school's reading data is mainly a reflection of the socio-economic status of its parent community.	Family socio-economic status is certainly a strong contributor to the academic achievements of children – no surprises there. When children enter school, however, we should see a gradual diminishing over time of the influence of the home language and literacy environment and an increase over time of the influence of the instructional environment. The quality of the instruction that students are exposed to is the one lever that teachers, schools and school systems can pull – if they have the will and conviction to do so. This is evidenced when we see *reports of high-achieving low-SES schools*. Their communities have not sent them 'better children'; their teachers have shifted their practice to provide better instruction. This does not necessarily require more funding, but it does require a re-direction of funds.
People who are not classroom teachers have no seat at the table on commenting on reading instruction.	This pot shot is usually levelled at speech-language pathologists (SLPs), who are told to "stay in their lane" by some who are misguided or ill-informed about the *scope of practice of the speech-language pathology profession*. Reading is a language-based skill and SLPs are experts on language, as part of the human communication system, so it is not surprising that they (we) are working in schools in growing numbers. Not only are SLPs in schools in growing numbers, but they are also stepping up to support initial teacher education. The La Trobe School of Education, of which I am a part, has just appointed its fourth SLP to its academic staff. You are going to need to get used to SLPs in the reading space as that horse has already bolted. Such is the nexus between teaching and speech-language pathology that there is a growing number of *practitioners who are qualified in both disciplines*. Interestingly, they typically report that what they know about reading, they learnt in their speech-language pathology degrees, not in their initial teacher education. The claim that only people who are classroom teachers have anything of value to say about classroom teaching reflects poorly on those who make it and shifts the focus from the educational needs of children to the professional egos of adults.

Meanwhile, in the midst of all of this media interest, on Saturday 1 October 2022, I delivered a keynote presentation at the Sharing Best Practice conference in Ballarat, that was organised by Canadian Lead Primary School principal Sue Knight and her hard-working, knowledgeable and committed local team of science of reading change-makers. This was a sold-out event attended by 250 primary and secondary teachers from all over Western Victoria and from further afield. One of our La Trobe Language and Literacy Master of Education students drove for 14 hours from central NSW to attend.

Teachers giving up the final Saturday of their school holidays to attend science of learning events sends a very strong signal to their respective sectors: we want to do this better, and we want to be supported in doing so. Now. The direction of travel is clear. I hope education leaders and policymakers are listening.

The article originally appeared on the authors' blog, The Snow Report.

Pamela Snow [@PamelaSnow2 on Twitter] is Professor of Cognitive Psychology in the School of Education, at the Bendigo campus of La Trobe University. She is also Co-Director of the Science of Language and Reading (SOLAR) Lab in the School of Education at La Trobe University. Pamela is both a psychologist and speech pathologist and her research interests concern early oral language and literacy skills, and the use of evidence to inform classroom practices.

Enhancing orthographic mapping and word learning

Tiffany Peltier

You may have heard of Dr Ehri's theory of orthographic mapping, or the gluing of phonemes to graphemes within words so that the written word is automatically linked to its pronunciation and meaning. This process can involve mapping sounds to print in both phonetically regular words, such as kick (/k/=k, /ĭ/=i, /k/=ck) and words with what we think of as having phonetically irregular parts, such as said (/s/=s, /ĕ/=ai, /d/=d). This process is also said to account for gluing or mapping chunks of words (for example, syllables such as re-, or, -ture) to sound as well, allowing students to recognise parts of longer multisyllabic words.

You may have also heard of *Ehri's phases of sight word learning*, a kind of roadmap which students travel in their journey of learning to decode and spell words and to read words by sight. Here is *a piece by UFLI explaining Ehri's phases* if you can't access the article.

Sight words are any word that a student has learned to read from memory automatically. This includes phonetically spelled words as well as words with irregularly spelled parts. They can be long words or short words. They can be high-frequency or low-frequency words. As long as the student no longer needs to sound the word out, but has seemingly automatic access to its pronunciation, we call the word a sight word, or a word that has been orthographically mapped, for that student. If the word is a sight word, the Visual-Word Form Area, or *the brain's letterbox*, almost instantly connects the printed symbols on the page to its pronunciation as well as meaning.

All of the words on this blog are most likely sight words for you, if you did not need to sound them out, part by part, or guess them based on context. The phonemes (speech sounds) and graphemes (written letter(s) that represent each phoneme) are orthographically mapped, or inextricably linked in your memory system, and the letters on the page are then almost instantly connected to pronunciation and meaning. So how do we help students to become automatic word decoders, orthographically map words, and have seemingly instant access to a large sight word bank in memory?

After a recent discussion, Dr Linnea Ehri wrote up and sent over a document with instructional guidelines that follow from her theory of orthographic mapping and research studies. She gave permission to share this with a wide audience of teachers and stakeholders in order to help increase understanding in the Science of Reading.

Following this article are Dr Ehri's guidelines for improving student sight word learning, or what is also commonly referred to as automatic word recognition, based on her theory of orthographic mapping and studies around reading (all emphasis/bolded words are hers). If you find it helpful, please be sure to share it with your colleagues. I am very grateful for Dr Ehri taking the time to write up these instructional guidelines and make them widely available to teachers and other stakeholders to help us better understand the science of teaching word recognition skills. I would highly recommend reading one of her latest pieces, *The Science of Learning to Read Words: A Case for Systematic Phonics Instruction*. In it, she describes many specific experimental studies testing conditions necessary for optimal word learning.

Another one of her publications, *Orthographic Mapping in the Acquisition of*

Sight Word Reading, Spelling Memory, and Vocabulary Learning, has many more helpful explanations and a table that details the phases of word learning progress.

There are so many fun things to learn about how word-reading develops. Let's keep learning more and more … and keep teaching well!

Dr Tiffany Peltier is the Lead Learning and Delivery Specialist in Literacy for Northwest Evaluation Association (NWEA) in the United States. She brings over 12 years of experience in the education field, serving as an elementary teacher in three different states, acting as an instructional coach to elementary teachers, and teaching undergraduate pre-service teachers within special education, educational psychology, and literacy coursework at Texas A&M, the University of Oklahoma, and the University of Georgia. Dr Peltier has also provided professional learning sessions for various schools and districts, and been contracted with a state department of education to develop and provide Dyslexia Awareness training. She has most recently worked as a research scientist specialising in teacher training, early literacy, and reading difficulties like dyslexia at the Collaborative for Student Growth at NWEA.

Sight word learning supported by systematic phonics instruction

Linnea Ehri

Written language is a human invention. It involves the representation of speech sounds with visual symbols. In English, an alphabetic language, there are approximately 44 unique speech sounds called phonemes. These are the smallest sounds forming spoken words. English phonemes are represented by the 26 letters of the alphabet, either individually or in combination. These alphabetic representations are called graphemes. It may seem confusing that there are 44 unique sounds and only 26 letters. This is possible because some sounds, such as /sh/, are represented by more than one letter. The word shop, for example, has three phonemes /š/ /o/ p/, and three graphemes <SH> <O> <P>.

Before children have acquired knowledge of letters and sounds, they may try to use visual memory for letter or word shape cues to try to remember how to read words. However, this approach is ineffective. Words do not have sufficiently distinctive letters or shapes for readers to be able to read thousands of them using visual memory. To accomplish this feat, they need to possess a powerful mnemonic (memory) system that acts like glue to retain all these spellings in memory so they can read words automatically and spell them accurately.

This mnemonic system entails two foundational skills that beginning readers need to acquire. One is phonemic awareness, the ability to segment spoken words into their smallest sounds or phonemes, and to blend phonemes to form recognisable words. The other is mastery of the major letter-sound (grapheme-phoneme) relationships comprising the writing system. These skills enable children to decode unfamiliar words by sounding out letters and blending their sounds to form words. This knowledge also enables children to store sight words in memory by forming connections between individual graphemes in the spellings of specific words and their respective phonemes in pronunciations, called orthographic mapping. Activation of these connections acts like glue to bond the spellings of words to their pronunciations in memory along with meanings. Once retained in memory, students can look at written words and immediately recognise their pronunciations and meanings. Reading words automatically enables readers to focus their attention on the meaning of the text they are reading while word recognition happens out of awareness. All words that are sufficiently practised, not just high frequency words or irregularly spelled words, become sight words read from memory.

A comprehensive systematic phonics instructional program enables children to acquire the foundational skills needed to build a vocabulary of sight words in memory. It should include the following:

1 **Grapheme-phoneme relations:** Teaching children the major grapheme-phoneme (GP) relationships of the writing system guided by a scope and sequence chart that covers these relationships sequentially during the first year

of reading instruction.

- This instruction can be facilitated by teaching GP relations using embedded picture mnemonics where the shapes of the letters resemble objects whose initial sounds are the phonemes represented by the graphemes (e.g., letter S drawn as a snake symbolizing /s/).
- Learning can be facilitated by teaching letter names that contain the relevant phonemes they symbolise in words (e.g., name of B contains /b/) and teaching children to detect these sounds in the names.

2 **Phoneme segmentation:** Teaching children how to break spoken words into their smallest sounds or phonemes.

- Helping them detect these separate sounds by monitoring their mouth positions and movements as their articulators shift from one phoneme to the next in pronouncing words. Providing mirrors aids detection.
- Once they learn how to represent some phonemes with graphemes, teach children to use these GPs to segment pronunciations containing those phonemes and represent them by writing letters or selecting letter tokens corresponding to the sequence of phonemes. This is an exercise in **writing phonemic spellings**, progressing from initial sounds, to initial and final sounds, to internal sounds in words, each taught to a mastery criterion.
- Once children know a small set of GP correspondences, such as a, m, s, p, f, o, t, they can begin to write phonemic spellings of many words (e.g., mat, pot, Sam, map, mop…).

3 **Decoding:** Once students know the constituent GP relations, teaching them to decode unfamiliar written words by sounding out graphemes and blending them to form meaningful words. This creates grapheme-phoneme connections to retain the words in memory for sight word reading.

- Begin with VC (vowel-consonant) words, then CVC words, each taught until mastery. Begin by teaching a small set of GPs to decode. Gradually teach additional GPs to include in words to decode.
- Begin with continuant consonants (i.e., s, m, n, f, l, r, v, w, y, z) that can be stretched and held. Teach students to decode by sounding out graphemes and blending them to form words without breaking the speech stream (e.g., sssuuuunnn rather than ssss-uuuu-nnnn). Once learned, introduce words with stop consonants (i.e., b, d, g, j, k, p, t). The greater difficulty blending stops without breaks will be surmounted by prior practice with continuant consonants.
- For students who have learned the relevant GP relations, have them practise reading aloud lists of regularly spelled words containing many shared letters to a mastery criterion with corrective feedback (e.g., mat, bit, tab, tub, bet…). This forces students to process GP connections across all positions within words to read them. It promotes the spontaneous activation of GP connections to secure spellings in memory when words are read. It enhances knowledge of the spelling-sound writing system at the level of words.
- Once students have learned multi-letter spelling patterns such as syllables and morphemes, teach them to segment multisyllabic words into these subunits to decode them.

4 **Spelling:** Teaching children to analyse and remember the GP mappings between each grapheme in the spellings of specific words and its phoneme in the pronunciation to form connections and secure the words in memory for sight word reading and for writing correct spellings of words.

- One way to practise spellings of words in steps: 1. Students pronounce a word and count the phonemes they detect using sounds, mouth positions and movements. 2. Students view its spelling, match up its graphemes to the phonemes they detected, and reconcile any extra or unexpected letters (e.g., they are silent, part of a digraph). 3. The words are covered and students recall their analyses to write the words from memory.
- For irregularly spelled words, partial connections can be formed linking the regularly spelled graphemes and phonemes (e.g., S and D in said, all but the S in island).
- Once students learn multi-letter spelling-sound units, they can use these to form connections between spellings and pronunciations and store words in memory, for example, morphemic units (e.g., -ED, -TION, -MENT), and syllabic units (e.g., EX-CELL-ENT). This helps in learning multisyllabic words.
- Special spelling pronunciations can be created to enhance the mapping relationship between spellings and pronunciations to store words in memory (e.g., pronouncing chocolate as choc – o – late).

5 **Pronouncing words:** Making sure that beginning readers read words aloud as they are reading text, particularly words that they haven't read before. This enhances the likelihood that grapheme-phoneme connections are activated and spellings become bonded to pronunciations in memory for sight word learning compared to reading words silently.

6 **Text reading practice:** Providing plenty of practice reading text at an appropriate level of ease. This is essential for activating and connecting meanings to the spellings and pronunciations of sight words in memory, particularly words whose meanings are activated only when they are read in context (e.g., was, said, held, with).

Dr Linnea Ehri is Distinguished Professor Emerita, Educational Psychology, CUNY Graduate Center. She has published research on how children learn to read, effective reading instruction, and causes of reading difficulty. Her findings reveal the importance of students acquiring grapheme-phoneme knowledge, phonemic awareness, decoding skill, and orthographic mapping to read and spell words from memory. Her alphabetic phase theory portrays the course of development and instruction to promote growth in word reading and spelling. She served on the National Reading Panel and was president of the Society for the Scientific Study of Reading. She has received research awards from AERA, ILA, LRA, LDA, AIM, and SSSR.

Does The Writing Revolution work?

Damon Thomas

In 2017, Judith Hochman and Natalie Wexler published *The Writing Revolution* (TWR): a book outlining a new way of thinking about and teaching writing. A key feature that sets TWR apart from other approaches is its suggestion that school students should only focus on sentence-level writing until this is mastered (i.e., the purposes and structures of written genres should only be added after a lot of work on sentences).

This is a somewhat controversial idea if you believe that the sentences we write are always influenced by what and why we're writing. It also introduces the risk that children will spend much of their primary schooling (and even their secondary schooling, depending on when they start) repeating the same set of basic sentence tasks in every subject. But in taking a developmental approach, Hochman and Wexler argue that learning to write is challenging for young learners and focusing solely on sentences in the beginning greatly reduces their cognitive load. Hochman and Wexler say you can't expect a child to write a strong text, let alone a strong paragraph, until they can write strong sentences. A brief document has been published on the TWR website outlining the theoretical ideas that underpin the approach, which you can read about *here*.

As I mentioned in *my last post on TWR*, there haven't been any research studies or reports to verify if teaching the TWR way enables or constrains writing development … until now.

A reader named 'Rebecca A' left a comment on my last post about TWR to say she'd found a report by an independent research and evaluation firm (Metis Associates) into the efficacy of a TWR trial in New York. The firm partnered with TWR in 2017 and spent some years evaluating how it worked with 16 NYC partner schools and their teachers. Partner schools were given curriculum resources, professional development sessions in TWR, and onsite and offsite coaching by TWR staff.

Evaluating TWR

Metis Associates were interested in TWR writing assessment outcomes, outcomes from external standardised writing assessments and student attendance data. They compared the writing outcomes of students at partner schools with the outcomes of children at other schools. Teacher attitudes were also captured in end-of-year surveys.

This report did not go through a rigorous, peer-reviewed process, but if you are interested to know if TWR works, it's probably the best evidence that's currently out there. Also, keep in mind that the partner schools were very well supported by the TWR team with resourcing, PD and ongoing coaching. In that sense, you might consider this a report of TWR under ideal circumstances.

If you work at a school using TWR or if you're interested in the approach, I'd recommend reading the full report *here*. I will summarise the key findings of the report in the rest of this article.

Key finding 1: Teacher attitudes

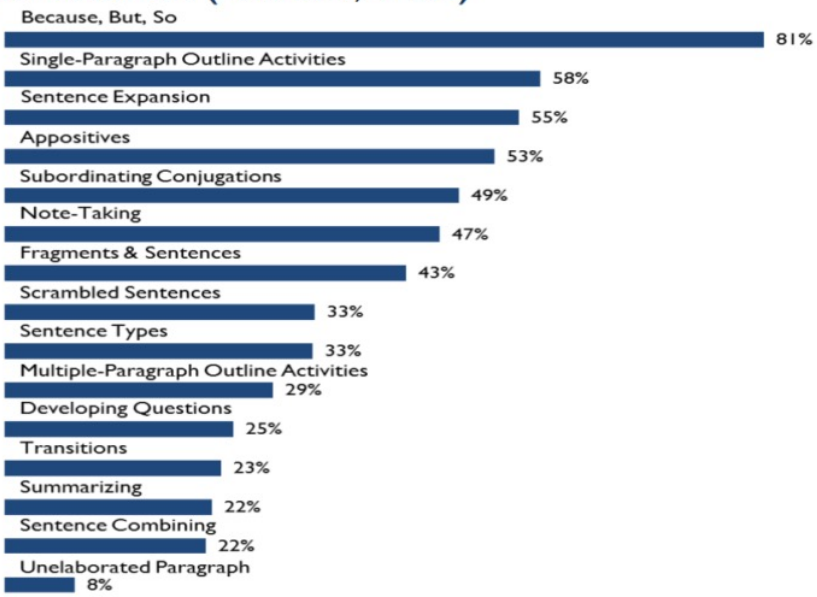
Teachers at partner schools reportedly found the TWR training useful for their teaching and got the most value from the online TWR resource library. School leaders liked being able to reach out to the TWR team for support if necessary. Some teachers wanted more independence from the strict sequence and focus of TWR activities. Most, though, found the approach had helped them to teach writing more effectively.

Key finding 2: Impact of TWR on student writing outcomes

But what about the development of students' writing skills? TWR seems to have made a positive difference at the partner schools. TWR instruction helped students in each grade to advance somewhat beyond the usual levels of achievement. It's not possible to say much more about this since the presentation of results in the report is quite selective and we only see how the partner schools compared with non-partner schools for certain statistics, like graduation rates and grade promotion rates, which are likely to be influenced by all sorts of factors. The one writing assessment statistic that does include comparison schools is for the 2019 Regents assessment for students in Years 10, 11, and 12. In this case, students at TWR schools did better in Year 10. Results between TWR and comparison schools were similar in Year 11, while comparison schools did better in Year 12. So, a mixed result. Being behind

It also suggests that careful attention should be paid to the specific TWR strategies that dominate classroom instruction if students are to get the most out of it.

Figure 4: Which specific strategies/activities did you use most frequently (2x per week) in your classroom? (2018-2019, N=306)



Source: Ricciardi et al.'s (2020) evaluation of TWR in partner schools

other schools is not really an issue if everyone is doing well, but it's not immediately clear from this report how these results compare with grade-level expectations or previous results at the same schools (see Figure 4 opposite).

Something that might explain the mixed outcome for senior secondary students is the tendency for teachers at partner schools to favour the basic sentence level strategies over paragraph or whole text/genre strategies in their teaching. Partner schools taught TWR in Year 3 through to Year 12, and 81% of teachers reported teaching the 'because, but, so' strategy regularly (i.e., more than two times per week). By comparison, evidence-based strategies like sentence combining were far less commonly taught (i.e., regularly taught by 22% of teachers). This suggests that it's important for schools using TWR to be systematic and intentional about the strategies taught and to ensure that educators aren't spending longer than needed on basic sentence-level activities. This would mean educators can get the most important of what TWR offers, which I would argue comes with the single and multiple paragraph outlines and genre work.

When only looking at partner school outcomes, the picture looks positive. The report shows percentages of students performing at Beginning, Developing, Proficient, Skilled, and Exceptional levels at the beginning and end of the year. At each partner school, percentages are all heading in the right direction with many more proficient and skilled writers at the end of the evaluation.

Conclusion

To summarise, in offering select outcomes and comparisons only, and in using metrics that aren't entirely clear, the report highlights the need for rigorous, peer-reviewed studies to better understand how TWR works for different learners and teachers in different contexts. Despite its limitations, the report points to positive outcomes for the new approach to teaching writing. This is good news for the schools out there that have jumped on board the TWR train.

It also suggests that careful attention should be paid to the specific TWR strategies that dominate classroom instruction if students are to get the most out of it. If you are using the TWR approach, my advice would be not to spend a disproportionate amount of time on basic sentence work from the middle primary years, since well-supported approaches like Self-Regulated Strategy Development (SRSD) and genre pedagogy have shown students can (and should?) be writing **simple** texts that serve different purposes from a young age.

I remain greatly intrigued by TWR. It turns the writing instruction game on its head and has made me question whether other approaches expect too much from beginning writers. Its approach seems to line up nicely with cognitive load theory, in gradually building the complexity and expectation as learners are prepared for it. There's a lot at stake though if this specific combination of strategies doesn't actually prepare students for the considerable challenge of genre writing in the upper primary and secondary school years. You could follow its strategies diligently across the school years but inadvertently limit your students' writing development (in time, more research will tell us if this is the case).

I realise it's anecdotal, but my seven-year-old son (just finished Year 1) and I have been talking about argumentative/persuasive writing at home for the last few weeks and the discussions we've had and the writing he's done as a result have been incredibly satisfying for both of us. To think that he should be limited to basic sentence writing and not think about and address different purposes of writing (like persuading others about matters of personal significance) for years into his primary schooling wouldn't sit well with me after seeing what he's capable of with basic support grounded in a firm knowledge of language and text structures and encouragement.

It's also possible to see how students who struggle badly with writing could benefit from practice with basic sentence writing before much else. It was in a context filled with struggling writers that TWR was first conceived, and there it may be most useful.

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Damon Thomas [@DamonPThomas on Twitter] is a senior lecturer in literacy education at the University of Queensland. His current research interests include writing development, pedagogy, and assessment; systemic functional linguistics; argumentation; and dialogic pedagogies. Before starting his academic career, Damon was a primary school teacher in Tasmania.

Benchmarking assessments and levelling should be consigned to history

Jennifer Buckingham

In Episode 5 of Emily Hanford's podcast *Sold a Story,* there is a discussion about a question that comes up often: **are benchmarking assessments and levelled texts scientific evidence-based approaches to reading instruction and intervention?**

The short answer is no. Benchmarking assessments are a form of assessment called an Informal Reading Inventory (IRI). They are not standardised and publishers do not always evaluate and report their validity and reliability, and those that do often have significant caveats (*Spector, 2005*; *Nilsson, 2008*; *Nilsson, 2013*). Reliability refers to the stability, or consistency, of test scores; validity refers to the test itself and how well the test measures what it claims to measure.

Studies from a team of researchers at the University of Minnesota, Minneapolis, have shown that the Fountas and Pinnell Benchmarking Assessment System is not a reliable measure of reading ability or reading progress. (Both papers summarised below can be accessed via Researchgate).

In *Parker et al. (2015)*, second and third grade students were given an *oral reading fluency* (ORF) assessment and an IRI (in this study, the Fountas and Pinnell Benchmark Assessment System) to compare the diagnostic accuracy of the two assessments for identifying students considered at risk for failing a district-wide reading assessment.

Findings included:

- ORF and IRI results were correlated
- "However, ORF demonstrated higher diagnostic accuracy for correctly identifying at-risk students and resulted in 80% correct classification compared to 54% for the reading inventory data".

A secondary question addressed in these studies is: **is assigning a book 'level' based on the results of benchmarking assessments a valid way to guide and build students' reading ability?**

Once again, the short answer is no. The 'text gradient' levelling system for books is also highly variable and unreliable.

In *Burns et al. (2015),* second and third grade students read for one minute from three levelled texts that corresponded to their instructional level as measured by an IRI assessment (Fountas and Pinnell Benchmark Assessment System), and the percentage of words read correctly was recorded (using a words correct per minute [wcpm] measure).

The Fountas and Pinnell Benchmark Assessment System assigns a 'letter level' that corresponds to a set of books at that level.

Findings included:

- "[T]he categorical scores (frustration, instructional, and independent) for the three readings agreed approximately 67% to 70% of the time, which resulted in a kappa estimate of less than .50. Kappa coefficients of .70 are considered strong indicators of agreement."
- "One quarter of the time, the students read 93% to 97% of the words correctly when reading the book that was rated at their instructional level, and students who were struggling readers frequently failed to read at least 93% of the words correctly when they were reading from a book designated by an IRI to provide an appropriate level of difficulty."

There is noticeable variation in books within a single level, and no quantifiable or codifiable gradation between levels in even one levelled book series. There is no consistency in the levels among different series of levelled books. Therefore, the 'level' of a book is almost meaningless. In sum, if the benchmarking assessments have a high margin of error, and the system of book levels is also imprecise, we can't have much confidence that either is a good indicator of a student's reading ability and they are therefore a poor basis for instruction.

Furthermore, some researchers (e.g., Tim Shanahan) question the whole premise of frustration/independent/instructional level as a useful method of text selection. So, we could think of benchmarking and levelling as a waste of time either way, whether it's a reliable system of text-student matching or not.

- Shanahan, T. (2014). Should we teach students at their reading levels? *Reading Today*, September/October 2014.
- Shanahan, T. (2020). Limiting students to books they can already read: Why it reduces their opportunity to learn. *American Educator*, Summer 2020.
- Shanahan, T. (2021). What does the Easter Bunny have in common with the independent reading level? *Shanahan on Literacy*, 13 February 2021.

A recent webinar by Tim Shanahan describes a number of studies showing that students had more growth in reading when they read books that were harder than their 'instructional level' (with some cautions and exceptions outlined below). There is evidence that in paired oral reading activities such as dyad reading, it is beneficial for both the lead (higher ability) and assisted (lower ability) student in the pair to read books that are much more difficult than their 'instructional level' (Trottier Brown et al., 2017). Concerns about systems of levelling and text-student matching have also been raised from an inquiry-based perspective (Hoffman, 2017).

This raises the obvious question: **are reading programs that use this benchmarking and levelled text system evidence-based and effective?**

No surprises that the answer is again, no.

Fountas and Pinnell's program is not the only reading program that uses IRI assessments and levelled texts. *PM Benchmark Literacy Assessment* also uses this system of administering IRI assessments and assigning text levels using the well-known PM levels of 1–30 (PM stands for Performance Measurement). Yet, based on the evidence above, it is hard to imagine how reading programs like these could be effective in improving students' reading.

In addition, reading programs that use levelled text are designed around the disproven and ineffective three-cueing system for reading.

An evaluation of *Fountas & Pinnell Classroom* (K-2 and 3-5) by EdReports found that it "does not meet expectations" in all grades because it does not include evidence-based approaches to reading instruction such as systematic and explicit phonics instruction, among other weaknesses.

In Grades K–2, for example:

- It takes an analytic approach to teaching phonics with no evidence-based scope and sequence; only 10 minutes of phonics in a session; phonics is not taught daily; there is

no decodable text.

- No sequence for high frequency words.

In Grades 3–5, for example:

- Text quality and complexity is not appropriate (ironic given the program is text-based)
- Insufficient time on vocabulary and grammar
- Limited word analysis (including phonics)
- Fluency is not part of core instruction
- Writing instruction is intermittent.

According to *Professor Mark Seidenberg*, "Fountas and Pinnell's approach to reading creates learning difficulties for which their curriculum then offers solutions." EdReport's evaluation of Lucy Calkin's *Units of Study* received equally poor ratings for Grades *K-2* and *3-5*.

The Fountas and Pinnell *Levelled Literacy Intervention* (LLI) program also uses the Benchmark Assessment System and *Text Level Gradient*. Two studies of LLI in K-2 that meet the *ESSA* evidence standards had an average effect size of +0.13 on reading outcomes, which is statistically significant but negligibly small. Effective reading interventions achieve effect sizes in the order of +0.39 (*Gersten et al., 2020*).

The big question, therefore, is: **what should be used instead of benchmarking and text levels?**

All students should receive systematic and explicit instruction in the five essential components of reading identified by scientific reading research in the first years of school. This is becoming more widely accepted but a lot of teachers are reluctant to give up benchmarking and levelled texts even if their system doesn't require them. One reason might be that it is a process and a system they are familiar with, and that parents are familiar with, even if they know it's imperfect. Another reason might be that they don't know what to do instead.

In terms of assessment, IRIs and their close cousin Running Records are not fit-for-purpose. They do not give teachers the depth of information they need to make instructional decisions because a) they do not test the reading sub-skills that have been shown to contribute to reading fluency and comprehension, and b) they are not constructed or validated in such a way that allows a student's reading to be compared to their peers or that allows their reading progress to be measured and evaluated against benchmarks for risk. For young readers, alternative assessments should include phonic decoding and oral reading fluency. See the *Primary Reading Pledge* for more details. For older readers, oral reading fluency is still a strong measure of reading progress and highly correlated with comprehension. Reading comprehension assessments are fallible but a well-constructed comprehension assessment that has clear objectives can provide useful information. The new Comprehension section on the *Five from Five website* will have more information on assessment.

In terms of text selection, students who are still learning to decode and read words with automaticity should be using decodable texts for oral reading practice. They should still have access to other books and be engaged in shared reading with a wide range of children's literature and non-fiction for language and comprehension development.

More research is required on text selection for older students without reading difficulties but there are a couple of general guides based on the extant evidence. When students are able to decode proficiently, their choice of texts for oral reading practice should not necessarily be limited to an 'instructional' or 'independent' reading level. (For fluency instruction, it's a different rule of thumb; a text that is too hard will not allow a specific focus on developing fluency). Allowing and encouraging students to read more challenging texts will expose them to more vocabulary and more complex sentence structures, but it is important that this is supported to ensure that they understand what they are reading so that they can learn and improve. Throwing students in the deep end without these supports might be counterproductive (*Amendum et al., 2016*).

It is impossible to explicitly teach all the vocabulary and knowledge that is valuable to students – most of what they learn will be through reading. The task of the teacher is to calibrate instruction and practice so students are reading to learn while they are learning to read and vice versa.

And finally: **what can be done with all the levelled books I have in my classroom or school?**

This has been addressed in previous Five from Five blogs (*here* and *here*) and *Reading Rockets* also has good advice. To summarise, the lowest levels of levelled book series, which are typically predictable texts, should not be given to beginning readers. They can be creatively re-purposed. Other levelled books can just be treated like any other book. Don't rely on the letter or number level of the book and take a more individualised approach to which books will provide a student with a sufficient level of challenge.

Dr Jennifer Buckingham [@buckingham_j on Twitter] is Director of Strategy and Senior Research Fellow at MultiLit.

Weekly spelling lists – are they a good idea?

Alison Madelaine

Good spelling is an extremely important skill for a literate person to possess. Accurate spelling assists readers to understand text they are reading and inaccurate spelling can make a text difficult to comprehend and be judged harshly by readers. The ability to spell well also helps with writing, as it allows the writer to devote more of their mental resources to composition rather than being distracted by how to spell words. Spelling is also important for reading, and vice versa. Reading skills such as phonemic awareness and phonics are necessary for good spelling to develop, and instruction in spelling can result in better reading (*Graham & Hebert, 2011; Graham & Santangelo, 2014; Moats, 2005*).

Over the last several decades spelling has been considered a low curriculum priority (*Pan et al., 2021*; *Sayeski, 2011*). The more mechanical aspects of writing such as spelling and handwriting have been largely abandoned in favour of higher order writing skills (*Joshi et al., 2008*). This has resulted in generations of students leaving school with below satisfactory spelling skills, leading many to consider how spelling should be taught.

Use of word lists

Traditionally, a common approach to the teaching of spelling has involved the rote learning of lists of words, with an emphasis on the visual information each word conveys. In fact, using lists of words to 'teach' spelling has persisted since early in the 20th century (*Pan et al., 2021*). If using this approach, a teacher might prepare a list of words for their students to learn for the week. This is given to the students on Monday, and they are tested on Friday. Spelling word lists may come from other areas of the curriculum, from children's own writing or from a spelling program. During the week, some light teaching may occur to practise these words, for example, copying the words out multiple times or writing the words in a sentence, but essentially there is often little, if any, in-depth instruction around the nature of the English language to assist children in their understanding of how the system works. The main problem with this type of approach is the absence of any real instruction in spelling.

Are lists always a problem?

It is important to note here that it may be a little unfair to completely dismiss the use of word lists as part of spelling instruction. The examples below show three lists of words. In Example 1, the words are seemingly random. The list includes words with many different types of phonological, orthographic and morphological features; for example, there are words with one, two, and three syllables, different digraphs (ee, ou, sh, oo, ck) and different affixes (ed, dis, ing). Lists of words that are completely orthographically unrelated promote rote learning as the main spelling strategy and force children to focus on the visual

features of a word. It is likely that the 'instruction' that would accompany this list would involve writing the words many times using the Look, Say, Cover, Write, Check method, for example.

Example 1: Seemingly random words
rapid
jumped
disagree
outing
mushroom
neck

In Example 2, the words are organised according to a theme. Again, the words are orthographically unrelated and the list contains different examples of morphographs (Europ**eans**, cultur**al**, discovery). A morphograph is the spelling or orthographic representation of the smallest unit of meaning within a word. This list might be used during a history unit and students would probably practise spelling these words in the context of writing about history.

Example 2: Words organised according to a theme
history
Europeans
cultural
exploration
discovery
century

In Example 3, the words are organised according to a common suffix (ion). The spelling instruction that accompanies this list of words would include instruction in morphology where appropriate (for example, changing the bases 'act' to 'action', 'donate' to 'donation' and 'operate' to 'operation').

Example 3: Words with a common suffix
mention
station
action
fiction
donation
operation

Using lists of orthographically *unrelated* words to teach spelling, as in Examples 1 and 2, is more problematic than using lists of words that are related in some way, as in Example 3, because the amount of new content presented in Examples 1 and 2 is larger and requires more memorisation. In Example 3, an understanding of the structure of words is being built whereas in Examples 1 and 2, it would be difficult for children to notice a pattern. As can be seen in the examples above, the words presented to children has implications for spelling instruction.

How should spelling be taught?

English is considered by many to be highly irregular but research indicates that about 50% of all words can be spelled accurately based on regular letter-sound relationships. A further 34% are regular except for one sound and about 12% can be spelled using knowledge of word origin and word meaning. This leaves just 4% of English words that are truly irregular (*Joshi et al., 2008*). This may surprise those who see only exceptions to every rule or pattern, but it has important implications for the teaching of spelling. Evidence that English spelling is actually highly regular suggests that there is value in teaching spelling rules and conventions, and that spelling instruction should be language-based rather than based on rote learning of individual words.

Language-based spelling instruction occurs when children are explicitly taught linguistic concepts. This includes speech sounds, grapheme-phoneme correspondences (GPCs), word origins and morphology (meaningful parts of words) (*Joshi et al., 2008*). Children are taught to think about language and the internal structure of words rather than memorising the spellings of individual words. With this type of spelling instruction, children are able to spell many more words than it would be possible for them to memorise, and includes the words used as part of spelling instruction and the application of knowledge to novel words. There is far more empirical support for the provision of language-based spelling instruction than that based mainly on rote memorisation due to the generalising potential offered by language-based instruction (*Berninger et al., 2000; Joshi et al., 2008; Moats, 2009; Moats, 2019*).

In addition to being language-based, spelling should be taught via explicit instruction. Explicit instruction has been found to be instructionally effective in general (*Burton, Nunes, & Evangelou, 2021*; *Graham & Santangelo, 2014*; *Hughes et al., 2017; Westwood, 2022*). It is a teacher-directed approach with features such as well-sequenced lessons, clear and concise language, guided

practice, frequent student responses, cumulative review, distributed practice, and systematic (and immediate) error correction.

Error correction is an important consideration with regard to the teaching of spelling as the timing of this is often too late. It is necessary to deliver corrective feedback as soon as possible after a child makes a response (in this case, spelling a word or words) in order to facilitate high rates of success and reduce the chance of children practising errors (*Archer & Hughes, 2011*). Children should be given immediate feedback during teaching (*Ashman, 2018*) not days afterwards as is often the case with weekly spelling tests.

As well as providing explicit, language-based spelling instruction, the teaching of spelling should be integrated with reading and writing instruction, especially in the first few years of formal schooling when children are learning the alphabetic code. Many researchers have documented the close relationship between reading and writing (*Ehri, 2000*; *Graham, 2020*; *Moats, 2005*) Instruction organised in this way is more efficient as the reciprocal skills of reading and writing (including handwriting and spelling) are taught together and reinforce each other.

Conclusion

Although more traditional approaches to spelling instruction have involved weekly lists of words to be learned and then tested, it is not necessary or desirable to organise spelling instruction and assessment in this way. In order to avoid relying on memorising words as the main spelling strategy, evidence-based and language-based explicit spelling instruction should be provided to children, along with regular assessment.

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Dr Alison Madelaine is a Senior Research Fellow within the MultiLit Research Unit at MultiLit Pty Ltd. She is also Clinical Director of the MultiLit Literacy Centres and has had hands-on experience teaching students with reading difficulties in Australia and South Carolina, USA. She has provided consultation around the delivery of MultiLit's literacy programs to disadvantaged students in several projects, including those in Cape York, inner-city Sydney, and Sydney's western suburbs.

Nomanis Notes
Issue 5 | December 2018

Does classroom seating influence classroom behaviour?

Kevin Wheldall

Statement of the problem

It is now common practice in almost all primary and many high schools to seat students in table groups. The aim is to encourage discussion and collaboration when students are engaged in group work. Such seating may be counterproductive, however, when individual work is required since it facilitates unwanted student interaction. It may also cause problems when students are required to attend to the teacher since many will have their backs to the teacher.

Proposed solution/intervention

Classroom seating should be deployed strategically to facilitate the required behaviour from students. Table groups are appropriate for group work but counterproductive for individual work or when attention to the teacher is required. In these circumstances, alternative seating arrangements may be preferable.

The theoretical rationale

Behavioural theory states that behaviour is influenced not only by its consequences (such as praise or reprimand) but also by what precedes the behaviour ie the antecedents. It can sometimes be just as, or even more effective, to change the antecedent conditions that precipitate a certain classroom behaviour than it is to change the consequences, and may take less effort. It may be more effective to inhibit the behaviour from occurring in the first place. Classroom seating arrangements are a good example of such functional antecedents.

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

There is not a great deal of reported research on classroom seating arrangements and most of it has been concerned with comparing student behaviour when seated in table groups with behaviour when students are seated in rows. While table group seating may be more conducive to group work where discussion and collaboration are required, the research evidence demonstrates clearly that when individual work is required, without distraction by others, then seating in rows is associated with higher levels of appropriate student behaviour (usually measured as time spent on-task). Moreover, this effect is particularly pronounced for less able and more behaviourally troublesome students. Research has also shown that much of the classroom talk of students seated in table groups is not work related. Seating male and female primary students together is also associated with higher levels of appropriate behaviour.

Conclusion

While it would be difficult to conduct group work other than in table groups, more time is spent appropriately engaged in individual work when students are seated in rows facing the teacher. It is recommended that teachers should arrange the classroom seating strategically and be prepared to change the seating arrangements according to the task in hand.

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