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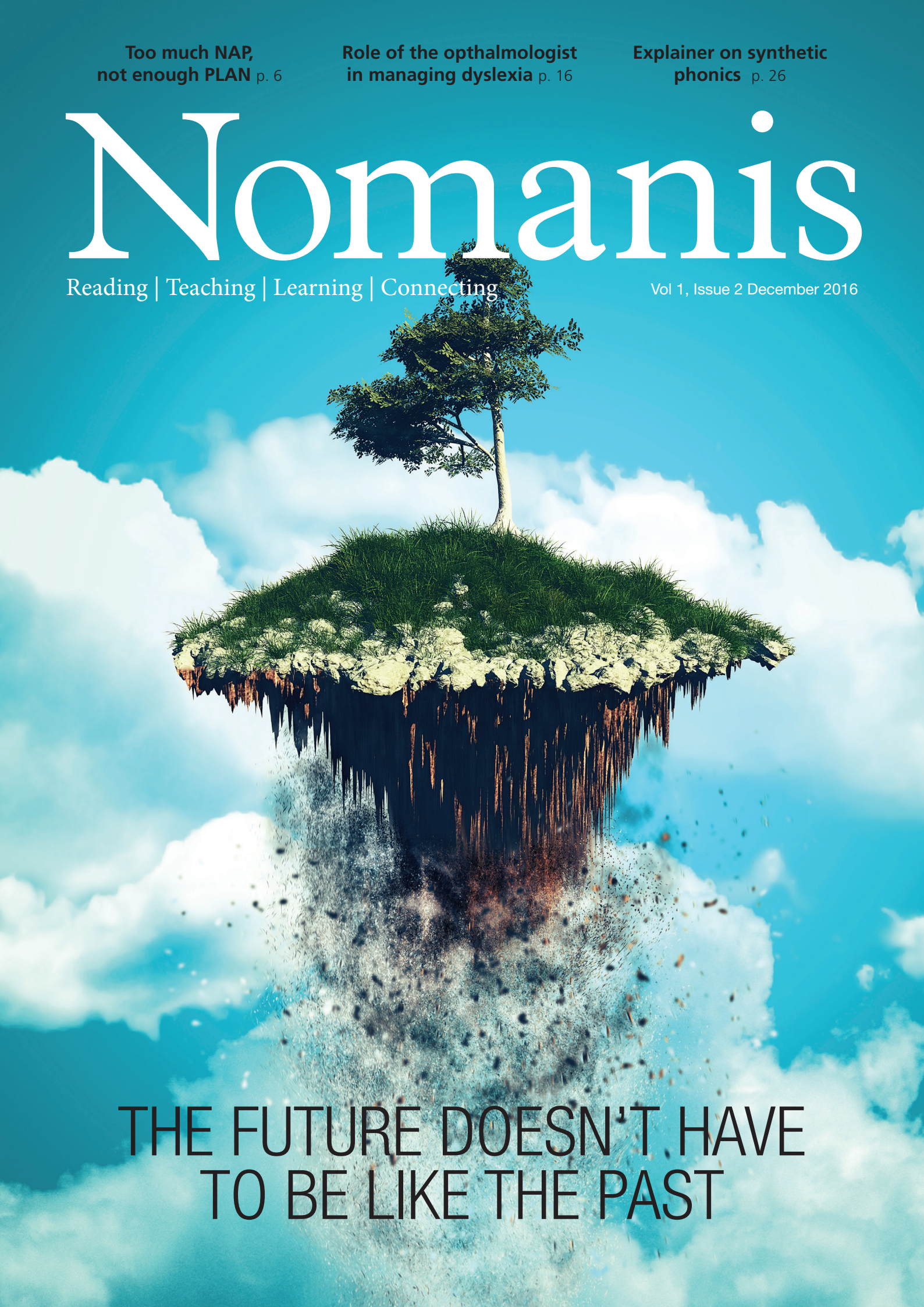
Nomanis

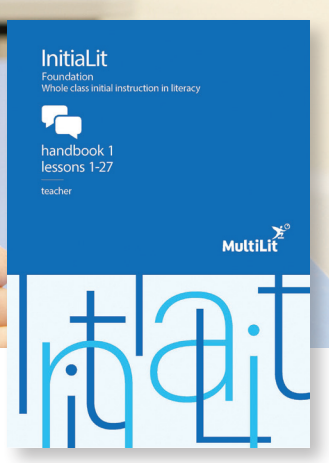
Reading | Teaching | Learning | Connecting

Vol 1, Issue 2 December 2016



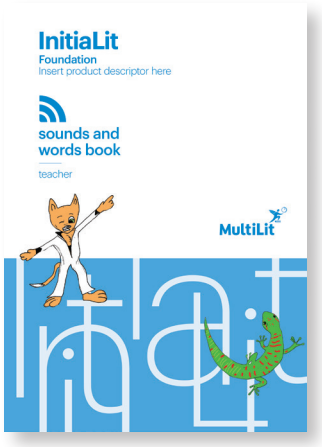
THE FUTURE DOESN'T HAVE TO BE LIKE THE PAST

InitiaLit is coming!



Designed to provide effective initial instruction in reading and related skills, the new InitiaLit Program, providing whole class initial instruction in literacy, is currently in development. The first phase, InitiaLit – Foundation, will be released in Term 4, 2017. InitiaLit – Year 1 and InitiaLit – Year 2 will follow in subsequent years.

The InitiaLit Foundation Program incorporates the key components necessary for early reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. The program teaches the alphabetic code through structured, explicit and systematic lessons, which will provide all children with essential foundational knowledge to become successful readers and writers.



What is in the program?

- 115 detailed and scripted lessons to be delivered to the whole class for 20-30 minutes to teach the alphabetic code
- Flashcards, Picture Cards, Templates and other downloadable resources necessary for the delivery of a full lesson
- MS PowerPoint lessons to accompany the script for ease of delivery
- Sounds and Words Books and carefully constructed written activities to facilitate group and independent work during the literacy block
- A set of decodable readers comprising 60 titles to be used during group reading
- Testing and monitoring procedures to assist with the identification of children who may need extra assistance
- Storybook Lessons based on 25 popular storybooks to develop and enhance vocabulary and oral language as well as encourage a love of literature

InitiaLit – Foundation will be released in Term 4, 2017

To register your interest and receive updates about the program's release, please email multilit@multilit.com

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Looking to the future

Kevin Wheldall

Robyn Wheldall

The old saying that 'weighing the pig does not make it any fatter' springs to mind when considering the latest NAPLAN results. Concern has been expressed that little or no progress is discernible comparing this year's results with the results for 2008, when the NAPLAN tests were first administered. In NSW, the results for reading show no significant improvements in performance in Years 5, 7, and 9 with a small (but significant) degree of improvement at Year 3 level. But why should we expect appreciable improvements in performance if we have done little to improve the quality of reading instruction? The estimable Jen Buckingham explores these and other issues in her article, 'Too much NAP and not enough PLAN', in this issue.

Coral Kemp follows a similar theme in her poignant letter to the Shadow Minister for Education, Tania Plibersek, arguing that "Throwing more money at the problem simply will not change things".

In this issue, we are also proud to include an article titled 'The future doesn't have to be like the past' by Sir Jim Rose, chair of the Independent Review on the Teaching of Early Reading (in the UK) that led to the hugely influential Rose Report of 2006.

This theme of the need for effective early reading instruction in schools is continued in our own contribution to this issue, 'Building the fence', in which we discuss the reasons why we have been developing InitiaLit, a new whole-class program for effective initial instruction in reading and related skills.

Elsewhere in this issue, we have been pleased to include articles on the role of the ophthalmologist in the management of dyslexia (making it clear that dyslexia is not a visual problem), and the overselling of brain research to support educational initiatives.

A letter from a parent asks "What would you have had me do, Mem?", questioning Mem Fox's somewhat controversial views on helping children learn to read, while an interview with a recent teaching graduate provides insight into what good instruction for trainee teachers actually looks like.

Considerable food for thought, then, in this our second issue of Nomanis. But please remember that we'd very much like to hear from you, our readers; let us know what you liked or did not like, what you agreed with or with what you disagreed, or send us an article about something that is of concern to you. All contributions gratefully received.

"Never send to know for whom the bell tolls, it tolls for thee."

Kevin Wheldall and Robyn Wheldall, Joint Editors

P.S. As a result of unforeseen technical difficulties, the publication of this second issue for 2016 has been delayed. This has, however, allowed us to include two additional articles. The first is about the proposed new Phonics Check, followed by an 'explainer' on what synthetic phonics really means.

What we've been reading

At MultiLit, we are not only interested in teaching reading but we are also avid readers ourselves. In this regular feature, we ask members of the editorial team what they've been reading recently and to share their thoughts with our readers.

Robyn Wheldall's bedside table bears testament to what she says is her rather chaotic approach to recreational reading, particularly of late! Hilary Mantel's impressive and highly acclaimed *Wolf Hall* reminded her of how intrigued she had always been by the Tudor period of English history. She attentively studied the pages at the beginning of the book outlining who was who and where they lived. She still struggled to remember the characters but struggled more with who was saying what. Her commitment started to wane, especially when the latest bright and shiny offering from Liane Moriaty, *Truly Madly Guilty*, found its way into her hands. She enjoyed it but found the stringing out of the disclosure of 'the incident' a bit annoying. It was time to return to *Wolf Hall* but then another new release piqued her interest: *Commonwealth* by Ann Patchett. She felt the same way as Meree (see below). The jumping around timewise made it difficult to follow and led to her not being that engaged in the storyline. It was time to recommit to *Wolf Hall* which felt like sitting down to a skilfully and lovingly prepared meal (or banquet) rather than having eaten too much fairy floss. A little harsh perhaps…

Meree Reynolds has recently finished reading *Talking To My Country* written by Stan Grant, who is a Wiradjuri man and well-known journalist. She found his reflections on identity, race and Australian history powerful, passionate and, at times, confronting and recommends the book to all interested in Australian culture. Meree has also read *Hamilton Hume: The Life and Times of our Greatest Explorer*, by Robert Macklin, a book that she found of interest but felt that it did not deliver as much detail as expected. At the moment she is mid-way through reading *Commonwealth*, a new novel by Ann Patchett and finding the characters interesting but the non-linear plot difficult to follow.

Alison Madelaine has continued working her way through Liane Moriarty's books, this time reading and very much enjoying *The Husband's Secret*. She has also read *The Vegetarian*, by Han Kang. This Man Booker International Prize winner (translated from Korean) was both disturbing and odd, but still very good. Finally, Alison is just about to finish *The Museum of You* by Carys Bray. She is very much enjoying this, which started out slowly, but may be one of the best of 2016.

Sarah Arakelian found *The Little Coffee Shop of Kabul* by Deborah Rodriguez to be an interesting and enjoyable – though rather confronting – read about five women all leading quite different lives in Afghanistan. On perhaps a lighter note, she has also continued her journey through J.R.R. Tolkien's *The Lord of the Rings* trilogy.

Kevin Wheldall is a great admirer of Martin Amis but was sorely disappointed by *Yellow Dog*, one of his middle period novels. Having found Hilary Mantel's *Wolf Hall* heavy going, he had put off reading the sequel, *Bring Up the Bodies*, but was very pleasantly surprised by an altogether more accessible and engaging work. While perhaps not quite up to the high standard set by Liane Moriarty's *Big Little Lies* (a firm favourite of the editorial team – see previous issue), *Truly Madly Guilty* was an enjoyable read. Melina Marchetta, in her first venture into crime writing, excelled with *Tell the Truth, Shame the Devil*. More please, Ms Marchetta! Alexander McCall Smith continues to enchant with *The Bertie Project*, the latest in his Scotland Street series and featuring one of the worst mums in contemporary fiction. This listing would be incomplete, however, without mention of yet more Inspector Montalbano from Andrea Camilleri in *The Treasure Hunt* and *Blade of Light*. No surprises here, and yes, a bit samey too, but always delightful.

Too much NAP, not enough PLAN:
Implications of the latest NAPLAN results

Jennifer Buckingham

The latest NAPLAN results tell an all too familiar story: in most states there has been little or no improvement in literacy and numeracy and too many children are failing to achieve even a basic level in the fundamentals of educational achievement. Changing this will require a relentless focus on effective instruction, especially in the early years, and adoption of teaching methods backed by the best evidence.

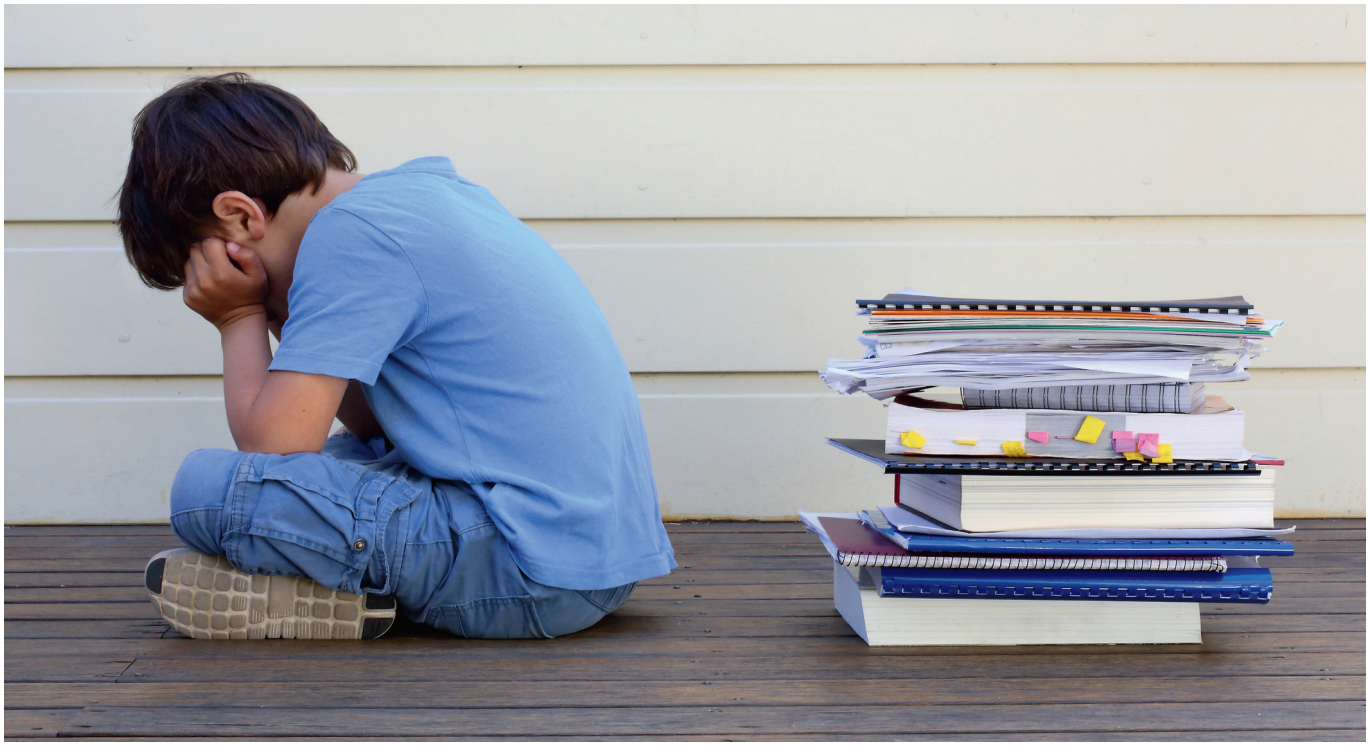
The statistics for Australia suggest that around 5-6% of primary school students were below the National Minimum Standard (NMS) on average in 2016, and this figure has barely shifted since NAPLAN began in 2008. Another 8-10% are just on the minimum standard. But it would be a mistake to assume that this figure represents the situation in individual schools. The My School website shows that there are suburban schools where 50% of students have reading skills at the bare minimum or less.

If that is not bad enough, the NAPLAN minimum standard is well below what would be considered an adequate standard in international tests, meaning that it underestimates the true number of children struggling with basic skills. In the Progress In Reading Literacy Study 2011 (the most recent report), 24% of Year 4 students were below the acceptable benchmark for reading literacy, compared with 4.9% of Year 3 students below NAPLAN NMS and 6.9% of students below Year 5 NMS. These NAPLAN percentages have barely shifted in the last nine years. This suggests that the NAPLAN NMS measure severely underestimates the number of children struggling with basic reading literacy. The Grattan Institute's Peter Goss has suggested that a new benchmark be added to the NAPLAN reports to account for this discrepancy.

The reason so many students cannot read at a proficient level depends on who you ask. Some say that insufficient resourcing of schools with large numbers of disadvantaged students is to blame. Billions of dollars of extra funding has gone into schools in recent years, especially since the 'Gonski' funding package was introduced. Yet there appears to have been little pay-off in what should be the core job of schools – teaching children to read, write and do maths. This is because extra funding has little impact on student achievement if teachers are not using the most effective teaching methods in the classroom where children spend most of their school day.

The NSW Government's Early Action for Success (EAfS) program is an example. Its central literacy program, called 'L3', was not properly trialled and tested before being implemented to over 400 schools across NSW, and does not meet the criteria for evidence-based reading instruction identified in scientific research, including systematic phonics instruction. According to the latest published report on EAfS in 2014, as many schools had negative movement in their NAPLAN reading scores as positive. Funnelling more money into programs that are not truly evidence-based will not help children achieve higher literacy levels.

Some say that teaching quality is the main contributing factor, including the trend toward low entry scores in initial teacher education (ITE) courses. In 2005,



256 school leavers entered ITE courses with ATARs of less than 60. In 2013, it was 979. This may be a small proportion of the overall ITE cohort, but it is still a lot of new teachers whose academic aptitude is relatively low according to their Year 12 performance.

Just as questionable is the quality of the ITE courses they complete. A number of studies has found that Australian ITE students and graduates have poor knowledge of the structure and rules of the English language. According to Professor Pamela Snow from La Trobe University, there is an 'intergenerational effect' whereby new teachers are themselves the product of teaching methods that have not provided them with the linguistic knowledge necessary for explicit instruction in reading, spelling, grammar and writing, and their ITE courses have neglected to fill this gap.

Typically, there has been no measure of how well prepared ITE graduates are to teach, but school principals seem to have a low opinion. In the Staff in Australia's Schools survey, approximately one-third of principals said they thought recent teacher graduates were well prepared to develop strategy for teaching literacy and numeracy. New ITE accreditation standards have been developed by the Australian Institute for Teaching and School Leadership to try to rectify this problem.

Extra funding has little impact on student achievement if teachers are not using the most effective teaching methods in the classroom

On the same day as Australian newspapers and talkback radio waves were full of NAPLAN stories, it was reported in the New York Post that the city's schools made large gains in the state literacy and numeracy tests, and that charter schools – which enrol mainly low income and black and Hispanic students – were largely responsible. Across the city, 76% of charter schools outperformed their public school districts in maths and 71% in English.

Charter school quality varies but some have remarkable results. High-performing charter schools tend to have some common characteristics, including selectively recruiting the best teachers and investing their instructional efforts heavily in literacy and numeracy. Many, if not most, use traditional teaching methods, including direct instruction. And their strong results can't be attributed to higher funding – New York state charter schools, for example, are funded at a per pupil rate 30% lower than district public schools.

Charter schools in the US and high-performing, low SES public schools around Australia show that social background need not be a barrier to literacy, but more funding will not automatically lead to better outcomes. Only with effective, evidence-based instruction, including systematic, synthetic phonics, will all children learn to read.

The NAPLAN reading assessment is a broad measure that only flags that a student is having difficulty, but not why. The Year 1 Phonics Screening Check (PSC), proposed by the Australian Government, will be an early marker of which children are struggling with this fundamental skill and which schools are not teaching it well. Since the Year 1 PSC was introduced in English schools in 2012, the failure rate in Year 2 reading comprehension tests has declined by 30%. We can only hope it will have the same effect in Australia.

Dr Jennifer Buckingham is a senior research fellow at The Centre for Independent Studies (www.cis.org.au) and director of the FIVE from FIVE reading project (www.fivefromfive.org.au).

A letter to the Shadow Minister for Education, Tanya Plibersek

Coral Kemp

Dear Ms Plibersek,

Until the recent boundary changes, you were my local member and someone I thought could well be a future leader of the Labor Party. I was moved to contact you after hearing your response to the recent NAPLAN scores. As a traditional Labor voter, I was appalled to hear your response to these results. Throwing more money at the problem simply will not change things. I am a former primary school teacher, special educator and academic. I have been reading the research relating to the teaching of literacy and numeracy for more than 40 years, something that I was not taught to do as a trainee teacher. I have three grandchildren in kindergarten and one in Year 1 in reasonably affluent NSW schools. I was horrified when I learned of the approach to teaching literacy in those schools.

The program that is being used (L3) has no research to support it and does not include the systematic teaching of phonics, which we know is absolutely essential if all children are to become fluent readers. One of my grandchildren, who is of average intelligence, is struggling with both literacy and numeracy and, in Year 1, is losing confidence in her ability. She needs an evidence-based program but is not getting one. She is one of those children who would not have a learning difficulty if provided with the right program but is headed for failure without it. Unfortunately because she lives a long way from me, I am not able to give her the support that she absolutely needs.

A fortune is being spent on the L3 program, mainly in professional development to the staff delivering it. At the state school where my daughter's children (twins) attend kindergarten, parents are having their children tutored outside school or are withdrawing their children and enrolling them in private schools. These parents have the resources to do this. My concern is for the children in disadvantaged areas where parents do not have the same options and do not have the confidence to challenge the program adopted by the school.

You can double the amount of money spent on education and provide more to disadvantaged schools but this will not change the literacy and numeracy skills of our children unless the right content is taught using the right approach. My daughter was told that she should not use a different approach to teaching reading to her children as it would confuse them. I would have laughed at this if it hadn't been so disturbing. I have the skills and live close enough to work with these grandchildren and have no doubt that they will be fine in the long term. I weep for other children, in particular disadvantaged children and the children with significant learning difficulties.

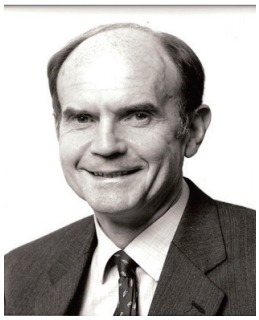
Please stop playing party politics and think about our children, who after all are our future. If you are interested in having a comprehensive briefing on the research behind the teaching of literacy and numeracy, I would be happy to provide this for you.

Regards,

Coral Kemp PhD
Honorary Fellow
Macquarie University Special Education Centre

The future doesn't have to be like the past

Jim Rose



Jim Rose conducted the independent review into the teaching of early reading in the UK in 2006, which has been influential in shaping current views of evidence-based literacy instruction, particularly in relation to the need for systematic synthetic phonics. He provides an update on the current situation in the English education system.

While England may not top PISA's international league tables we almost certainly surpass our international counterparts in the amount and pace of educational reform that governments of all stripes have generated since the *Education Reform Act* in 1988. In a nutshell, the aim of these reforms has been 'to raise standards and narrow gaps' in pupil performance.

Headline news has recently focused yet again on falling standards of education as national examination results for 16-year-olds this year show that: "GCSE grades have seen the biggest ever fall in the overall pass rate in the history of the exams." These grades apply to schools in the state sector and stand in sharp contrast to the independent, private sector where more than a third of the children achieved the highest grade of 'A' – nearly five times the national average.

The private sector in England now stands at around 7% of the school population and is way beyond the means of the great majority of parents. Lloyds Bank recently estimated the costs of sending one child to private school from reception to Year 13 as £156,653 – annual fees having nearly doubled from an average of £7,308 in 2003 to £13,341 in 2016.

In a speech, earlier this year, our Chief Inspector of Schools, Sir Michael Wilshaw, delivered a scathing attack on the ideologies of both left and right-wing politics, which he holds responsible for a woeful lack of progress on narrowing the achievement gap between socio-economic groups. He said that, despite a range of initiatives, including the Pupil Premium, no real difference has been made over the last decade. (The Pupil Premium is additional funding for publicly funded schools in England to raise the attainment of disadvantaged pupils of all abilities and to close the gaps between them and their peers.)

"The needle has barely moved. In 2005, the attainment gap between free school meal [FSM] and non-FSM pupils in secondary schools was 28 percentage points. It is still 28 percentage points now," Wilshaw said.

"Our failure to improve significantly the educational chances of the poor disfigures our school system. It scars our other achievements. It stands as a reproach to us all."

It is hardly surprising that this has prompted a resurgence of fierce debate about the stubborn obstacles in the way of boosting the attainment of children from low income families and narrowing the gap in educational performance between disadvantaged children and their more advantaged peers.

The debate has been further inflamed by recent government proposals to provide more selective, state grammar schools "to give parents a wider choice of schools" irrespective of their background circumstances.

All of this has coincided with the latest national curriculum assessments for children in the final year of primary school (11-year-olds), showing that fewer pupils reached the expected standard in reading than in writing and mathematics. Moreover, evidence of lasting improvements from numerous targeted interventions to help struggling readers is rare. It seems that hard-won early gains from programmes designed to help them 'catch up' tend to fade out as they fail to keep pace with the overall rate of progress of their year groups.

It is little comfort to know that some of these problems are not unique to England. However, some would say that we are the product of a historical past that has led to a more stratified society than many of our international counterparts, and that divisions between state and private education are at the root of these problems. One of our most visionary and dynamic erstwhile school ministers, Lord Andrew Adonis, commented on the divide between state and private education:

> *"Over the entire second half of the 20th century, these prejudices made it exceptionally hard to do more than fiddle around at the margins of state-private partnership. This, in turn, bred a deep fatalism which is with us still. Everyone knows that the status quo is terrible – rigid separation between most of the nation's most privileged and powerful schools and the rest. Yet no-one has a credible plan or will to do much about it except say how bad it is, why it's someone else's fault, and why it will never change because, well, this is England, it's deep and cultural, and it all began with Henry VIII. It's the same fatalism which greeted gridlock in central London before the congestion charge, hospital waiting lists before patients' rights, and rain stopping play at Wimbledon before the roof. The call now is for activists not fatalists. The future doesn't have to be like the past."*

In a bold attempt to achieve a strong 'state-private partnership', he paved the way for academising the school system – a major reform in England which, though not without criticism, remains a firm commitment of the present administration.

However, progress has been patchy. These radical systemic/organisational changes have yet to make the looked-for impact on helping less well-off children scale the rock face of disadvantage. For them it is much like bicycling a 'penny farthing' uphill – the higher they get, the harder it becomes. Well-off parents, it seems, are able to equip their children with an Olympic class bike in the shape of private schooling that boosts their rate of progress. So what might we do, or do differently, to make sure all children have an educational super bike?

It is of first importance, not to lower our educational expectations for disadvantaged youngsters. There are some telling examples of those from the most unpromising background circumstances succeeding against the odds. Moreover, by no means all privately educated youngsters from prestigious schools 'make it big' – so *caveat emptor.*

Secondly, school inspections show that schools of all types vary in quality ranging, in OFSTED terms, from 'outstanding' to 'in need of improvement'. This suggests that systemic change alone is unlikely to be the tide that lifts all boats. It is trite but true to say that to be successful, such change must secure high quality teaching irrespective of school type or location – hence, we would do well to curb our appetite for systemic reform and put more effort into the professional development of teachers and training those who support them in the classroom.

While it ought to be a given that every school should endow all of its children with the advantage of high quality teaching, inspection reports show this not to be the case. Rather, the picture remains one of too much variation in the quality of teaching within and between schools. The well-worn mantra that no school can be better than its teachers needs more than a facelift. It needs a change of heart.

This part of the forest might also benefit from a clearer definition of what 'high quality' looks like. In other words, establish a common language for a discourse on optimal teaching (and learning). Some promising developments worth close attention have 'moved the needle' by encouraging schools to be 'self-improving'. One recent piece of research points to a positive impact on narrowing the gap in the reading performance of disadvantaged primary children by means of cost effective, well-taught phonic programmes (Centre for Economic Performance Paper No.1425, April 2016).

We do not yet know how well these gains are sustained; for example, when children move from primary to secondary education. However, OFSTED Annual Reports show that, in this respect at least, the primary sector is doing rather better than the secondary sector in narrowing the literacy gap, much to the credit of primary teachers. Given that we know far more about how to teach children to read and write than ever before there should be no excuses for poor teaching in this territory.

The future does not have to be like the past, nor ought the best we can do now be the best that we should hope for. All that said, if we are to secure high quality teaching for all children in England, reformers and policy makers would do well to heed the words of Alvin Toffler: "Future shock [is] the shattering stress and disorientation that we induce in individuals by subjecting them to too much change in too short a time."

Sir Jim Rose, CBE, chaired the Independent Review of the Teaching of Early Reading in the UK that led to the influential Rose Report (2006).

Building the fence

Kevin Wheldall

Robyn Wheldall

In Australia, as in so many western countries, we adopt a 'wait to fail' approach to reading instruction. We typically provide a so-called 'balanced' approach to initial instruction in literacy in the first year of schooling, with very little by way of overt, explicit, systematic instruction in the key elements of effective reading instruction, especially phonemic awareness, phonics and reading fluency practice. Then we wait for at least a year (the Foundation Year) and at the beginning of Year 1, we attempt to identify the struggling readers and provide them, at best, with the type of instruction they should have had in the first place! Small wonder that we see as many as 25% of young students in Year 1 as 'struggling readers'.

But this need not be the case. We may not need ambulances at the bottom of the cliff (or, at least, not so many), if we provide adequate fencing and safety measures at the top. By this we mean that if all children were to receive effective, exemplary initial literacy instruction, based on sound, scientific evidence-based research, in the first place, from the word go, we would have far less need to provide so much remedial support for struggling readers. Instead of addressing the needs of the bottom 25% of young struggling readers, we may well only need to provide for less than 5% of young students.

As a research and development initiative, and now a company, geared towards addressing the needs of low-progress readers, it might sound strange that we are now trying to do ourselves out of business. But we have long been on the record as having the goal of making ourselves redundant! More seriously, we see the need for effective initial literacy instruction as critical for several reasons. First, we would not wish to see any child experience the misery of struggling to learn to read when many of their peers seem to be mastering the task with ease. Second, the sooner children master the basics of learning to read, the sooner they can experience the joys of reading to learn. And third, if we can reduce the apparent need for remedial instruction to the small minority who, for whatever reasons, may still struggle in spite of exemplary instruction, then we can meet the needs of those relatively few children more adequately: we can offer them more time and professional support.

For all of these reasons, we turned our attention at MultiLit to initial literacy instruction and over the past few years we have been developing InitiaLit, a whole class program of literacy instruction predicated on best practice inspired by the best available scientific evidence base regarding how reading works and how best to teach it. In our first program, we focus on teaching the reading and related skills appropriate for the first year of schooling, the Foundation Year. Subsequent programs will address the curriculum for Years 1 and 2.

InitiaLit – Foundation, MultiLit's program for initial literacy instruction for whole classes, has been developed to provide teachers with a carefully sequenced and structured program of instruction geared towards meeting the needs of young children in their Foundation Year of schooling. As always, it has been the product of a continuing program of research and development by a specialist team of academic researchers and special educators that we have had the pleasure of leading.

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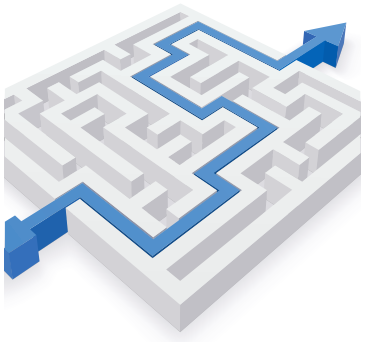
Five common misconceptions about learning

They feel right, but are they? Greg Ashman debunks the myths.

1. NOVICES SHOULD EMULATE EXPERTS

Experts have a vast amount of content knowledge that enables them to perform differently. It is easy to underestimate the scale of this. A key finding of cognitive science is that experts and novices benefit from quite different types of instruction. Novices benefit from complex ideas being broken down into smaller steps and then having these steps explicitly taught. Experts learn better by solving more open-ended problems and conducting investigations.



2. META-COGNITION IS A SHORTCUT TO EXPERTISE

It would be great if we could find a way to develop expertise without students having to learn and practise all of the boring stuff. Perhaps we could teach general strategies which can be used in a range of situations. This way, we could teach students 'how to learn' and they can apply this to anything they need to learn in the future. The evidence suggests that some strategies can be explicitly taught to students and confer an advantage. However, they tend to provide a one-off boost which continued drilling doesn't seem to improve on very much.

3. EDUCATION MUST BE PERSONALISED

Imagine a tour operator running trips to Greece. Of course, the tour operator needs to take account of where people are travelling from so that she can organise planes. But she still has to get them to Greece. It would be a poor tour operator who told people not to bother going there and to go for a walk around their home town instead. Students need to be able to read, write and do basic mathematics. These are functional skills that society demands and that are often most effectively taught through whole-class, interactive teaching. Reading comprehension requires a large amount of general knowledge and not just knowledge that is of personal interest to a particular student.

4. YOU UNDERSTAND CONCEPTS BETTER IF YOU DISCOVER THEM FOR YOURSELF

In one seminal study, students were randomly divided into two groups. The first group were explicitly taught the scientific principle of controlling variables. The second group were given investigations to complete in which they had to figure this out for themselves. Fewer students in the second condition learnt the principle. However, those that did learn it were no better than students from the first group at evaluating science fair posters. There was no advantage to discovery.

5. KNOWLEDGE-BASED EDUCATION IS BORING

Educationalists often suggest alternatives to fact learning. In a recent book, David Perkins made the case for tasks where students engage in, "Project-based learning in mathematics or science, which, for instance, might ask students to model traffic flow in their neighbourhood or predict water needs in their community over the next twenty years." Set against this, a whole-class discussion of the extinction of the dinosaurs or the battle of El Alamein or whether Macbeth is a misogynistic play all seem positively in-tune with teenagers' interests.

This article is based on a 'Filling The Pail' blog post: https://gregashman.wordpress.com/2015/05/16/five-common-misconceptions-about-learning/. *You can read a much more detailed discussion of these ideas in the ebook, Ouroboros, which is available via the Filling The Pail blog.*

So much talk about 'the brain' in education is meaningless

Jared Cooney Horvath

Gregory Donoghue

You may have noticed a steady increase in the use of brain-based language in education recently. You may also have noticed that, beyond the creation of some lucrative learning tools, this language hasn't done much to meaningfully add to the teaching/learning discourse.

The reason for this is simple: although impressive sounding, the majority of educational references to the brain are devoid of any original, unique or prescriptive value. They are what we have come to call 'neurosophisms'. 'Neuro' meaning neuron or nerve, and 'sophisma' meaning 'clever device', a neurosophism is a sophisticated but fallacious application of neuroscientific language. To get a sense of what we mean, here are a few of the more common types of offences.

The first type we've termed the *Sleight of Hand*: when someone coyly sneaks an ultimately meaningless neuroscientific term into a phrase in the hope it will add prestige and weight. Here's an example: "When learning activities are repeatedly linked to enjoyable experiences, students' brains learn to seek out those activities."

Now remove the word "brains" from the sentence above and re-read it. Does the meaning change at all? Is any information lost or gained by removing the reference to neuroscience in this context? Did the inclusion of neuroscience in this context teach you anything meaningful about the brain, or was it simply decorative?

The next type of neurosophism is called the *Rebadged Car*: when someone takes a well-understood piece of information, repackages it in neuroscientific language, and tries to sell it as something new.

"You can't think when you're stressed, you can't learn when you're anxious and that's one of the primary principles of the neuroscience …"

What's implied in this sentence is that, prior to the emergence of neuroscience, teachers were blissfully unaware of the effects of stress and anxiety on learning. The truth is, this relationship has been understood for decades (if not centuries) and was exhaustively explored in labs and classrooms throughout the 1950s.

Another type of neurosophism we call the *Bait and Switch*: when someone says cited research is neuroscience, but it truly derives from a different (typically behavioural) field. Here's an example: "Brain research shows that people learn better when new concepts are tied to what students already know."

Although this might seem similar to the Rebadged Car, there is a subtle difference: in this instance, the research referenced as being conducted by neuroscientists was actually conducted by psychologists without any neural measure. Essentially, readers were promised information about the brain but, instead, were delivered information about behaviour.

The final brand of neurosophisms are known as *The Untouchables*: when someone presents a vague, ill-defined neuroscientific measure to assess an important educational outcome.

"[the] true self is obviously one in which neural network development has been maximised …"

Most teachers will never see their students' brains in action. So what are we to make of propositions that pair a desired educational goal ("true" students) with an outcome impossible for the majority of teachers to measure (neural network development)? Even if teachers were able to directly measure neural development, how would they ever determine if the changes produced were "maximised" or otherwise?

How to spot a neurosophism

The next time you read something about neuroscience and education, there are a few simple questions you can ask to inoculate yourself against ultimately meaningless propositions:

- Can I replace the word "brain" with the word "student" without losing any meaning? If so, there is no need to defer to neuroscience.
- Is this finding new? Or has it been a part of successful teaching practice for years? If the latter, there is no need to defer to neuroscience.
- What type of research is being used to prove the point? If the answer is psychological, educational or otherwise behavioural, there is no need to defer to neuroscience.
- Does the proposed outcome represent a truly meaningful and measurable value? If the answer is no, there is no need to defer to neuroscience.

The errant use of neuroscientific jargon may seem innocuous, even humorous. But the consequences can be serious: if we know something works to enhance student learning or wellbeing, then we should name it and do more of it.

Attributing an intervention's success to something else that may not actually confer that benefit – in this case, generic neuroscience – makes it more likely that educators and policy-makers will waste time and resources exploring ultimately fruitless avenues of inquiry. This robs our students of that opportunity for success – and that's no laughing matter.

There is no doubt the brain is an incredible topic and there is a growing sense of excitement about the implications of neuroscience for education. However, it's important we don't allow this excitement to cloud our judgement – and ridding the discourse of neurosophisms will no doubt be a step in the right direction.

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THE CONVERSATION

https://theconversation.com/so-much-talk-about-the-brain-in-education-is-meaningless-47102. Links to the relevant research are included in the original publication.

Role of the ophthalmologist in the management of dyslexia (specific learning difficulties)

Frank Martin, Lindley Leonard, Craig Donaldson, James Elder, Glen Gole and Geoffrey Lam

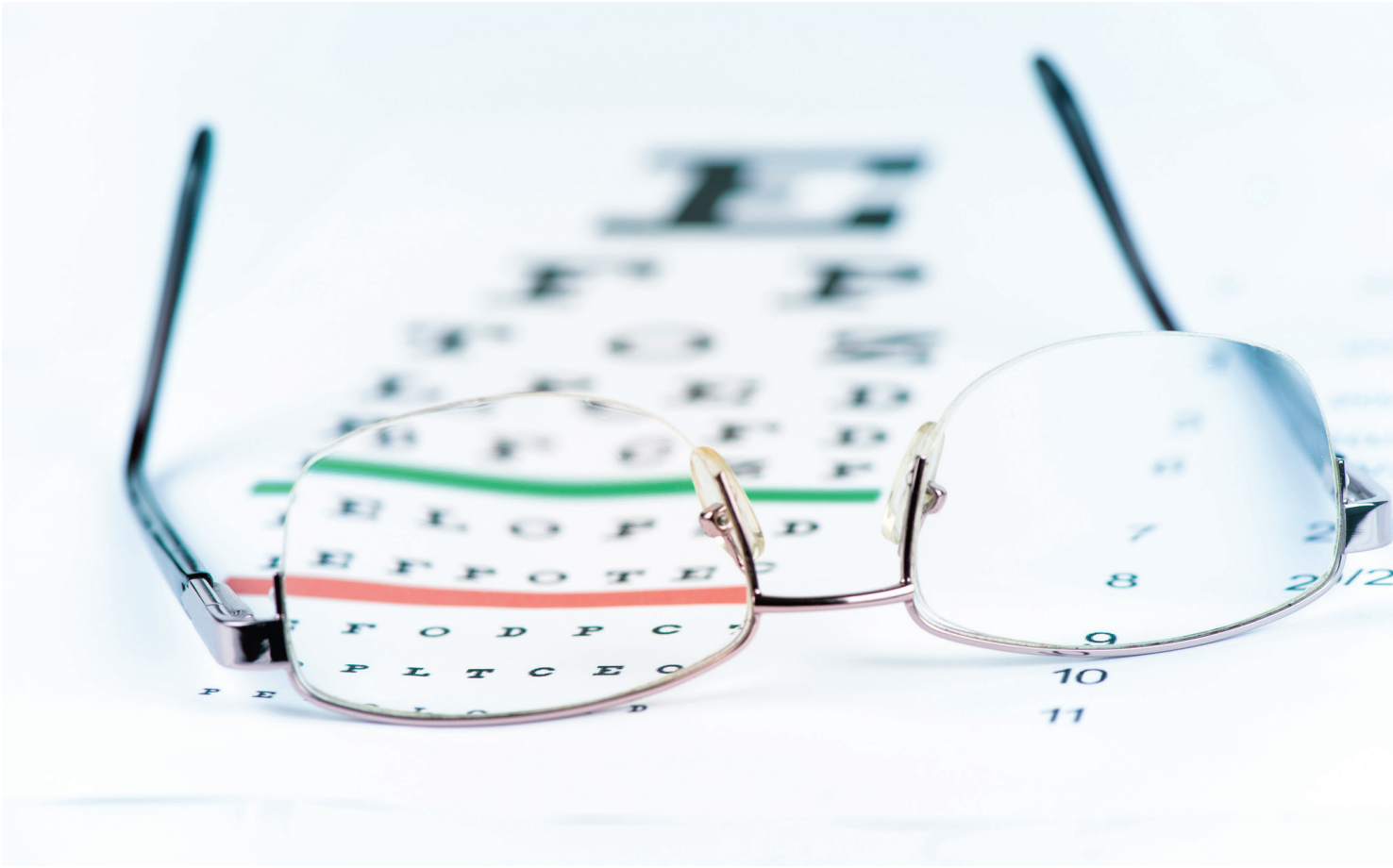
The role of the ophthalmologist in the management of children with dyslexia is above and beyond a full eye examination. The ophthalmologist needs to understand the process of learning to read, the theories of dyslexia, and controversial and non-controversial therapies. This understanding will in turn allow the ophthalmologist to guide parents towards appropriate science-based remedial intervention for their child.

Reading difficulty/specific learning difficulty/developmental dyslexia is defined as being unable to read at the level that would be expected taking into account the home background, the educational opportunities and the child's intelligence. It is a common problem, with mild to moderate dyslexia occurring in 10-16% of children and severe in 2-4%. Males and females are equally affected and difficulties with reading fluency are similar across languages. There are also a number of comorbidities associated with dyslexia; approximately 15% of children with reading disability have attention deficit hyperactivity disorder (ADHD) and of children diagnosed with ADHD, 35% have a reading disability.

Learning to read

The process of reading involves extracting meaning from print. The phonological model of reading is the most widely accepted. Reading is a decoding skill while spelling and writing are encoding skills. In alphabet-based languages (such as English) there is a sequence that allows reading to proceed: symbol (letter or grapheme) –> sound (phonemes) –> words and meanings (semantics). To understand the process of reading, we need to be aware that this involves phonemes which are the smallest meaningful segment of language. A different combination of 44 phonemes produces every word in the English language. As an example, the word 'cat' is broken up into three phonemes – kuh/aah/tuh. The phonological module automatically assembles phonemes into words. These are known as letter sound rules. The process of reading is not a single skill; it requires many sub-skills, including letter recognition, word recognition, letter-sound rules and word comprehension.

Children go through several stages as they learn to read. There is good evidence that the brain is 'rewired' as a child learns to read. In immature readers, the reading process is bi-hemispheric and has significant involvement of frontal, temporal, parietal and occipital lobes while in more mature and skilled readers the left hemisphere is predominant, with mainly frontal and occipital lobe involvement with relative bypassing of the temporal and parietal lobes. Early language exposure by being read to influences subsequent learning to read; it appears this early experience helps the child understand many basic language rules before the more formal process of learning to read commences. In the initial stages of learning to read the child learns a small sight vocabulary, they then learn how to sound out, then use sounding out to build up a bigger sight vocabulary, and then they eventually give up sounding out as they become a fast and fluent reader.



When a child reads aloud, they can either recognise the word in their mental dictionary or apply the letter-sound rules. The English language is amongst the most difficult languages to learn to read as there are so many irregular words where sounding out does not give meaning or sense to the word. An example of an irregular word is 'yacht'; no amount of sounding out will correctly allow the reader to read this word aloud. Irregular words need to be identified by prior exposure. However, regular words such as 'trout' can be read by applying the letter-sound rules.

Dyslexia

Reading difficulties can be divided into a primary form (dyslexia) and secondary forms that may be the result of visual or hearing disorders, intellectual disability, life experience and/or educational deficits. Lyon et al have defined dyslexia as "… a receptive language-based learning disability that is characterised by difficulties with decoding, fluent word recognition, and/or reading-comprehension skills. These difficulties typically result from a deficit in the phonologic component of language that makes it difficult to use the alphabetic code to decode the written word. Secondary consequences may include reduced reading experience that can impede growth of vocabulary, written expression, and background knowledge." (Lyon GR, Shaywitz S, Shaywitz B. A definition of dyslexia. *Ann of Dyslexia. 2003*;53(1):1-14.)

The most compelling theory for dyslexia is that it is due to an abnormality of brain function. In the brain the inferior frontal gyrus is the phoneme producer, word analysis occurs in the parietal-temporal region and word form and automatic detection of words occurs in the occipital-temporal area of the brain. Neuroanatomical changes with an absence of normal asymmetry between the left and right hemisphere of the brain in dyslexic children have been documented in a number of studies. Functional neuroimaging (fMRI) for normal readers as compared to dyslexic children have also been performed and show a difference in brain function between the two groups. After successful remedial treatment this difference is no longer present. The review of evidence strongly supports the view that dyslexia is due to brain dysfunction.

This is further supported by the neuropsychological studies that have shown that dyslexia is a language based disorder with a primary underlying deficit involving problems in phonological processing. Phonological difficulties probably interact with other neurocognitive risk factors.

The neurobiological nature of dyslexia has been supported by the finding that 23%-65% of children with dyslexia have a dyslexic parent and 40% a dyslexic sibling. Six candidate genes have been identified for dyslexia.

A number of alternative theories have been proposed to explain dyslexia. These include abnormalities of visual function and eye movements. Although the ability to read involves vision, the process itself fundamentally includes

parts of the brain beyond the visual pathways; vision is only one of the initial steps. Children with severe visual impairment and nystagmus may have some difficulty learning to read but this is a secondary form of dyslexia. Most visual impairment, refractive errors and abnormalities of binocular vision and accommodation/convergence have been shown to have no significant effect on the ability to learn to read. There is a lack of good evidence in the literature to support that visual dysfunction is the cause of reading difficulties such as dyslexia.

It has been suggested that abnormalities of saccadic (rapid) eye movements underlie dyslexia. In normal reading, as the child reads there are forward saccades of the eyes with fixation pauses. There are also regression or backward saccades as the child tries to extract meaning from print. The eyes also undergo small vergence adjustments. In the child learning to read and the child with reading difficulties, there are shorter saccades, longer fixation pauses and an increased number of regressions as the reader has increased difficulty in understanding the text. As reading develops, the saccades lengthen, the fixation pauses are shorter and the number of regressions is decreased. The eye movements in the child with dyslexia are similar to that of the child learning to read. The so-called abnormal eye movements observed in dyslexic children are the result, not the cause, of the reading difficulty.

Effects of the magnocellular (transient) visual system have also been blamed for dyslexia. The magnocellular visual system responds to rapid changes in visual stimulation whilst the parvocellular mediates colour vision and perception of fine spatial details. The magnocellular system in dyslexia is thought to not be able to suppress the parvocellular system. The evidence for this theory is based on contrast sensitivity studies and is equivocal.

Controversial therapies

There have been a number of controversial treatments proposed for dyslexia. These include vision training, combined with neurodevelopmental training, Irlen tinted lenses and fringe therapies such as the Lawson anti-suppression device.

Vision training is based on the premise that reading is primarily a visual task. Vision training involves muscle exercises, ocular pursuits, tracking exercises, training glasses (with or without bifocals or prism) and these are often combined with neurodevelopmental training. Eye exercises have been shown to improve convergence insufficiency, help develop fine stereoscopic skills and improve visual field recordings after brain damage. There is no clear scientific evidence published in mainstream literature to support the use of eye exercises in other conditions including learning disabilities and dyslexia. The American Optometric Association has stated that vision training does not directly treat learning disabilities but improves visual efficacy to make the student more responsive to educational instruction. There is, however, no evidence that children participating in vision therapy are more responsive to education instruction than children who do not participate. Claims of reading improvement have not been subjected to well-controlled prospective clinical trials.

Irlen clinics dispensing the Irlen tinted lenses claim instantaneous improvement in reading performance, comprehension and distance judgment. The efficacy of Irlen tinted lenses is based on anecdotal evidence. Controlled trials have shown no difference in outcomes in children given tinted lenses.

Therapies including the Lawson anti-suppression device, syntonics, applied kinesiology, megavitamins and mega oils, the use of trace elements and psychostimulants have all been claimed to improve the reading of dyslexics. The Lawson anti-suppression device, as used in the Alison Lawson clinics, offers a quick fix with 10 one-hour treatments aimed at stimulating the visual cortex. This treatment is based on a false premise that the visual cortex is responsible for reading. There are no controlled trials to support the claims of efficacy of any of the fringe therapies. Their claim to success is based on anecdotal evidence.

Rational management of dyslexia

Non-controversial, well researched management involves early diagnosis based on comprehensive evaluation by an educational psychologist, the exclusion of any sensory deficit and correction of the deficit with appropriate glasses, appropriate orthoptic eye exercises and hearing aids, if indicated, followed by appropriate remedial educational input.

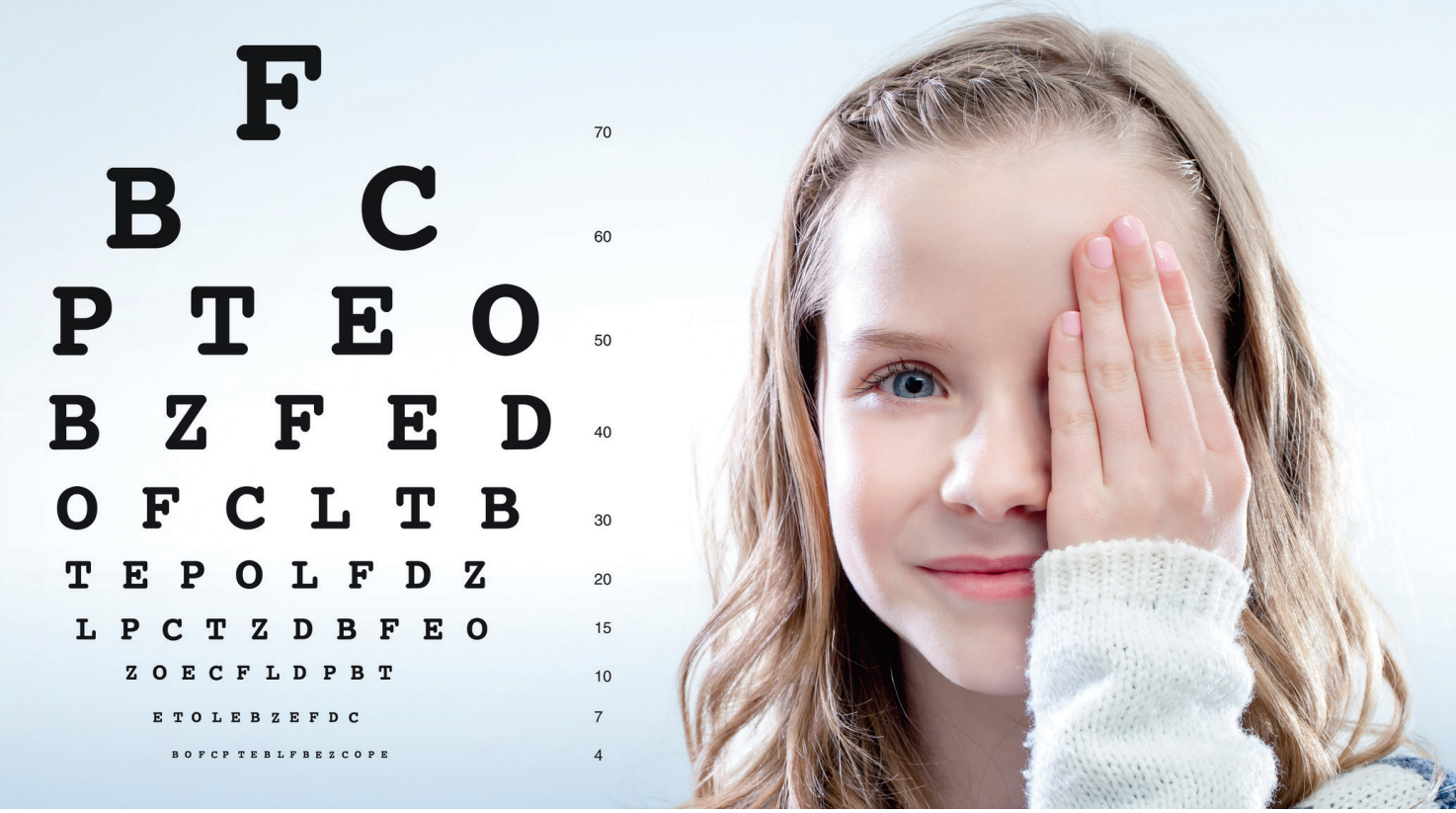
There is good evidence that appropriate educational interventions make a major difference to dyslexia. Regardless of the severity of the dyslexia, education interventions make some difference.

- Dyslexia is a brain dysfunction.
- Management must be based on science. Remedial reading intervention is currently the best management.
- There is no credible evidence to support claims for treatments such as vision training/therapy with or without combined neurodevelopmental training, Irlen tinted lenses and the Lawson anti-suppression device.
- The ophthalmologist has a role in the diagnosis and correction of vision deficits. They should help guide the parents towards appropriate remedial assistance for their child.

The role of the ophthalmologist

Ophthalmologists are often consulted by parents of children who have been experiencing difficulty with reading. Visual problems can interfere with the physical aspects of reading, therefore the visual system should be assessed to rule out any ocular disorder before specific treatment is initiated for learning difficulties. Reading discomfort can be related to uncorrected refractive errors and to disorders of ocular motility, binocular function (especially convergence), or accommodation. If eye conditions are diagnosed at the time of the visit, they should be treated appropriately. Treatment may include glasses for refractive error or convergence exercises for convergence insufficiency. However, if the eye examination does not reveal any major pathology, the parents should be counselled about their child's learning deficiency and reassured that subtle ocular deficits are not the cause of reading difficulties.

Eye professionals should not



be considered the expert in reading education. A variety of trained specialists are available for children in need of help and there is an enormous body of literature regarding reading and learning from the educational perspective. Effective intervention remediates the underlying problem in phonemic awareness.

The role of the ophthalmologist is to take an accurate history, including questions about development and the family history; perform or arrange for a full orthoptic workup; perform cycloplegic refraction and ophthalmoscopy to exclude eye disease; correct refractive error and treat ocular muscle imbalance (convergence insufficiency etc). The ophthalmologist should explain to the parents of the child the process of reading, the theories of dyslexia and the controversial and non-controversial therapies whilst working with a multidisciplinary team to ensure that the child receives appropriate remedial treatment.

In conclusion, reading is a complex process requiring a number of sub-skills. Parents of dyslexic children are looking for a quick fix but understand common sense.

- Dyslexia is best explained by the theory of brain dysfunction.
- Management must be based on science, not on arbitrary and capricious dogma.
- There is no credible evidence to support claims for treatment not based on appropriate remedial reading intervention.
- All children with dyslexia must have a thorough orthoptic and ophthalmic examination.
- The ophthalmologist has a role in diagnosis and correction of sensory deficits relating to vision, and must guide the parents towards appropriate remedial assistance for their child.
- As doctors, ophthalmologists have a responsibility to help families make the best use of limited resources. We should steer families away from unproven interventions that consume resources and thus interfere with the implementation of proven methodologies such as educational and language based therapy.

The Royal Australian and New Zealand College of Opthalmologists (RANZCO) has endorsed the joint statement from the American Association of Paediatrics, American Association of Paediatric Ophthalmologists and Strabismus, the American Association of Certified Orthoptists and the American Academy of Ophthalmologists on 'Learning Disabilities, Dyslexia and Vision'. This statement was reaffirmed by the groups in 2014 and has appended to it a references and resource list for professionals and parents of children with dyslexia.

References

A detailed reference list is available on request from: eye2eye@ranzco.edu.

We would like to thank Eye2Eye, the newsletter of RANZCO, for their kind permission to reproduce this important article.

At the coalface with Mark McClements

Simmone Pogorzelski

Moving countries and changing careers is not uncommon in these times of global migration, but it is not without its challenges. A finalist in the 2016 WA Beginning Teacher of the Year awards, Mark McClements has successfully navigated a change from soccer coach to Year 1 classroom teacher, a move that has brought him both professional accolades and personal satisfaction. Having traded in his soccer boots for a career in teaching, he is kicking some early goals both in the classroom and at the whole school level.

It was with great excitement that I entered Mark McClements' Year 1 classroom. A former student of mine, I had asked Mark if I could come and observe his literacy block in action. I knew that he would do a good job. Mark had been an outstanding pre-service teacher and he was passionate about making a difference in the lives of children. For the next two hours, I observed as Mark presented a highly structured literacy session, showcasing both his and his students' talents. Using humour, warmth and intelligence, Mark challenged the children to be the best they could be. It wasn't hard to see why he was nominated for a beginning teacher of the year award. Not long after my visit, I sat down with him to find out more about what motivates him as a teacher.

What motivated you to change careers and move into teaching?

I had experience and enjoyed working with children in my former role as a soccer coach. When I moved to Australia and my career in soccer coaching in WA didn't work out as I had planned, I looked around and wondered what else I might do. I felt I had some transferable skills having coached children in soccer and when I stumbled across the Graduate Diploma of Primary Teaching residency program at Edith Cowan University (ECU), I applied to do the course. I was accepted, and haven't looked back!

Do you feel your teaching course prepared you for the demands of teaching?

Yes absolutely, I loved my course. The biggest drawcard for me was that I spent time in the classroom right from the start of the year. I had two days in the classroom from week one of the program; from the outset I was experiencing classroom teaching, building relationships with students, and learning the logistics that are in place for the start of the year.

Being able to see and experience this gave me an insight and an advantage over other education students who didn't go into a school setting straight away. By the time I had arrived at my practicum I had been in a classroom for a whole year, and it really gave me an insight into the 'how' of teaching. Everything that I learned in the course could be applied straight away.

I liken it to the 'Gradual Release of Responsibility Model'; I was doing little bits every week, little and often, and that allowed me to build up my repertoire of skills, so by the time I started my full-time practicum I had all these hours of experience built up that allowed me to tackle my practicum confidently.

I was fortunate that I was at a school that embraced the Graduate Diploma program and reinforced the content that I was taught at ECU. I had a mentor teacher that supported explicit instruction and the research on best practice in teaching children to read. I was learning about reading models that were based on evidence, and then I saw this in action in the classroom. It was very helpful in terms of my development as a teacher.

How confident are you in teaching reading in Year 1?

I'm fairly confident because the teaching course I completed was fabulous for both the theory and practical elements of teaching reading. The course was focused on ensuring that as new teachers we had knowledge about the sound system of language and, in particular, that we had been taught models of reading based on current research.

What support did you have as a new teacher? Has support from the school continued?

When I first started at Challis Community Public School (CPS), the support from the school was outstanding and it continues to be so. At Challis CPS we have an extra hour of DOTT (Duties Other Than Teaching) provided each week. This allows for our team to get together to collaboratively plan or reflect on our practice and make sure we are consistent within our year group. This is crucial as we have six Year 1 classes!

Making sure we are implementing practice that is effective and based on research helps us to meet our school goals. At Challis CPS we have systems in place that support our development as teachers. Peer coaching and opportunities to observe our colleagues teach are helpful in terms of our knowledge and development. As a team, we can observe each other's warm ups and explicit instruction lessons, or the use of collaborative strategies in the classroom. I find the ongoing professional development in our school very helpful.

At a whole school level we've got a scope and sequence for all of our teaching, which is provided for us and is really useful. We have a curriculum leader who I have access to freely, so we can talk through any issues.

In addition to this, I'm lucky enough to be in contact with my lecturers from ECU, who always make themselves available to answer any queries, recommend someone or a particular piece of research to read, to help me along my way, which I appreciate.

Do you manage to keep up to date with the literacy/reading research? How do you do this?

The hardest thing is time management. Obviously the job is full on and I'm a dad with two young children. Time constraints at home are taxing, but I do try and set time aside to do my own

professional reading. I'm an avid follower of Twitter (I follow a number of UK and Australian teachers and experts in the field) and my principal will pass things on for me to read. Reading what the experts recommend saves a lot of time; I know that it's going to be useful and helpful in a practical way in the classroom.

How easy do you find it to implement changes based on the research in your classroom?

I'm quite flexible in the classroom, and if I see or hear evidence that something is better, I'm quite good at implementing it straight away. But if it is a major overhaul I might park the idea or change until the next term, and I'll reflect on it and think how best to do it.

One major overhaul in your classroom has been the introduction of streaming. How have you done this? How have parents responded, how successful is it, and how has the school managed the expectations around such a significant change?

At Challis CPS we have a very strong parent community. We try and foster this relationship by keeping parents up to date and informed about everything we do in the classroom. I have a classroom Facebook page and a Twitter account, which helps to keep parents informed. We try and communicate that everything that we are doing is for the benefit of their children.

One big change to our Year 1 classroom this year has been the introduction of streaming during the literacy block. We have 22 children in each class and our data indicated that a particular group of children were not moving up levels in text reading. These children were making progress but not at the rate that we hoped for.

The solution was to take the lowest performing students from each of our six classes and provide instruction at their level with an experienced reading teacher. We are providing intensive instruction, tailored to the needs of the group.

The data is promising and the children appear enthusiastic and keen to learn. We have decided to continue until the end of the year and assess the data before making a determination about whether or not to continue with streaming next year.

How do you teach literacy in Year 1?

We have a two-hour literacy block that is non-negotiable. During this time we implement a 15-minute warm up session, where we review previously taught skills. We teach phonics using a synthetic approach. We teach new phonic skills explicitly, at the sentence and the text level, and we ensure that the children get lots of reading practice, using decodable texts initially before moving them on to levelled readers. As the children read more complex text we can focus on comprehension and fluency in our guided reading groups.

How do you meet all the objectives of ACARA in a Year 1 classroom? How do you fit everything in?

While ACARA is very demanding, we do find creative and flexible ways of ensuring we teach all the content. We might for example introduce a non-fiction text during our guided reading. If we have to cover procedures as part of writing, we can cover this in reading also. We draw on and make use of our specialist teachers. We can, for example, cover the text type of 'procedures' in reading and writing, which will be helpful for science. In maths we have been learning about cylinders, this is tied in with an art unit that was being implemented by our artist in residence.

Whole school planning documents and a scope and sequence ensure that we cover everything from ACARA that we need to. We prioritise literacy, seeing it as a foundation for everything else. With regard to the literacy strand, we teach beyond what ACARA prescribes for sound and letter knowledge at a Year 1 level.

Historically the school has focused on lower performing students, but what about the children who are performing at the higher levels. How do you accommodate their needs?

The teaching practices employed at Challis CPS have allowed us to narrow the gap between our striving ahead and catch-up groups. This means we can spend more time on developing problem solving skills and other areas of the curriculum for all our students. But we also recognise that we need to accommodate the learning needs of students who are performing at a higher level.

When I first arrived at the school, I found that a lot of the resources in terms of time and programs were earmarked for the catch-up group, and I did wonder about the kids who were performing at a higher level. I made it a personal goal to provide the more able students with more of a challenge. We've started an enrichment program called 'Awesome Authors' for our Year 2 students, and I think our parent community are really pleased that we can offer something for lower primary students outside of reading. Reading is very important at our school, and it underpins everything we do, but my personal enthusiasm for teaching writing has kick-started some new programs and we are now hoping to extend the program to other year groups and bring more teachers on board.

This is great for a community that has always had as its main focus intervention and catch-up.

Yes, the school has a strong history of community service and of raising literacy levels, but now after years of success and a number of programs in place we are at the point where we actually need to accommodate the group that are striving ahead. This is a great position to be in.

What's next for you in teaching?

This year, in addition to my role as a classroom teacher, I've been responsible for implementing a whole school writing program. We now have in place a whole school plan for teaching writing across the school years. It's early days but we've seen some great improvement already in our NAPLAN data; writing has been identified as a key factor in the improvements we've had. We've also seen some great improvements in our Year 1 cohort, especially in boys and our EAL students.

I'm going to continue with this role and also move to an upper primary class to model and showcase the teaching of writing. This is a new era for Challis CPS and for me. We have had a huge focus on reading and are starting to establish a

good rich history in maths also. Writing has been identified as the next area of growth to focus on. We have a plan and we have had some early successes. Our Year 1 students won a national writing competition at the beginning of the year. We've had some nice early wins and we have structures in place to support our teachers on this new journey.

What are the most challenging aspects of your job in the classroom?

Some days, children come to class affected by a lot of external factors that impact on our school day and the ability of the student to learn. That's the biggest challenge I face as a classroom teacher.

What do you most enjoy about teaching?

The best part of the day is the laughs that we have in class: whether it's enjoying something I've taught and I can see a child using it, or whether it's the enjoyment of when the children love coming to school. I think that's the biggest one. If they love coming to school, if they've got an enjoyment for learning, and learning because they like learning, not because they are going to move up on a list, but because they have an intrinsic motivation to want to learn, that's my job.

If you had a magic wand and could change anything in the education system, what would you wish for? What would make the biggest difference to the lives of your Year 1 children?

Hopefully I am making a difference.

Making sure we are implementing practice that is effective and based on research helps us to meet our school goals.

The data is important and the programs we are using are making a difference to children's lives in terms of what they are learning. But we also need to ensure that the health and wellbeing of our children is our main priority. If during my literacy block I have a child that comes to school unfed or exhausted from lack of sleep, I'll sort that out first. If I need to put them to bed, or put them in the reading corner, so that they can have a sleep, then I'll do that. If they need to be fed, I'll send them to the breakfast club or I'll get some lunch for them. As much as we want to progress our children in their learning, their health and wellbeing comes first.

If I could have every child come to class well-fed and well rested, it would make my literacy block much more efficient. We are doing what we can, we are working with our community to make sure that they are doing everything they can do to make sure every child is in the right place, at the right time, ready to learn. I want the children to want to learn, to know that school is the best place for them to be, and given time, given the best practice that is in place, the cumulative learning over their primary years, will put them in good stead to have 'better than postcode' results.

That's the magic wand!

STOP PRESS

Since this interview was conducted, it has been announced that Mark McClements is the WINNER of the WA Beginning Teacher of the Year Award for 2016. Congratulations Mark!

Simmone Pogorzelski is a senior product developer with Multilit and is currently involved in the development of InitiaLit, a whole class beginning reading program. Based in Perth, WA, she also lectures and tutors casually with the School of Education at Edith Cowan University. Email: simmone.pogorzelski@multilit.com

What would you have had me do, Mem?

Jackie Nieuwenhuizen

Mem Fox says all kids will learn to read if they are exposed to enough books, words, stories. But here's the thing … I have two boys, one learned to read, one didn't.

The boys' grandmother happens to be Agnes Nieuwenhuizen, founder of the Centre for Youth Literature. The boys' grandfather happens to be John Nieuwenhuizen, highly regarded translator of books from Dutch into English. The boys' uncle, as it happens, was John Nieuwenhuizen (Jnr), publisher and director for some time of the Sydney Writers' Festival and author. Two of the boys' aunts happen to be editors, their dad works in a library. Me, I am a primary teacher with a specialisation in literacy. They are surrounded by books, by a love of books, by talk about books, by the richest imaginable reading culture. They go to libraries, book events, book shops, books are treats to be savoured and yet … one learned to read and one, at first, did not.

In the world according to Mem, this should not be possible. We provided the richest possible soil for reading to grow in and yet one learned to read and one, at first, did not. In the world according to Mem, children WILL learn to read as long as the soil is rich. They will not need to be TAUGHT. They will not need to be given, as well as rich soil, rich direct, clear, systematic teaching in the mechanics of reading. The problem is that vast amounts of evidence says otherwise; that my wide experience with children learning to read says otherwise; that mothers of seven-year-old boys frequently tell me otherwise; that my son in front of my eyes was otherwise.

What in the world of Mem should I have done then? Continued to do what was failing to teach him to read? According to Mem he should be reading – all the necessary conditions were met. The problem is, the truth is, HE COULD NOT READ. More fertiliser, more fertiliser, more fertiliser … NO! A scaffold was required.

By the age of seven, he was frustrated and angry. He just could not make head nor tail of the text on the page in front of him. I decided that the time had come to do something, after getting very little from the school. So I sat down with him for 20 minutes a day, five days a week before school. We opened at lesson one of 'Teach Your Child to Read in 100 Easy Lessons' (a phonics-based, systematic, explicit, direct instruction reading program) and I taught him to read. By about lesson 30 he turned to me one day and said "Mum, it's so cool because now I GET IT, now I know how to do it". (I also continued to immerse him in his rich reading culture of course. We were very clear about what was to do with learning HOW TO read and what was to do with books, culture, etc.) He is now a confident, skilled reader and his spelling ability far outshines that of his whole language-taught brother.

The evidence is extremely clear: at least 30% (National Year of Reading suggests 41%) of children will NOT learn to read adequately unless they are TAUGHT using evidence-based programs.

We see the sad ongoing consequences of this daily, in miserable, angry kids who go on to be miserable, angry teenagers and adults who have been let down by a wilful ignoring of the facts.

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Five minutes of phonics to lift child literacy levels

Jennifer Buckingham

The only way to determine accurately whether children are learning the fundamental phonics skills — the relationships between sounds in speech and the letter patterns in written words — they need for early acquisition of reading is to assess what they know at a critical early point in their schooling.

The Australian government proposed a phonics check for Year 1 students in its May 2016 budget. Federal Education Minister Simon Birmingham has since reiterated the government's intention to introduce the Check in Australian schools.

There is a strong precedent for this policy. The UK government introduced a Year 1 Phonics Screening Check in all primary schools in England in 2012. The proportion of students reaching the expected standard in the Year 1 Phonics Screening Check in England has increased since its introduction — from 58% in 2012 to 81% in 2016. The proportion of students failing to achieve the expected standard in Year 2 reading tests has fallen by one third over the same period — from 15% to 10%.

The most effective way to teach phonics is in an explicit and systematic way. This is one of the best-established findings in educational research. Unfortunately, literacy policies and programs in use in Australian schools do not consistently incorporate evidence-based, effective phonics instruction and numerous studies have shown that initial teacher educations courses have not provided teachers with the necessary knowledge and skills to teach in this way.

The result is that Australia has one of the largest proportions of children who do not achieve minimum standards in literacy by Year 4 among English speaking countries. This is preventable and must not be allowed to continue.

The Phonics Screening Check is not an 'exam'. It is not high stakes and is not onerous for students or schools. The Check takes 5–7 minutes per student to administer by a teacher. It comprises 20 real words and 20 pseudo-words. Pseudo words are included because pupils will not have encountered them before and therefore will not be able to read them as remembered 'sight' words.

The UK Year 1 Phonics Screening Check is an effective and cost-effective measure that could easily be adopted for use in Australian schools with some simple adaptations and improvements that would increase its positive impact without increasing its cost.

Dr Jennifer Buckingham is a senior research fellow and director of the FIVE from FIVE reading project at the Centre for Independent Studies. The FIVE from FIVE project promotes effective reading instruction through its website www.fivefromfive.org.au *and social media* @fivefromfive *and* www.facebook.com/fivefromfive/.

Explainer: What does the term 'synthetic phonics' really mean?

Kevin Wheldall

Pamela Snow

Linda Graham

We three have all been involved in various social media discussions following the publication of Dr Jennifer Buckingham's call for a trial of the UK Phonics Check in Australia and the subsequent article in support of the proposal by Snow, Castles, Wheldall, and Coltheart in The Conversation. The aim of the proposed trial is to determine empirically whether such a check is actually necessary within an Australian context. Why bother if phonics is already being taught well in Australian schools?

As always, however, the devil is in the detail. It all depends on what is meant by 'phonics instruction'.

Clearly, many teachers are incorporating phonics in their teaching already, as one of the Five Big Ideas underpinning effective reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. But what is being delivered in classrooms may not be the most effective form of phonics instruction.

For example, in a joint statement by ALEA (the Australian English Teachers Association) and PETAA (the Primary English Teachers Association of Australia), in response to Buckingham's position paper, the argument is made that:

> We … agree that effective phonics instruction should be explicit, systematic, and sequential … However, ALEA and PETAA argue that this instruction should always occur within genuine literacy events and in contexts meaningful to the student. Our assertion that phonics instruction should be taught in meaningful contexts should not be conflated with the concept that phonics instruction, as Dr Buckingham suggests, is random and '*ad hoc*' …

But it is difficult to imagine how 'explicit, systematic and sequential' phonics instruction could conceivably be delivered effectively in the way suggested. This may be due to confusion regarding terminology.

Synthetic doesn't mean 'fake'

The tensions regarding the way in which phonics should be taught are perhaps exacerbated by widely held misunderstandings about the meaning of certain technical terms. The form of phonics instruction that Buckingham and Snow et al. are advocating is known as **synthetic phonics**, as distinct from **incidental** and **analytic** phonics.

Incidental phonics, as its name suggests, is taught as opportunity arises, and thus cannot seriously be regarded as systematic and sequential, even if it is explicitly taught. Analytic phonics starts at the word level, analysing or breaking down words into their component letter sounds, and as such is not a starting point in reading instruction. Incidental and analytic phonics often meet in practice; e.g. when a child is encouraged to "sound out" the first letter of an unfamiliar word they encounter when reading a book.

But it is the term *synthetic phonics* that is most widely misunderstood. Frankly, it is not a helpful term but we appear to be stuck with it as it is widely employed in the UK and Australian literature. (It is not used in the United States, however, where the term *linguistic phonics* refers to a similar approach.)

So, what is meant by 'synthetic' in this context? Apart from being truly 'explicit, systematic, and sequential', synthetic phonics, quite simply, refers to the process of synthesis, of synthesising known letter sounds to read 'through the word'.

Another way of describing this process is **blending.** Once a basic set of letter sounds have been taught, say "a", "s", "t", "i", "l", "n", and "m", children are taught how to blend these letter sounds into words: s-a-t; m-a-t; t-i-n; l-i-t; and also

to **segment** words so they can see how meaning changes as sound-letter patterns change. In this way, teachers systematically (not incidentally) teach the various letter combinations that represent the 44 sounds that we use in English, and they do this as the starting point in reading instruction.

Unfortunately, the word 'synthetic' has connotations other than this technical usage. It can mean artificial or man-made as against natural; nylon or plastic, for example. It should not be surprising, then, that it is to this meaning that those not closely connected to scientific reading research might be drawn. In our experience, it is a distinction that many teachers have not encountered. This creates fertile ground for discussion to be occurring at cross-purposes.

This particularly applies in the context of the proposed Phonics Screening Check, which includes non-words or pseudowords to test for generalisation of letter sound learning (poth, shan, veen, etc). It almost begs the (false) assumption that the underlying idea is to teach and test artificial, synthetic, non-real, pseudowords. Hence, the myth is born that synthetic phonics involves teaching phonics by teaching pseudowords.

This is simply not true and those teachers in the UK who have attempted to teach possible pseudowords that might crop up in the check are inadvertently distorting the purpose of the whole exercise: to test whether their regular phonics instruction is sufficiently effective so that it generalises to previously unseen pseudowords, and provides all children with the critical decoding skills they need to be effective readers.

So, whose fault is this misunderstanding? The reading scientists for using impenetrable jargon and not communicating effectively? The educators for not doing their (reading) science homework and not keeping up to date? Neither or both of the above?

We subscribe to the view that it is simply an unfortunate fallacy that has sprung up. It is nobody's fault but it is a fallacy that has perhaps hindered trans-disciplinary communication about effective reading instruction. There is nothing artificial or unnatural about synthetic phonics instruction.

Why do we need to overcome such misunderstandings?

All children need to learn to decode, but some require much more explicit teaching in this skill than others. In particular, children who may be vulnerable with respect to early oral language skills are likely to need (and benefit from) early teaching that has a focus on phonemic awareness (the ability to hear, blend and segment sounds within words) as the starting point in their reading instruction, along with strategies that promote comprehension.

Without such explicit instruction, these children run the risk of being part of the so-called long tail of under-achievement with respect to reading skills and it is these children who are being missed in the academic debate over approaches to phonics instruction in Australia.

For many children, 'revealing the code' that more fortunate others may well learn through incidental means is a critically important step in the process of learning to read, without which they may experience ongoing school failure. Moreover, we cannot know in advance just who these children will turn out to be and so we need to offer effective synthetic phonics instruction to all children initially. If there is a means to avoid children experiencing failure in learning to read, we cannot, as a community that cares deeply about children's life chances, continue to argue at cross-purposes.

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