

# BULLETIN

## From the President

I hope LDA members, as well as students and their families, were able to benefit from the break in routine over summer and have returned to their occupations and studies with renewed vigour. In this Bulletin you will find a smorgasbord of interesting articles to whet your appetite for discussion, thinking and acting.

The topic of professional development (PD) is on my mind. We all realise that PD is now compulsory for many skilled employees and for professional membership of work-related organisations such as LDA. While some people welcome the opportunity to undertake PD, others question the need. Sometimes this questioning is due to ignorance. I admit that when I had completed my three years of teacher training, I was naïve enough to think that if only I could remember everything I had been taught, that was all I would ever need to know. Now I am very much older and hopefully a little wiser, and I appreciate that the more you know about something, the more you realise there is to learn. You will never know it all.

Unfortunately, from around the 1970s era, primary teachers were exposed to methods of teaching literacy and maths that did away with explicit, systematic instruction including some of the vital underpinnings of effective learning, such as phonics in literacy and times tables in maths. These teachers, as well as many current young graduates, are confused about how best to help their students, and are eager to participate in relevant PD. Those of us who were teachers before the 1970s were fortunate to have been taught the basics of what teachers now need. But even for us, the best of good teaching needs fine-tuning. Through PD we are refreshed

with new skills and knowledge or reminded of information we had forgotten. Continuous professional development keeps us interested and up to date. The internet offers more information than any one person can absorb, but there is much misinformation too. LDA's publications and recommended seminars provide excellent, relatively low-cost PD, and can also aid you to weed out persuasive but misguided information from other sources.

The national tour of Dr Louisa Moats in March, to Sydney, Gold Coast, Brisbane, Perth and Melbourne, is LDA's major PD event of the year. Dr Moats certainly inspires us with her passion and entertains us with her dynamic and engaging delivery. Her presentations demonstrate the effectiveness of scientifically-based interventions compared to less effective ones. She always shares new and useful knowledge of programs, approaches and resources, in order to assist not only all professionals who work with those who have learning difficulties but also parents and members of the wider educational community, including policy and decision-makers in universities and government. PD participants in Melbourne will also have the opportunity to attend the presentation of the 2014 Eminent Researcher Award to Dr Moats and the LDA Mona Tobias Award to Mandy Nayton, Executive Officer of the Dyslexia SPELD Foundation (WA) and President of AUSPELD, in recognition of her outstanding contribution in the field of learning disabilities. You may remember reading Mandy's excellent article on comprehension in the previous Bulletin (V46, No 3, October 2014).

In August Professor Julian Elliott, from Durham University,



will be visiting Sydney, Canberra, Melbourne and Brisbane, and will be presenting a series of talks on his view of dyslexia. His presentations are likely to challenge both the way we use the term and our thoughts about its usefulness as a diagnosis. He argues that the beliefs of different professionals about dyslexia are so varied as to be confusing, and suggests that the hope of worried parents that a diagnosis will result in effective forms of treatment may be incorrect. This topic certainly will be a challenge, as most of us have rather loosely used the term 'dyslexic' as a form of common understanding (we believe). The term is also widely used in Australia and worldwide by organisations that focus on the needs of students with learning disabilities, and by schools, such as Robina State School, that really try to provide for these students through 'dyslexia-friendly' philosophies. You can read about their work in this issue of the Bulletin.

You will be informed of other LD PD via the website and e-News. In the meantime, read (and even reread) this Bulletin. I hope you will have enjoyed one of Dr Moats' sessions and any other PD relevant to your area of expertise. May 2015 offer good learning experiences for both LDA members and the children we support!

**Jan Roberts**  
President

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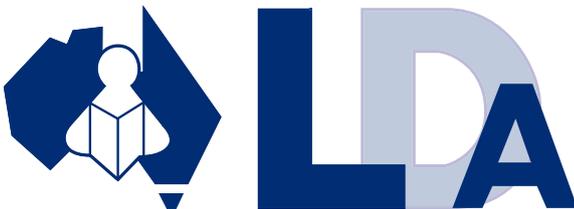
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## LDA Mission Statement

Learning Difficulties Australia is an association of teachers and other professionals dedicated to assisting students with learning difficulties through effective teaching practices based on scientific research, both in the classroom and through individualised instruction.

For more details of LDA activities, professional development opportunities and publications, visit our website at [www.ldaustralia.org](http://www.ldaustralia.org)

# LDA Special Award to Kevin Wheldall

LDA has pleasure in announcing a Special LDA Award for Emeritus Professor Kevin Wheldall, AM, in recognition of his services to LDA, and particularly his contribution to our LDA publications.

Kevin joined LDA Council in August 2004, and was President of Council from 2006 to 2007. On joining LDA he took on the role of Convenor of the LDA Publications Committee, and in this role he played a large part in developing both the Bulletin and the Journal into the high quality publications we now have. He was Joint Editor of the Australian Journal of Learning Difficulties from 2005 to 2014, and is now continuing to edit the Journal as the sole Editor. He was also Joint Editor of the Bulletin in 2005, and again from 2012 to 2014.

Kevin has researched and written extensively in the areas of learning and behaviour difficulties, with particular emphasis on classroom behaviour management and helping low progress readers. He is particularly well known for the development of the various intensive literacy intervention programs

published by MultiLit, a University spin-off company that continues to develop and market research-based reading programs.

He has played a significant role in encouraging the publication of research and information relating to effective teaching of students with learning difficulties at both an academic level and for a teacher audience, advocating for effective reading instruction for all students. He is a Fellow of the Academy of Social Sciences in Australia and of the International Academy for Research in Learning Disabilities, and has served on a number of government and community Advisory bodies to provide advice on educational matters. In 2014 he received the Outstanding Contribution to Special Education Award from the Australian Association of Special Education (AASE). He was also the recipient of the LDA Mona Tobias Award in 2008 and was awarded the Member of the Order of Australia (AM) for services to literacy in 2011.

LDA considers itself very fortunate to have had the benefit of Kevin's expertise for so many years.



*Kevin Wheldall played a large part in developing both the Bulletin and the Journal into the high quality publications we now have.*

## From the new Bulletin editorial team

Members of LDA may have noticed that there has been a change in the Editorship of the Bulletin. This is the second issue of the Bulletin produced by the new team, comprising Wendy Moore, as Editor, assisted by Alison McMurtrie, Roslyn Neilson and Molly de Lemos.

We would like to take this opportunity to thank the previous editorial team for all the work that they have done on the Bulletin over the past few years, giving it a new and more colourful image, and a depth of informative articles on a wide range of topics. It will be a hard act to follow. We would also like to congratulate Kevin Wheldall on his Special Award in recognition of his contribution to LDA, and particularly to its publications. His ongoing commitment to ensuring the high quality of LDA publications has as we are sure been much appreciated

by our members. His dedicated efforts have kept us all informed of relevant research and practice relating to the support of students with learning difficulties. We also thank Alison Madelaine for her role in supporting our publications over the past ten years, and the Flapjack team, Freya Purnell and Justin Knights, for their work on the design and editing of the Bulletin.

We hope to maintain the high standards set by the previous Bulletin team, and would really love contributions from our members - be they reviews of resources or programs, letters to the editor, or action research projects that they have undertaken in their schools or practices.

Wendy Moore, Alison McMurtrie, Roslyn Neilson, Molly de Lemos

# Commentary: Review is the opposite of back to basics

Jennifer Buckingham

Dr Jennifer Buckingham is a Research Fellow at The Centre for Independent Studies and co-author of the policy paper 'Why Jaydon Can't Read'. She has published papers on school choice, school funding, literacy, international assessments (including PISA), NAPLAN and My School, religious schools, boys' education, teacher training and employment, class size, and educational disadvantage.

The review of the Australian curriculum published in October has frequently been described as a proposal for a 'back to basics' curriculum. Even federal education minister Christopher Pyne has repeatedly talked about 'the basics' in media commentary about the review. It is easy to see why the report has been characterised in this way. It recommends placing more emphasis on traditional, teacher-directed teaching methods – especially in early literacy – and it favours reducing the number of subjects required to be covered in primary schools. It advises that curriculum documents be made less complex and unwieldy.

Yet the term 'back to basics' fundamentally misrepresents the nature of the report's proposed changes to the Australian curriculum. 'Back to basics' suggests a stripped-back, hollowed-out curriculum that is utilitarian and skills-based. What is proposed in the report is in fact quite the reverse.

A large part of the report is devoted to a discussion of the importance of content – facts, knowledge, experiences and concepts – arguing strongly that school curricula should not be shallow statements of 'learning outcomes' and themes. It is a call to recognise the importance of intellectual rigor and depth to the subjects studied in school, providing a persuasive counterpoint to the trend

over recent years for schools to focus on '21st century skills' and 'learning how to learn'.

To do this, report authors Kevin Donnelly and Ken Wiltshire liberally quote some of the best thinkers on education, who hail from all parts of the political spectrum. Among them is E. D. Hirsch, who has been hugely influential in curriculum development in the United States through his Core Knowledge program. Hirsch argues that the development of so-called general capabilities does not occur in an abstract way. Rather, thinking and reasoning skills are best learned in the context of specific and concrete knowledge.

It is, of course, essential for children to learn how to think; but first they need something to think about. While this principle applies to all children, Hirsch further argues that not providing a content-rich curriculum most disadvantages children from low socioeconomic backgrounds whose parents are less likely to have exposed them to a broad range of facts and concepts at home.

The teaching of reading is a prime example of where traditional, well-structured teaching is mistakenly construed as being 'drill and kill' – that is, lifeless and content-free. In fact, research on reading instruction shows that while phonic knowledge (the relationship between letters and sounds) must be taught explicitly and systematically, the most effective literacy programs then integrate phonic skills into the reading of text in a purposeful way. The very best reading programs also use inspiring and entertaining children's literature to help develop vocabulary and comprehension. All of these elements are necessary for a child to become a proficient and enthusiastic reader.

International studies are showing that what works for reading instruction also works for maths. Analysis of data from OECD's Program for International Student Assessment found that



high achievement in mathematical literacy (maths questions framed as word problems) among 15-year-olds was strongly related to exposure to formal mathematics education rather than applied mathematics or word problems. Another recent study of primary school students found that children's mathematical knowledge

*It is a call to recognise the importance of intellectual rigor and depth to the subjects studied in school, providing a persuasive counterpoint to the trend over recent years for schools to focus on '21st century skills' and 'learning how to learn'.*

was greater when they were provided with explicit conceptual instruction prior to attempting to solve problems – the opposite of the constructivist approach.

While pedagogy (the way teachers teach) is often considered separately to content, they are linked inasmuch as the importance of a strong curriculum (and related syllabi) becomes paramount when you have a deficit of subject specialist teachers. The less expert the teacher, the greater the need for a detailed curriculum. In Australia, this is unfortunately the situation, especially in science, maths and economics – subjects that are vitally important to our country's progress.

Educationists talk about the intended curriculum versus the delivered curriculum. The Australian curriculum is the intended curriculum. The delivered curriculum is what children are

actually taught. The convergence of the two is highly dependent on the ability and motivation of teachers. Without expert teachers, both in subject knowledge and pedagogy, the intended curriculum can only penetrate so far.

Notwithstanding the teacher quality qualifier, the curriculum review is a critical juncture in Australian education. The report contains much of value and substance and deserves deeper analysis and discussion.

*This article, first published in the Australian Financial Review, is available on the CIS website at <http://www.cis.org.au/media-information/opinion-pieces/article/5336-comment-review-is-reverse-of-back-to-basics> and is reproduced here with the kind permission of the author.*

*The teaching of reading is a prime example of where traditional, well-structured teaching is mistakenly construed as being 'drill and kill'*

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For detailed information on the conference, prices and online booking, visit the LSTAQ web site at [www.lstaq.asn.au](http://www.lstaq.asn.au)

# Neuroscience, education and educational efficacy research

**Max Coltheart and Genevieve McArthur**

Centre for Cognitive Disorders and  
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Max Coltheart is Emeritus Professor of Cognitive Science at Macquarie University. Associate Professor Genevieve McArthur is Director of the Macquarie University Cognition Clinic for Reading at the Macquarie Centre for Cognitive Science. This article is reprinted with kind permission from a book chapter of the same name in S.D. Sala & M. Anderson (Eds.), *Neuroscience in Education: The good, the bad and the ugly* (2012). Oxford: Oxford University Press.

**T**here exists a plethora of commercial products that are claimed to be of assistance for children with educational difficulties, especially “learning disabilities”. Typically these products are claimed by their originators to be based on something neuroscientific, or at least to be “inspired” by neuroscience. For many of these programs, any true link with neuroscience is non-existent, or tenuous at best. But parents and even teachers are not well-placed to evaluate the relative merits of such programmes, or to decide whether the strong claims for efficacy made by the programme vendors are justified or not.

Consider, for example, the Miracle Belt, a weighted belt that was invented by a professional baseball player in the USA in 2004. According to the website for this product, <http://www.miraclebelt.com/>, wearing this belt for periods of time will “benefit children diagnosed with Autism, Attention Deficit Disorder (ADD), Attention Deficit Hyperactivity Disorder (ADHD), Angelman syndrome, Apraxia, Aspergers syndrome (AS), Ataxia, Cerebral Palsy, Down syndrome, Dyslexia, Fetal Alcohol syndrome (FAS), Hypotonia, Pervasive

Developmental Disorder (PDD-NOS), Prader-Willi syndrome (PWS), Rett syndrome, Sensory Integration Disorder (SID), and Sensory Processing Disorder (SPD).”

How could a parent of a child suffering from any of these

17 disorders, or a

clinician concerned with the treatment of these disorders, decide whether the Miracle Belt is in fact beneficial for such children?

The website offers a neuroscientific rationale for the product: “Weighted therapy products have been found to help stimulate interaction between the brain and the senses which is crucial for healthy neurological function. Miscommunication between the brain and the senses can be regulated with the use of sensory therapy products, weighted products, such as weighted belts, weighted blankets, and/or weighted lap pads. By stimulating the proprioceptive system these weighted products help to increase neurological feedback to the brain. Seeking to encourage the nervous system to integrate sensory information through the use of weighted sensory products can make a dramatic impact in the development of your child.”

The site also quotes approving testimonials from 52 people: these consist of 24 from family members of affected children and 28 from professionals of various kinds (including 14 from occupational therapists).

But what the site does not provide is any evidence that the treatment is efficacious for any of the 17 disorders mentioned.

## Using anecdotes and testimonials to assess an educational treatment

It is very common for educational product websites to include anecdotes



or testimonials praising the product. No matter how glowing these are, the reasons for ignoring them are numerous. These include:

- The sample is selected by an interested party: there is no way of knowing whether a poll of a random sample of users of the product would return an overall positive or overall negative verdict;
- The data are subjective, reflecting merely the opinions of those providing the anecdotes or testimonials rather than objective measurements of any aspects of behaviour of the treated children;
- Commercially available products claiming to assist children with any kind of educational or cognitive difficulty, such as a reading difficulty, are often expensive. It is not easy for parents or teachers who have bought and used such products to accept that a large financial outlay has not after all assisted the children with whom the product was used.

These issues are well-illustrated in a study of Sunflower Therapy carried out by Bull (2007). According to the Sunflower Therapy website at <http://www.sunflowertrust.com/>, this therapy has “helped thousands of children. Many have obvious learning difficulties: dyslexia, dyspraxia, ADD, ADHD, Aspergers Syndrome, Autism.” The website includes some positive anecdotal case studies and some claims about the neuroscientific basis of the therapy, with references to kinesiology and neurolinguistic programming.

Bull (2007) carried out a randomised control trial with 70 dyslexic children aged 6-13 years. After treatment with Sunflower Therapy, children in the treated group scored significantly higher than children in the untreated group on two subjective measures: a questionnaire on academic self-esteem and a questionnaire on reading self-esteem. The majority of parents (57.13%) of the treated children subjectively judged that the treatment had been effective. However, the treatment had no effect on objective measures of reading comprehension, word recognition or spelling. This is a very clear illustration of why subjective measures such as anecdotes and testimonials should be ignored when one is seeking to evaluate the effectiveness of any method claiming to ameliorate any kind of educational or cognitive difficulty, such as reading difficulties, spelling disorders, or spoken language impairments.

### Using controlled trials to assess educational treatments

The web sites for the Miracle Belt and Sunflower Therapy treatments do not report any research aimed at investigating the efficacy of these treatment methods, and hence do not provide any objective evidence that these treatments are beneficial for any conditions. The term Miracle Belt yielded no hits on the PsycInfo and Medline publication databases, and the only hit for Sunflower Therapy on either database was the Bull study described above.

However, some web sites for commercially available treatment methods do provide references to such research. One example is the Davis Dyslexia Correction method (see <http://www.dyslexia.com>). At <http://www.dyslexia.com/science/research.htm>, one can find a section entitled "Published Peer-Reviewed Research" which cites four publications. The first of these is authored by people from the Davis Dyslexia organization, and all four are in somewhat exotic journals (*Reading Improvement*, a magazine published by Project Innovation, Alabama; *New Thoughts on Education*, which is published from the Faculty of Education and Psychology of the University of Iran;

*Africa Education Review*, published from the Faculty of Education of the University of South Africa; and the *Pertanika Journal of Social Sciences and Humanities*, which is the official journal of Universiti Putra Malaysia) but of course it does not follow from any of this that all four of these studies were methodologically inadequate.

But what do we mean here by "methodologically inadequate"? What methodological criteria must be met by a treatment study in order for it to qualify as methodologically adequate?

If it is claimed that any cognitive ability, such as reading, has been improved by a treatment, then that cognitive ability must be tested both before treatment begins (pre-test) and after the treatment has finished (post-test). If statistics reveal that performance on a cognitive test is not significantly higher at post-test than pre-test, then no claim for efficacy of the treatment can be made.

But suppose that an appropriate statistical analysis has been done and performance on the cognitive test after treatment was significantly better than before treatment. Is this sufficient to claim that the treatment worked? No, because several other confounding factors could explain that improvement. These confounding factors - which must be ruled out for a claim of efficacy to be justifiable - are:

- a. A test-retest or practice effect: performance was better in the post-test because children had practice doing the tests in the pre-test.
- b. Maturation effect: The children performed better on the cognitive tests in the post-test than in the pre-test because they were older and had received more education in the interim.
- c. Regression to the mean: if a treatment group is selected on the basis of having particularly poor performance on a cognitive test at pre-test, then their extreme scores are expected to be a bit closer to the population mean at post-test for purely statistical reasons. The lower the psychometric reliability of the cognitive test being used, the larger the regression-to-the-mean effect will be.

*As far as assessing the effectiveness of educational treatments is concerned, then, neuroscience does not speak to education. Efficacy studies of treatments for educational difficulties must use cognitive tests of the relevant educational abilities before and after treatment.*

- d. A placebo effect: simply receiving treatment, regardless of the nature of that treatment, may improve performance through increased self-confidence or motivation arising from being singled out for any kind of help.

Treatment studies need to be designed so that they can demonstrate that none of these confounding factors can explain the improved performance on a cognitive test after treatment. One way to do this is to conduct a randomised controlled trial. Here one first identifies a group of children in need of treatment. Half of the children are randomly assigned to the treatment group; the other half are assigned to the untreated (control) group. Since the group assignment is done randomly, at pre-test one would expect that the two groups do not differ on the cognitive ability that is to be treated (e.g., a reading difficulty). Suppose that at post-test, the treated group's scores on a test of this cognitive ability

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are significantly higher than the untreated group. This cannot be due to a practice effect because the two groups have had equal amounts of practice on the cognitive test at pre-test; nor can it be due to the treated group being older or more educationally experienced because the untreated control group increased in age and education to the same degree as the treated group over the same period of time; nor can it be due to regression to the mean, because random assignment ensured that the two groups started with the same level of performance on a cognitive task at pre-test.

Thus explanations (a) through (c) above can be safely ruled out. If one is worried about a placebo effect, that can be addressed by giving the untreated group an equal amount of attention and help by providing them with exposure to a different kind of treatment programme, one that has nothing to do with the ability which the study itself is investigating.

One drawback of a traditional randomised control trial is that the control group either misses out on treatment, or is given a treatment that is not expected to work. This is less than ideal for children with cognitive difficulties who desperately need treatment. One solution is to use a different design: the double-baseline controlled trial.

Suppose the treatment is going to take two months. This means that the pre-test and post-test will be separated by two months. In this case, a double-baseline controlled trial adds a "pre-" pre-test (pretest 1). After two months of no treatment, there is a second pre-test (pre-test 2). Then, after 2 months of training, there is a post-test.

If test performance on a cognitive test in pre-test 2 is no different to pre-test 1 (i.e., after 2 months of no training), then (a) the cognitive test being used is not subject to practice effects; (b) the subject's performance is not changing due to increasing age and educational experience; and (c) there is no statistically significant regression effect. Given this, if the subject's scores are then significantly better at post-test than at pre-test 2, then one can rule out these three confounding factors. If one is also concerned about a placebo effect, one

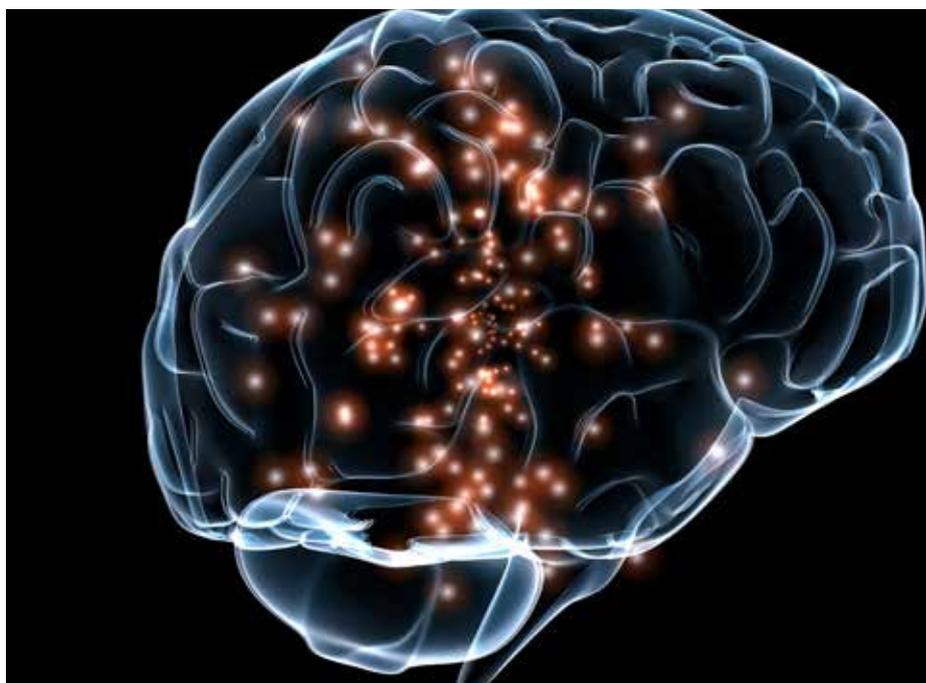
can add to pre-test 1, pre-test 2, and post-test, a test for an ability that is unrelated to the ability being treated. If there is no post-test improvement in performance on tests of this unrelated ability, then there is no placebo effect, and so any superiority at post-test of the treated ability can be ascribed to a specific effect of the particular treatment effect being used.

If treatment effects are to be of practical significance, they must be lasting. The durability of any treatment effect can be assessed by adding a second, delayed, post-test (i.e. post-test 2). That delay – a period in which there is no further

with single cases. So the failure of most commercial programmes that claim to help children with some kind of educational difficulty to provide any evidence that their products actually work is not because there are no sound ways of assessing the efficacy of such treatments.

### Using neuroscientific data to assess educational treatments.

We have described ways in which methodologically rigorous controlled studies of educational treatment programmes can be designed and carried out. The reader may notice that all the examples



treatment – might be two months, or it might be longer – say, six months. Comparison between scores from the delayed post-test 2 and scores from the pretest 2 will help determine how long the treatment effect lasts. Desirable as a delayed post-test is, practical reasons can make this difficult or even impossible; and the occurrence of an improvement in an immediate post-test remains important even if a delayed post-test cannot be carried out.

In sum, randomized controlled trials and double-baseline controlled trials – with or without a delayed post-test – are two methodologically sound treatment study designs that are not difficult to implement. Furthermore, the latter can be used

*It is very common for educational product websites to include anecdotes or testimonials praising the product. No matter how glowing these are, the reasons for ignoring them are numerous.*

of controlled studies that we used measured the effect of treatment using performance on cognitive educational tests. None of our examples measured the effect of treatment using measures of the brain (neuroscientific measures). There is a good reason for this: neuroscientific data cannot tell us if an educational treatment is effective or not.

For example, suppose a study tests the brains of children with some form of educational difficulty immediately before and immediately after an educational treatment (but does not collect behavioural test data). And suppose this study finds a significant effect of treatment on these children's brains that is not explained by any of the confounding factors outlined above. This means that there is a genuine treatment effect on the brain. Does this mean that the treatment has been effective with respect to the children's educational difficulty? We cannot tell. We know that the educational treatment changed the children's brains, but we do not know if these brain changes have fixed their educational difficulty. The only way to find out if the treatment really worked is to use a relevant educational cognitive test to measure the children's educational performance before and after treatment. The neuroscientific data are irrelevant for the purpose of

treatment evaluation.

Now, suppose that a second study tests children with an educational difficulty on a relevant educational cognitive test before and after a treatment (and their brain responses are also measured before and after treatment). And suppose that this study finds a genuine treatment effect on the children's performance on the educational test, but no effect on their brain responses. Does this mean that the treatment was not effective? Clearly not, since the children's performance on the educational cognitive test improved. This improvement must stem from a change in the brain somewhere, but the study failed to detect the neural effect. So the neuroscientific data are again irrelevant. It is the educational cognitive data that tells us that the educational treatment worked.

Suppose instead that in this second study a genuine treatment effect on the brain was found, but there was no effect on the educational cognitive test. Do the changes in the brain mean that the treatment worked? No. The treatment did not alleviate the educational difficulty at which it was aimed and so it was not effective – even though there were changes in the brain. Yet again the neuroscientific data are irrelevant.

As far as assessing the effectiveness of educational treatments is concerned, then, neuroscience does not speak

*None of our examples measured the effect of treatment using measures of the brain (neuroscientific measures). There is a good reason for this: neuroscientific data cannot tell us if an educational treatment is effective or not.*

to education. Efficacy studies of treatments for educational difficulties must use cognitive tests of the relevant educational abilities before and after treatment. Neuroscientific measurements before and after treatment cannot tell us anything about efficacy of educational treatments.

If our conclusion that neuroscience does not speak to education is correct, then we should be alarmed at a number of aspects of teacher training, because teacher trainees are given a very different impression.

In the UK, Howard-Jones (2011) reports a study he and colleagues did of 158 teacher-training graduates about to enter secondary schools. Of this group, 20% believed that their brains would shrink if they drank less than six to eight glasses of water per day; 65% believed that physical coordination exercises could improve the integration of left-hemisphere functions with right-hemisphere functions; and 82% believed that studies of brain function justify the conclusion that teaching children in their preferred learning style could improve learning outcomes. These are of course all neuromyths.

The situation is no better in Australia. BrainGym is an educational programme based upon a model of brain functioning



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as involving three important factors: Laterality, Focussing and Centring. This model is rejected by neuroscientists (Geake, 2008); furthermore, there is no evidence that the BrainGym programme conveys any educational benefits (Hyatt, 2007). Yet the program is widely used in Australian schools, and has official approval on the web sites of the Departments of Education in every Australian State and Territory; and the Departments of Education of New South Wales, Victoria, Tasmania, Queensland and South Australia have all provided funding for teachers to attend BrainGym training classes as professional development. (Stephenson, 2009)

## Conclusions

We began our chapter by asking, in relation to the Miracle Belt, "How could a parent of a child suffering from any of these 17 disorders, or a clinician concerned with the treatment of these disorders, decide whether the Miracle Belt is in fact beneficial for such children?" We'll conclude with a discussion of this question as it applies to any form of educational treatment.

Suppose a parent or clinical professional is considering the use of treatment X (e.g., weighted vests) with a child who has an educational impairment in ability A (e.g., reading). We suggest that here are four scenarios under which it is a reasonable course of action to decide to embark upon treatment X. They are, ordered from the most to least powerful, as follows:

1. There is at least one publication in the peer-reviewed scientific literature that describes a methodologically sound treatment study that found that treatment X improves cognitive ability A in children with an impairment in that ability.
2. The scientific literature provides good reason to believe that treatment X should improve cognitive ability A, though there are no direct demonstrations that this is so.
3. The scientific literature provides good reason to believe that

proficiency in ability B (e.g., spelling) improves the acquisition of cognitive ability A (e.g., reading), and there is at least one publication in the peer-reviewed literature which has shown in a methodologically adequate way that treatment X improves ability B.

4. The scientific literature provides good reason to believe that proficiency in ability B (e.g., spelling) improves the acquisition of cognitive ability A (e.g., reading), and also provides good reason to believe that treatment X should improve the acquisition of ability B (e.g., spelling), though there have not been any direct demonstrations that this is so.

Thus one can consider, in relation to any potential treatment, whether any of these four scenarios hold: if any of them do, then there is at least some evidence for the efficacy of the treatment, and hence some sound justification for embarking on the treatment. In this case, a parent or educator might rationally decide - depending on cost, and on how well the treatment matches their child's difficulties - to try the treatment with their child. However, if none of these four scenarios hold, then the treatment has not been properly assessed by a methodologically sound study (despite any claims on a company's website), and there is currently no scientific basis for that treatment.

We argue that only programmes that fit one of other of these four scenarios can claim to be efficacious. So it is a sobering thought that almost all of the commercially available programmes advertised as capable of assisting children with educational/ cognitive difficulties fail to fit any of these four scenarios at all.

In contemplating the use of such programmes, parents or educators might make one of two decisions. They might decide to stick with the scientific evidence and so not use the treatment. Or they might try the treatment anyway; if so, they need to be fully aware that this decision is a leap in the dark and so the chances of success are limited at best.

*Treatment studies need to be designed so that they can demonstrate that none of these confounding factors can explain the improved performance on a cognitive test after treatment. One way to do this is to conduct a randomised controlled trial.*

## References

- Bull, L. (2007). Sunflower therapy for children with specific learning difficulties (dyslexia): a randomised, controlled trial. *Complementary Therapies in Clinical Practice, 13*, 15-24.
- Geake, J. (2008). Neuromythologies in education. *Educational Research, 50*, 123-133.
- Howard-Jones, P.A. (2011) From brain scan to lesson plan. *The Psychologist, 24*, 110-113
- Hyatt, K. (2007). Building stronger brains or wishful thinking? *Remedial and Special Education, 28*, 117-124.
- Stephenson, Jennifer (2009). Best practice? Advice provided to teachers about the use of Brain Gym® in Australian schools. *Australian Journal of Education, 53*, 108-124.

# ResearchEd Conference in Sydney

**S**aturday 21st February saw about 140 teachers, researchers and interested parties gather at SHORE School in Sydney for the inaugural one day ResearchEd Conference.

ResearchEd, initiated by Tom Bennett from the UK in 2013, is an organisation that aims to raise the research literacy of educators, bring together those who are affected by educational research, promote collaboration between researchers and research-creators, promote the use of good evidence to guide

practice, and challenge research that lacks integrity. These are all aims that LDA supports and encourages.

Having gained momentum in the UK, largely via twitter and other social networking sites, ResearchEd is reaching further afield. The Sydney participants enjoyed a full day of presentations on a range of topics including school improvement, behaviour management, literacy acquisition, and team building, to name a few. A lively panel debate on the role of research in education provided a spark of controversy, with Kevin Donnelly, Kevin Wheldall

(editor of LDA's Journal), and Stephen Dinham on the panel.

Kevin Wheldall also presented a session with Dr Robyn Wheldall on Positive Teaching. Kerry Hempenstall, a regular contributor to LDA's Bulletin and Journal, presented an excellent session on literacy. No doubt this is not the last time we will see ResearchEd in Australia.

To find out more about ResearchEd visit their website: [www.workingoutwhatworks.com](http://www.workingoutwhatworks.com) or follow Tom on Twitter @tombennett71

## Call for nominations for the LDA General Awards 2015

**M**embers of LDA are invited to submit nominations for the 2015 Mona Tobias and Bruce Wicking Awards.

Applications are also called for the 2015 LDA Tertiary Student Award. The LDA Awards are designed to recognise outstanding work in the field of learning difficulties. The closing date for nominations and applications is Friday 12th June, 2015. These Awards are open to both members and non-members of LDA, but nominators must be current members of LDA. LDA reserves the right not to confer an Award in any of these categories if no suitable nomination is received. Please note that nominators may not nominate the same person for more than one Award. Further information regarding the Awards and nomination procedures are provided on the LDA website at [www.ldaustralia.org](http://www.ldaustralia.org).

### The Mona Tobias Award

The Mona Tobias Award is presented in recognition of an outstanding contribution to the field

of learning difficulties in Australia. This contribution may be in the area of leadership, research, practice or teacher and community education. Emily Mona Tobias, B.E.M., died in 1980 at the age of 74 years. She was acknowledged for her exceptional skills as a teacher and her devotion to children with learning difficulties. Mona took early retirement from the Victorian Education Department to study learning disabilities under Sam Clements at the University of Arkansas. This led to her second career where she influenced many teachers and parents of students with learning difficulties. The Mona Tobias Award commemorates the pioneering work of Mona Tobias in helping children and adults with learning difficulties.

### The Bruce Wicking Award

The Bruce Wicking Award is presented to an individual or an organisation in recognition of innovative programs or practices relating to the teaching of children with learning difficulties. Bruce Wicking established the Currajong School in 1974, and was committed to the provision of programs which

catered for the individual needs of children with learning difficulties. The funds for the establishment of this award were provided through the generosity of the Wicking family and their friends to commemorate the life and work of Bruce Wicking.

### The Tertiary Student Award

The LDA Tertiary Student Award is presented in recognition of significant research, which advances the understanding of theoretical and practical issues in the field of learning difficulties, carried out by a student in the course of their tertiary level studies. The Award is based on the submission of a research article to LDA, which will be considered for publication in the Australian Journal of Learning Difficulties.

### Announcement and Presentation of Awards

Recipients of the 2015 Awards will be announced in August. Awards are normally presented at the LDA Annual General Meeting in September, details of which will be confirmed at a later date. Travel and accommodation expenses to attend the ceremony will be met by LDA.

# Vital signs

Kevin Wheldall

Emeritus Professor Kevin Wheldall, AM, is Chairman of MultiLit Pty Ltd and Director of the MultiLit Research Unit. You can follow him on Twitter (@KevinWheldall) where he comments on reading and education (and anything else that takes his fancy). He also has a blog, 'Notes from Harefield: Reflections by Kevin Wheldall on reading, books, education, family, and life in general': [www.kevinwheldall.com](http://www.kevinwheldall.com). Email: [kevin.wheldall@pecas.com.au](mailto:kevin.wheldall@pecas.com.au)

Anyone who has spent time in hospital or has a long-term illness will be well aware of the importance doctors and nurses attach to the continual monitoring of 'vital signs': body temperature, heart rate (or pulse), and blood pressure (BP). Measurement of these vital signs can also be achieved very quickly, easily and frequently. What is perhaps not so commonly known is that these vital signs can be highly variable and subject to considerable fluctuation as a result of varying circumstances.

Blood pressure measurement, for example, can fluctuate from one reading to the next and is particularly susceptible to changes in when and where it is taken and by whom. Sometimes simply being examined by a medical professional can make our blood pressure go up: the 'white coat phenomenon'.

But does this variability in BP measurement mean that it is useless for diagnostic or monitoring purposes? The answer is no, of course not; measures do not need to be totally reliable to be very useful; in detecting hypertension, for example. We can also iron out some of the blips by taking several measures and averaging them or by taking repeated regular readings and looking at BP levels over time. Hypertension or high blood pressure is, of course, not an 'all or nothing' affair since blood pressure is variable across individuals and is on a

continuum. The BP levels we refer to as indicating degrees of hypertension are not magic markers but are, in a sense, arbitrary cut-offs that have proved in practice over time to be useful indicators for detecting potential problems.

By the same token, there are 'vital signs' that are very useful to us when teaching reading. We can measure reading performance reliably enough for it to be very useful to us in practice; to help us in determining which of our students need additional help, for example.

There is another parallel here with hypertension. Some people still seem to believe that dyslexia or reading disability is a clearly differentiated specific condition that is either present or it is not; all or nothing. But reading performance, like BP, is on a continuum and where we set the performance bar to indicate a reading disability is essentially arbitrary. Children vary in the extent to which they display difficulties in reading. By changing the performance criterion, we can define reading disability as referring to 5, 10 or 20% of the population, for example. The decision where to place the bar is a judgement call and is likely to be influenced not only by student need but also by the resources available. To take an extreme example, there is little point identifying 50% of students as being dyslexic if we have resources available to meet the needs of only 5%.

The important thing to bear in mind, then, is that reading difficulties may be present to a greater or lesser extent. Many reading researchers and specialists today would argue that defining dyslexia is a largely futile exercise and that we should concentrate instead on helping all struggling readers to perform at a level that can reasonably be considered as being within an acceptable range for their age. To help us in this endeavour we need good measures of reading performance that are reasonably reliable (like BP they will not be perfect), that are quick and easy to administer, and that we can use to



*Low-progress readers must be monitored on a regular basis to ensure that the interventions being employed are working and that they are making real improvements*

screen for reading problems and to monitor the reading progress of those whose performance is of concern to us frequently, on a regular basis.

Unfortunately, many of the reading tests out there are time-consuming to administer and may only be used reliably at infrequent intervals. Such tests are not very useful to us in monitoring the reading performance of our students.

In recent years, reading researchers have been experimenting with so-called curriculum-based measures of reading that have been shown to be

both remarkably reliable and valid measures of reading performance while being both quick and easy to administer. This new approach to reading assessment also allows teachers and others to test students frequently to monitor progress, by providing numerous different reading passages that have been shown to be of an equal difficulty level. (One such reading assessment instrument, the Wheldall Assessment of Reading Passages (or WARP), has recently been released by MultiLit Pty Ltd: [www.multilit.com](http://www.multilit.com).) When such an effective reading assessment tool is available to them, teachers and others can use the data collected to make instructional decisions so as to tailor their teaching strategies to meet individual student needs.

Like hospital patients, low-progress readers must be monitored on a regular basis to ensure that the interventions being employed are working and that they are making real improvements. Educators need to be like doctors to their students, monitoring their vital signs in reading and ensuring that no student is left behind.

### Acknowledgement

I would like to acknowledge the editorial assistance of my daughter, Rachael Wheldall, with this article.

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## Let's do the time(d) WARP again!

There is a clear need for a good, reliable measure of how well children can read so that those struggling to learn to read can be quickly and easily identified, given extra assistance, and their progress monitored. Reading is such a complex business, however, that most reading tests are usually both time consuming and complicated to administer. But what if a simple, quick method could be established that could be shown to be just as reliable and valid as conventional reading tests? What if, in fact, a measure were to be developed that took only one minute per student, that could be administered frequently, and that required only very simple materials such as short passages of text and a watch with a second hand? This is essentially what the Wheldall Assessment of Reading Passages (WARP, published by MultiLit) aims to provide.

The WARP consists of a series of 200-word passages, each comprising a complete story, which the child being assessed is required to read aloud "as quickly and as carefully as you can". The child's score is the number of words read correctly in one minute. It really is as simple as that. But that only tells you about a child's reading fluency, you might object. The good news is that reading fluency measures like the WARP have been shown to correlate well with measures of both reading accuracy and reading comprehension. The WARP has three Initial Assessment Passages to establish the child's current performance level and a further 10 Progress Monitoring Passages (of very similar difficulty level) to track progress weekly over a school term.

For further details, please see [www.multilit.com/warp](http://www.multilit.com/warp)

# Reading Recovery:

## A review of the efficacy of the approach for children with learning difficulties and learning disabilities

**Rachel M. Catley**

Rachel Catley was a Deputy Head Teacher at the British International School of Jeddah, Saudi Arabia. She has also worked as a Learning Support Teacher and Classroom Teacher in London and Perth. Rachel is currently a Classroom Teacher at the Fremantle Language Development Centre and is continuing her studies at Edith Cowan University in the area of Learning Difficulties.

**W**ith many different teaching approaches, strategies and interventions becoming available for teaching reading to early learners, educators are being advised to look into the merit of the teaching methods they introduce in their schools. In particular, schools need to keep evaluating what they offer to children with reading difficulties to ensure that their practices are supported by current research evidence.

Reading Recovery (RR) is an approach which targets children with reading difficulties and provides early intervention to improve reading outcomes in the future. This article will summarise the features of the Reading Recovery program and the theory underpinning the program. Many research studies and reviews have been completed on the efficacy of the program, and this research will be outlined and discussed here. Special focus will be placed on the outcomes of the Reading Recovery program in improving the reading ability of children with reading difficulties. The long-term effects and sustainability of the gains made after exiting the program will also be discussed in terms of the cost effectiveness of the

intervention in reducing the need for further special education support after children have completed the Reading Recovery program.

### What is the Reading Recovery program?

Dame Marie Clay developed the RR program in the 1970s in New Zealand. The program is aimed at children who are identified as being 'at-risk' of reading failure after they have completed one year of schooling. A trained RR teacher works with the child on a one-to-one basis, for 30 minutes per day over a period of 12-20 weeks. The children who are identified for the program are the lowest 20% in a class, as judged by the Observational Survey of Early Literacy Achievement (Clay, 1993), developed by Clay as the means for measuring achievement. There are six components of the assessment: a running record of text reading, letter identification, dictation, concepts about print, sight words, and writing vocabulary (Clay, 1993).

During the RR session the child engages in a number of set activities aimed at developing their reading skills. The activities are related to a text which is selected based on the child's reading ability. The activities are: repeated reading of a previously introduced text, identifying letters and words, writing a story, hearing and writing sounds in words, cutting up and reassembling the story in order to read it, introducing a new book, and reading the new text (Clay, 1993). Children are 'successfully discontinued' from the program after the RR teacher determines that the student has made gains and that their reading is comparable with the average reader in a child's class and that they can read and write several sentences (Clay, 1993).



*Clay believes that meaning is the most important factor in learning to read and that children can self-correct by checking if the sentence makes sense... This assumes that beginning readers have the past experiences of print and analysis skills to achieve reading success.*

Smith and Elley (cited by Chapman & Tunmer, 2011, p.22) are leading supporters of the whole language approach in New Zealand. They claim that “children learn to read themselves, direct teaching plays only a minor role.” While RR itself may not explicitly make this claim, the whole language approach is consistent with the teaching strategies used in the RR program. RR aims to help students to develop a ‘self-extending’ system of reading strategies that uses a multiple-cues approach. Chapman and Tunmer discuss the multiple cues as including syntactic, semantic, visual and graphemic sources of information. These cues are purportedly used by the student to detect their own reading errors while reading and self-correct them. Clay (1993) believes that meaning is the most important factor in learning to read and that children can self-correct by checking if the sentence makes sense. She believes that a child can “check language predictions by looking at some letters, can hear sounds he speaks and check whether expected letters are true.” (Clay, 1993, p. 41)

This cueing system is regarded as the basis of word recognition as well as self-checking. Clay (1998) refers to this approach in the RR program as she emphasises the importance of higher order skills, rather than teaching bottom-up word identification cues. “Beginning readers should use their knowledge of how the world works, meaning of text, sentence structure, order of ideas, words or letters, size of letters, special features of sound, shape, layout, knowledge of past literary experiences...before using left to right sounding out.” (Clay, 1998, p. 9). This assumes that beginning readers have the past experiences of print and analysis skills to achieve reading success. Clay goes further and warns that “undue attention to the detail of letters...can block the child’s ability to use their own language knowledge and the meaning of text, as part of his information base for decision making.” (Clay, 2005, p. 25).

### **Reading Recovery in the context of recent reviews of literacy instruction**

Recent national inquiries into reading have all discussed the importance of providing systematic phonics instruction in the early years of learning to read. These inquiries include the following: in the United States, the National Reading Panel, (National Institute of Child Health and Human Development, 2000); in Australia, the National Inquiry into the Teaching of Literacy (NITL, Department of Education Science and Training, 2005); and in England, the Independent Review of the Teaching of Early Reading (Rose, 2006). The NITL outlined the issue with reading interventions that do not include phonics training. The report noted that the Inquiry found strong evidence that a whole-language approach to the teaching of reading on its own is not in the best interests of children, particularly those experiencing reading difficulties. Moreover, where there is unsystematic or no phonics instruction, children’s literacy progress is significantly impeded, inhibiting their initial and subsequent growth in reading accuracy, fluency, writing, spelling and comprehension (Rowe, 2005, p.12).

In order for RR teachers to embrace current research and recommendations, the RR program would need to break away from the predominantly ‘whole language’, meaning-centred approach and apply direct instruction in phonics training. While progressive teachers may be keen to incorporate explicit phonics instruction into the RR program, this may be difficult because of the measures put in place to keep RR in its entirety. Clay has trademarked the name, therefore changes can not be made unless approved by the RR Council. (RR Council of North America, as cited in Reynolds & Wheldall, 2007).

### **Reading Recovery and the Response to Intervention Model**

Another issue to consider when evaluating RR is its relationship to current developments in the implementation of the three-tiered Response to Intervention model as a way of addressing children’s

*In order for RR teachers to embrace current research and recommendations, the RR program would need to break away from the predominantly ‘whole language’, meaning-centred approach and apply direct instruction in phonics training.*

learning difficulties. In Tier 1 of the RtI model outlined by Fuchs and Fuchs (2006), children are all provided with exemplary reading instruction in mainstream schooling. Those who are not responding well are offered Tier 2 intervention, which provides somewhat more focused instruction, typically in small groups. Only those who do not respond in Tier 2 are considered for specialised Tier 3 intervention. Based on the discussion of the Response to Intervention model, RR follows the Tier 2 intervention model, since it is implemented after reading instruction has been given in the first year.

Reynolds, Wheldall and Madelaine (2009) have questioned RR’s place in the RtI schema. They argue that its cost and one-to-one nature are consistent with a Tier 3 program but point out that RR does not match a Tier 3 model because it provides the level of support to a broader range of students: the 10-20% of the lowest achieving in a year group, rather than the 1-5 % who continue to struggle after effective Tier 1 and Tier 2 interventions have been implemented.

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## Recent reviews of the research into the efficacy of Reading Recovery

What Works Clearinghouse (WWC, 2013 and WWC, 2014) has reviewed the research studies on the effectiveness of RR. The WWC 2013 review and concluded on the basis of studies included in its analysis that “Reading Recovery® was found to have positive effects on general reading achievement and potentially positive effects on alphabets, reading fluency, and comprehension for beginning readers.” (WWC, 2013, p. 1). The 2014 review similarly reported “statistically significant positive impacts of Reading Recovery® in the general reading achievement and reading comprehension domains.” (WWC, 2014, p. 2). Neither of these reviews included studies that considered long-term maintenance of the gains, and neither of the reviews included studies that analysed the effectiveness of RR intervention for students with different levels of entry skills.

In contrast, the Progress in International Reading Literacy Study (PIRLS), which releases a report on the literacy achievements of children from countries throughout the world every five years, has recently reported that there is an increasingly large discrepancy between the high and low literacy achievements in New Zealand (Tunmer et al., 2013). This trend is a continuation of the results from the previous 2006 and 2001 PIRLS results. It is evident that in the last 10-year period - a period in which RR has been consistently implemented in New Zealand schools - the RR intervention has not translated into improvements in the literacy levels nationally.

One issue which has often made it difficult to measure the long term effectiveness and sustainability of gains of RR is the lack of standardized assessment data for comparison. The pre-entry and post-entry measures on the Observational Survey of Early Literacy Achievement (Clay, 1998) do not compare to the national benchmarks or standardised tests for reading. Therefore it is hard to ascertain that a child who is

discontinued has actually reached an average level when measured against national benchmarks. The lack of standardised testing and comparison from control groups in many studies completed on RR has made it difficult to confirm or refute the long-term effectiveness of the program.

Jesson and Limbrick (2014) aimed to use standardised tests to measure the gains of exited RR students in comparisons to their peers in order to judge whether they were able to maintain their initial gains after being discontinued from the RR program. The data was collected on students in New Zealand schools in Year 4, 5, 6. When the results were compared within schools and against national standards, they found that, “on average, Reading Recovery students achieved below their peers in every year level with scores significantly lower than corresponding peer groups: a difference of between 1 and 2 stanines below the averages in their schools.” (Jesson & Limbrick, 2014, p. 9).

The authors conclude that the results suggest that a majority (60%) continued to achieve reading levels at the expected level, however the overall average was one standard deviation below the national norms for reading. Jesson and Limbrick (2014) also found average writing results to be well below the national norms. What was of concern is that 40% of students performed well below the national norms for reading and writing. This raises concerns that the gains made were not sustained after the completion of the program.

For a child with learning difficulties or a learning disability, RR may not deliver the long-term effectiveness that it sets out to achieve. Clay (2005) argues that the program is for intensive early intervention for long-term literacy success. However, the recent study by Jesson and Limbrick (2014) indicates that the long-term literacy success is not sustained for a portion of students. The bottom 10-20% who are targeted as being at risk may go on to continue to display literacy failure. With any intervention, the aim is to target the area of deficit. If

the child with reading difficulties is not achieving long-term success with this program then the intervention can not be seen as a suitable intervention for these children.

## Attitudes and concerns of Reading Recovery teachers

A qualitative investigation by Serry, Rose & Liamputtong (2014), investigated the beliefs of the RR teachers about their ability to cater for different learning needs. Most practising RR teachers initially reported very positive attitudes towards the program, but several RR teachers also indicated that they did not have the skills to identify children with learning disabilities. The teachers noted that many of these students with apparent learning disabilities did not succeed in the program and required further support. Serry et al. noted that “Reading Recovery teachers were notably less confident about the potential for successful discontinuation for children perceived as having a range of clinical conditions including dyslexia, a learning disability or being of less than average intellect. Moreover, the prescriptive nature of Reading Recovery was judged as a limitation for such children by three participants.” (p. 67).

## Summary and Conclusions

It is unfortunate that adherents of the RR approach have been unwilling or unable to respond to recent

*The teachers noted that many of these students with apparent learning disabilities did not succeed in the program and required further support.*

research and recommendations to include phonics training as an effective intervention to support reading (Rose 2006, NRP 2000, NITL 2005). The RR teaching approach remains firmly grounded in a paradigm where meaning-making is of prime importance, and attention to systematic phonics in its own right is seen as less appropriate than attention to phonics and only occurs when teaching opportunities happen to crop up during the reading and composing of meaningful texts. The one-to-one instruction model used with RR may provide a supportive environment for many young readers, but the effectiveness and sustainability of gains has been questioned. For example, Reynolds and Wheldall (2007) reviewed the research on RR and reported that it “has not demonstrated that it works for the students who are most at-risk for failing to learn to read” (p. 213). Chapman et al., 2001 have claimed that gains have diminished a year after completion. With the cost involved in training teachers and implementing the program over a 20 year period in some countries, the long term gains would need to be sustained in order to justify continued funding of the program.

The major concern that teachers face when implementing a program for children with reading difficulties is ensuring that the intervention that is chosen will support literacy success and prevent further literacy failure. RR teachers themselves question whether children with a specific reading difficulty, learning disability or intellectual disability can succeed with the program (Serry et al., 2014).

RR does not appear to reliably prevent further literacy failure or address the core deficit that many children with reading difficulties have with phonological skills (Chapman et al., 2001). Although the program makes strong claims about being able to prevent further literacy failure through early intervention (Clay, 1993), the reality is less promising. Based on the research completed on RR to date, it appears that some students make gains and catch up with their peers; however Reading Recovery cannot be seen

as an intervention model that can support the needs of the majority of students with learning difficulties or sustain the gains it promises.

## References

- Al Otaiba, S., McDonald Connor, C., Foorman, B., Schatschneider, C., Greulich, L., & Folsom Sidler, J. (2009). Identifying and intervening with beginning readers who are at-risk for dyslexia: Advances in individualized classroom instruction. *Perspectives on Language and Literacy*, 35(4), 13-19. <http://www.onlinedigeditions.com/publication/?i=48617&tp=13>
- Chapman, J. W., & Tunmer, W. E., (2011). Reading Recovery: Does it work? *Perspectives on Language and Literacy*, 37(4), 21-24. <http://www.onlinedigeditions.com/publication/?i=84890&tp=3>
- Chapman, J. W., Tunmer, W. E., & Prochnow, J. E. (2001). Does success in the Reading Recovery program depend on developing proficiency in phonological-processing skills? A longitudinal study in a whole language instructional context. *Scientific Studies of Reading*, 5(2), 141-176. doi: 10.1207/S1532799Xssr0502\_2
- Clay, M. M. (1987). Implementing Reading Recovery: Systemic adaptations to an educational innovation. *New Zealand Journal of Educational Studies*, 22(1), 35-58.
- Clay, M. M. (1993). *Reading Recovery: A guidebook for teachers in training*. Auckland, New Zealand: Heinemann Education.
- Clay, M. M. (1998). *An observation survey of early literacy achievement*. Auckland, New Zealand: Heinemann.
- Clay, M. M. (2005). *Literacy lessons designed for individuals. Part One: Why? When? And How?* Auckland, New Zealand: Heinemann.
- Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it? *Reading Research Quarterly*, 41(1), 93-99. doi:10.1598/RRQ.41.1.4
- Jesson, R., & Limbrick, L. (2014). Can gains from early literacy interventions be sustained? The case of Reading Recovery. *Journal of Research in Reading*, 37(1), 102-117. doi: 10.1111/1467-9817.12017
- National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Retrieved from <http://www.nichd.nih.gov/publications/pubs/nrp/Documents/report.pdf>
- Rayner, K., Foorman, B., Perfetti, C. A., Pesetsky, D., & Seidenberg, M. S. (2002). How should reading be taught? *Scientific American*, 286(3), 84-91. doi:10.1038/scientificamerican0302-84
- Reynolds, M., Wheldall, K. (2007). ‘Reading recovery 20 years down the track: Looking forward, looking back’. *International Journal of Disability, Development and Education*, 54(2), 199 - 223. doi: 10.1080/10349120701330503
- Reynolds, M., Wheldall, K., & Madelaine, A. (2009). ‘The Devil is in the detail regarding the efficacy of Reading Recovery: A rejoinder to Schwartz, Hobsbaum, Briggs, and Scull’. *International Journal of Disability, Development and Education*, 56(1), 17-35. doi:10.1080/10349120802681580
- Rose, J. (2006). *Independent review of the teaching of early reading: Final report*. Retrieved from <http://webarchive.nationalarchives.gov.uk/20100526143644/http://standards.dcsf.gov.uk/phonics/report.pdf>

*Although the program makes strong claims about being able to prevent further literacy failure through early intervention (Clay, 1993), the reality is less promising.*

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- Rowe, K. (2005). *National inquiry into the teaching of literacy: teaching reading*. Retrieved from [http://research.acer.edu.au/cgi/viewcontent.cgi?filename=0&article=1004&context=tll\\_misc&type=additional](http://research.acer.edu.au/cgi/viewcontent.cgi?filename=0&article=1004&context=tll_misc&type=additional)
- Serry, T., Rose, M., & Liamputtong, P. (2014). Reading Recovery teachers discuss Reading Recovery: A qualitative investigation. *Australian Journal of Learning Difficulties*, 19(1), 61-73. doi: 10.1080/19404158.2014.909862
- Tunmer, J. W., Chapman, J. W., Greaney, K. T., Prochnow, J. E., & Arrow, A. W. (2013). Why the New Zealand National Literacy Strategy has failed and what can be done about it: Evidence from the progress in international reading literacy study (PIRLS) 2011 and Reading Recovery monitoring reports. *Australian Journal of Learning Difficulties*, 18(2), 139-180, doi: 10.1080/19404158.2013.842134
- U.S. Department of Education, Institute of Education Sciences. (2013). *Reading Recovery*. Retrieved from [http://ies.ed.gov/ncee/wwc/pdf/intervention\\_reports/wwc\\_readrecovery\\_071613.pdf](http://ies.ed.gov/ncee/wwc/pdf/intervention_reports/wwc_readrecovery_071613.pdf)
- U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2014, October). *WWC review of the report: Evaluation of the i3 scale-up of Reading Recovery year one report, 2011-12*. Retrieved from <http://whatworks.ed.gov>

## How children learn to read

This statement summarizes the basic facts about how children learn to read, and how best to teach them, as supported by current theory and scientific evidence on the processes underlying the acquisition of reading skills. It was prepared by Robert Sweet, President of the US National Right to Read Foundation, based on the article by Molly de Lemos on *How children learn to read: A position statement*, published in the LDA Bulletin, Volume 45, No. 2, September 2013.

1. The purpose of reading is to gain meaning from written text.
2. Reading is not a natural process, like learning to speak, but rather a skill that needs to be taught.
3. A competent reader should be able to read and comprehend what they can talk about and understand.
4. The goal is to develop independent reading ability both for pleasure and for learning by the end of Year One.
5. English is an alphabetic language. The ability to convert written text to the spoken word is dependent upon understanding that written letters represent speech sounds.
6. Beginning readers have an oral/spoken vocabulary of ten thousand words or more. Comprehension of the written word depends on the ability to link the written word to the spoken word in their oral vocabulary.
7. Acquiring knowledge of the association between the letters of the alphabet and the sounds they represent is essential for ALL children.
8. Scientific evidence confirms that the most effective approach to teaching reading is direct, systematic instruction in phonemic awareness, synthetic phonics, vocabulary development, fluency, and comprehension.
9. Children should first be taught the 26 letters of the English alphabet, the 44 sounds those letters represent, and the multiple ways to spell them.
10. Foundational reading skills, including the letter/sound correspondences and decoding using decodable texts, should be mastered by the end of Year One for most children.
11. These reading skills should be followed by the use of increasingly more complex texts to add vocabulary, increase fluency, and improve comprehension skills.
12. Even children who have difficulty learning to read respond to this approach to reading instruction, and almost all of them will become proficient readers.
13. Teaching children to guess at words that they do not immediately recognise is never acceptable.
14. Children who need additional instruction in reading should be given an appropriate assessment, and the skills that are lacking should be taught.

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# Phonemic awareness: Yea, nay?

**Kerry Hempenstall**

Dr Kerry Hempenstall (B.Sc., Dip. Ed., Dip.Soc.Studies, Dip.Ed.Psych., Ph.D.) is a practitioner and researcher in the areas of beginning reading instruction, reading difficulties, and phonemic awareness. He spent more than twenty years as a teacher, social worker, and Guidance Officer, then lectured in psychology and consulted to the RMIT Psychology Clinic, providing clinical training in the assessment and remediation of children's educational problems. He was the recipient of LDA's Mona Tobias award in 2006 in recognition of his services to people with learning difficulties. He is now partly retired, but continues to publish, and remains active on discussion lists. Kerry has long been committed to evidence-based practice in education, and his work has been recognized by the National Institute for Direct Instruction (NIFDI), who in 2012 invited him to produce a regular blog for them. This article is based on an extract from a post to his NIFDI blog, which can be found at <http://nifdi.org/news/hempenstall-blog>.

**T**he phonemic awareness concept has had a significant influence on understanding reading and its acquisition. Students with it tend to become better readers than those without it. This feature has led to interest in teaching it prior to reading instruction. However, this focus raises several issues about phonemic awareness that are as yet not fully resolved. Is phonemic awareness causal to reading acquisition? Consequential? Or is there a mediating variable between it and reading? Is the confusion due to differences in the chosen assessment methods? Can and should it be taught independent of graphemes? If it is to be taught, which activities are important? Rhyming and alliteration? Onsets and rimes? Elision? Blending and segmenting? All of the above?

## So, what is phonemic awareness?

Various terms have been employed to describe phonemic awareness,

such as phonological awareness, acoustic awareness, phonetic awareness, auditory analysis, sound categorisation, phonemic segmentation, phonological sensitivity, and phonemic analysis. Most authors, such as Goswami and Bryant (1990), reserve the term phonemic awareness to imply awareness of individual phonemes, whereas phonological awareness is considered a more global term that includes the earlier developing aspects, such as rhyme and syllable awareness (Melby-Lervåg, Lyster, & Hulme, 2012).

There has also been much discussion about how best to define phonemic awareness. Ball and Blachman (1991) refer to the ability to recognise that a spoken word consists of a sequence of individual sounds. Stanovich (1986) initially defined it as the "conscious access to the phonemic level of the speech stream and some ability to cognitively manipulate representations at this level" (p. 362). Later (1992, 1993), he suggested that the terms "conscious" and "awareness" themselves have no acceptable definitions, and he subsequently recommended phonological sensitivity as a generic term to encompass a continuum from shallow to deep sensitivity. This term acknowledges the wide range of tasks used to assess levels of sensitivity. As these alternatives have not gained currency, phonemic awareness will continue to be used here as implying both the knowledge of, and the capacity to manipulate, phonemes – acknowledging that the definition continues to have limitations. It is argued that both synthesis (also known as blending or telescoping) and analysis (also known as phoneme segmentation) are important elements of phonemic awareness – with synthesis usually preceding segmentation (Ouellette & Haley, 2013).

What is clear is that phonemic awareness concerns the structure of spoken words rather than their meaning. To understand the construction of our written



*The data are best explained by considering the relationship between phonemic awareness and reading development as a reciprocal one.*

code, readers need to be able to reflect upon the spelling-to-sound correspondences. To understand that the written word is composed of graphemes that correspond to phonemes (the alphabetic principle), beginning readers must first have some understanding that spoken words are composed of sounds (phonemic awareness), rather than conceiving of each word as a single indivisible sound stream. This awareness appears not to be a discrete state, but rather a sequence of development ranging from simple

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to complex, or – as Stanovich (1992, 1993b) would prefer – from shallow to deep.

A problem arising from differing definitions is that the tasks used to assess phonological or phonemic awareness also differ significantly. This problem of no common metric makes it difficult to compare study outcomes and obtain a high degree of consensus concerning causality.

### Does development follow a sequence?

Although some authors suggest variations in the sequence (Ehri et al., 2001), the levels of phonological development from shallow to deep phonemic awareness have been delineated as follows:

Recognition that sentences are made up of words

Recognition that words can rhyme - then production thereof

Recognition that words can be broken down into syllables - then production thereof

Recognition that words can be broken down into onsets and rimes - then production thereof

Recognition that words can begin with the same sound - then production of such words

Recognition that words can end with the same sound - then production of such words

Recognition that words can have the same medial sound(s) - then production of such words

Recognition that words can be broken down into individual phonemes - then production thereof

Recognition that sounds can be deleted from words to make new words - then production thereof

Ability to blend sounds to make words

Ability to segment words into constituent sounds

It has been argued that these skills are hierarchical, and it's true that the correlations with reading increase as the complexity of the tasks increases – from low level skills such as syllable recognition to high level skills such as blending sounds (Manolitsis & Tafa, 2011). It may also be that the sequence is at least partly dependent on the experiences of individual students. The more focussed and

structured the experience, the more likely it is that a student will have progressed to higher levels compared with same-age peers (Samuelsson et al., 2008). Additionally, there may be genetic effects that influence the ease with which individual students make phonological progress (Soden-Hensler, Taylor, & Schatschneider, 2012).

Research has not yet provided a

phoneme has particular significance for the acquisition of reading because of its role in the development of the alphabetic principle – that the written word is simply a means of codifying the sound properties of the spoken word. In order to decode the written word, the child needs to appreciate the logic of the writing system and, as a prerequisite, the



clear picture of the developmental progression, partly because of the dearth of longitudinal studies and the lack of adequate assessment tools that can be administered to young children (Braze, McRoberts, & McDonough, 2011). Some even argue that the mooted progression may not be the typical experience:

Therefore, to conclude, the outcome of our study suggests that it is no longer helpful to characterise phonological development in terms of a fixed sequence because this type of generalisation obscures important variation that occurs in response to the demands of the assessment task, the type of instruction taking place in the classroom and the nature of the spoken and written languages under investigation (Duncan et al., 2013, p.417).

### Phoneme Awareness

Awareness at the level of the

logic of oral word production.

There are two requirements of beginning reading for which phonemic awareness becomes immediately relevant: phonemic analysis (segmentation) and phonemic synthesis (blending). For most children, the ability to produce the finer discrimination of phonemes begins in about Year One of their schooling (Ball, 1993). Individual phonemes are more difficult to specify because their acoustic values vary with the phonemes that precede and follow them in a word (a phenomenon called co-articulation), whereas, syllables have relatively constant values in a word and hence should be more readily recognised. The fact that consonants are “folded” into vowels can be understood by noting the different tongue positions for the beginning /d/ sound when it is followed by /oo/ and by /i/.

In most children the ability to synthesise (blend) sounds into

words occurs earlier than analytic (segmentation) skills (Bryen & Gerber, 1987; Caravolas & Bruck, 1993; Solomons, 1992; Torgesen et al., 1992; Yopp, 1992). Thus, it is easier for children to respond with the word cat when presented with the sounds c - at or c-a-t, than it is to supply c-a-t when asked to tell what sounds they hear in cat.

Tasks used to assess beginning (or shallow) phonemic awareness tend to emphasise sensitivity to rhyme and alliteration; for example, finding a word that begins or ends with the same sound as the stimulus word. A more complex task would involve the manipulation, or separation of sounds in a word, for example, What is the first sound you hear in cat? What word is left if you remove the /t/ from stand? (Torgesen et al., 1994). Other tasks used for assessment may include counting the sounds in words, adding, deleting or manipulating sounds, and categorising sounds at the beginning, middle, or end of words. The deletion task, while it has good reliability (Lervåg et al., 2009), also has a strong working memory element.

There are now numerous normed and unnormed tests available. Some are available from publishers, such as the Comprehensive Test of Phonological Processing (CTOPP; Wagner, Torgesen, & Rashotte, 1999) whilst some are free from the Net, such as Dynamic Indicators of Basic Early Literacy Skills (DIBELS; University of Oregon, 2002a) or the Abecedarian Reading Assessment (Wren & Watts, 2002). There is also the Phonological Awareness Literacy Screening (PALS) test online. PALS is the state-provided screening tool for Virginia's Early Intervention Reading Initiative (EIRI). A useful resource in making decisions about which test to employ is an extensive and thorough review by Kame'enui (2002).

As indicated above, deeper levels of awareness (i.e., at the phoneme level) tend to develop during first grade upon exposure to reading instruction. Some have argued then that phonemic awareness may be a consequence of learning to read rather than a causal factor in its development (Morais et al., 1987; Morais, 1991). There is increasing

consensus that the data are best explained by considering the relationship between phonemic awareness and reading development as a reciprocal one (Duncan et al., 2013; Stanovich, 1992).

### **Might phonemic awareness be a consequence of reading development?**

If that were the case, is there a purpose to attempting to teach it prior to reading instruction? If it were strictly true, then it should not be possible to teach phoneme awareness without recourse to letters. Yet there are numerous studies showing that it can be taught as a purely oral skill. There is some confusion here, as some studies use the term phonological awareness as synonymous with phoneme awareness, while others confine the meaning of phoneme awareness to the higher order processes such as blending and segmenting. Additionally, many different tools have been employed to measure progress; some formal normed tests, and others experimenter designed curriculum-based measures. So perhaps the best position for now is to assume the reciprocity assertion (Duncan et al., 2013; Stanovich, 1992).

A threshold phonemic awareness level may be beneficial (though not sufficient) for beginning reading development, but as reading develops, increasingly the student becomes more sensitive and better able to manipulate sounds at the phoneme level. Additionally, as orthographic skills develop, some phonemic awareness tasks may be completed without recourse to phonology at all (Castles & Coltheart, 2004; Duncan et al., 2013).

Such findings favour the idea of reciprocal causation whereby phoneme awareness, letter knowledge, and reading skills interact in the process of learning to read and phoneme awareness develops rapidly in readers who primarily encounter consistent grapheme-phoneme relationships (Nag & Snowling, 2012, p.405).

The acquisition of phonemic awareness is not guaranteed simply through maturation; in fact, about a third of students require varying

degrees of assistance to promote its development (Adams, 1990). If they don't receive this help, many will employ less effective strategies, such as attempting to remember every word as a unique picture, or by

*As reading develops, increasingly the student becomes more sensitive and better able to manipulate sounds at the phoneme level.*

various guessing strategies.

### **So, if you consider that phoneme awareness needs to be taught separately what do you teach?**

Do you purchase one of the many available texts such as the classroom curriculum by Adams, Foorman, Lundberg, and Beeler (1998) and work your way through the oral activities, or do you contrive your own? That depends upon your own phonological ability along with a capacity to create effective and efficient instruction, and the tools to continuously assess the results of your intervention. Such activity should not be inordinately long, as literacy time is too valuable to spend on marginal issues (so, maybe 20 hours).

There are also many resources provided by education departments and other organisations online, such as at <http://www.phonologicalawareness.org/> <http://pbskids.org/games/index.html> <http://www.readingresource.net/>, <http://www.starfall.com>. [http://www.doe.virginia.gov/instruction/virginia\\_tiered\\_system\\_supports](http://www.doe.virginia.gov/instruction/virginia_tiered_system_supports)

There are also various free or

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cheap apps that would suit either home-based or school-based phoneme awareness development, such as at <http://www.loveandreilly.com.au>, <http://pbskids.org/apps/>, <https://itunes.apple.com/au/app/profs-phonics-1/id511712292?mt=8> <https://sites.google.com/site/faveapps/reading/phonemic-awareness>

### Should you include letters (graphemes) in your otherwise oral phonemic awareness curriculum?

Stimulation of phonological awareness should never be considered an isolated instructional end in itself. It will be most useful as part of the reading curriculum if it is blended seamlessly with instruction and experiences using letter-sound correspondences to read and spell words (Torgesen & Mathes, 1998, p. 9).

A question often asked about phoneme awareness training that precedes reading instruction is the degree to which the phonological skills will transfer to the reading task. Will students have forgotten such oral skills by the time reading instruction commences? Will they remember them, but not perceive the benefits in making use of them? Will they remember them, and appreciate the potential benefits in making use of them, but can't see how to incorporate the oral skills into the decoding task? Presumably, one role for a beginning reading teacher is to make salient to the reading task

*Phonemic awareness has no purpose other than to assist decoding, and hence any attention to it should be tied closely to decoding.*

those phoneme awareness skills previously developed. If this is to be part of the teacher's curriculum, then a closer knit between the phoneme awareness training and the beginning reading instruction is advisable. Certainly, if the teacher's initial instruction is meaning-dominated or has an initial whole word emphasis, then students are unlikely to notice that phonological skills can be helpful.

Overall, the data suggest that there is little value in training pre-schoolers in either letter forms or sounds in isolation in advance of providing instruction on the links between the two (Castles, Coltheart, Wilson, Valpied, & Wedgwood, 2009, p.68).

So, perhaps one should bypass the oral phonemic awareness activities, and move directly to the phonic processes of segmenting and blending (including letters not solely sounds) because they are activities more directly salient to reading. Additionally, it has been argued that letter-sound knowledge enhances phonemic awareness skills (Carroll, 2004), so a link between letter-sound associations and phoneme awareness may have several benefits.

Engelmann's (1999) take is that phonemic awareness has no purpose other than to assist decoding, and hence any attention to it should be tied closely to decoding. Hence, he recommends treating the proximal rather than distal proposed causes:

The demonstration that phonological manipulations are precise components of a beginning word reading operation can be seen by constructing a task that is as similar as possible to a beginning decoding task but that does not refer to any symbols. It is a verbal skeleton of the task.

This perspective really involves a return to the initial teaching of phonics, which was the norm for code-oriented teachers prior to the phonemic awareness revolution. Prior to the introduction of pre-reading phonemic awareness, blending and segmenting were a normal part of phonics instruction (although without the name phonemic awareness).

At the current state of knowledge, it is adequate to conclude that the systematic instruction of letter-sound correspondences and decoding strategies, and the application of these skills in reading and writing activities, is the most effective method for improving literacy skills of children and adolescents with reading disabilities....The present results demonstrate that when phonemic awareness interventions are provided to school-aged children and adolescents with reading difficulties, they do not have a significant effect on a child's reading or spelling performance. This indicates that phonemic awareness and reading fluency trainings alone are not sufficient to achieve substantial improvements. However, the combination of these two treatment approaches, represented by phonics instruction, has the potential to increase the reading and spelling performance of children and adolescents with reading disabilities (Galuschka, Krick, & Schulte-Körn, 2014, p.9).

### So, where does that leave the significance of phonological processing in learning to read?

Here are some differing perspectives:

A strong argument has been made for a causal relationship between reading and phoneme awareness. (Melby-Lervåg, 2012, p. 101).

During the past four decades many explanations of reading disorders have been put forward ... visual processing, auditory discrimination, cross-modal transfer, eye movements, serial memory, attention, association learning, or rule learning. Most of these were eventually rejected due to a lack of supportive evidence ... In contrast, the phonological deficit hypothesis has clearly stood the test of time. (Tunmer, 2011, p. x).

The results revealed no support for the theory that a preceding phonological awareness deficit caused the reading deficit in the risk children, since only a very small proportion of the risk children exhibited

phonological awareness problems in kindergarten and only part of these children developed a reading deficit. (Blomert & Willems, 2010, p.312).

Our results suggest that phonological awareness as measured by widely used tests is not as important for early literacy learning as many researchers and educators believe (e.g., Adams, 1990; Ehri et al., 2001; Lundberg, 1991). ... Current phonological awareness tests, it appears, demand more phonological skills than certain aspects of literacy learning do. ... We think that children need some phonological skills to learn about the sounds that letters represent and to learn how to combine letters to read and spell words. Like several other researchers (Castles & Coltheart, 2004; Snowling & Hulme, 1994), though, we conclude that phonological awareness as currently assessed is not a good measure of the phonological skills that are needed to learn to learn about letters and reading (Treiman, Pennington, Shriberg, & Boada, 2008, p.1336).

There is now a large, complex, and sometimes seemingly contradictory literature on the associations between different phonological skills and learning to read. This meta-analytic review substantially clarifies the patterns in this literature. It appears that phonemic skills measured in children at the earliest stages of learning to read are closely related to the early growth in children's word reading skills. We have argued that converging evidence from longitudinal and training studies suggests that this relationship may be a causal one, such that adequate phonemic skills may be one prerequisite for learning to read effectively. These effects seem to be essentially universal across the different alphabetic languages that have been studied. In contrast, the two other skills considered here (rime awareness and verbal short-term memory) are less closely correlated with individual differences in learning

to read, and their relationships with reading seem to be explicable in terms of shared variance with phonemic skills. These findings have important applied implications (Melby-Lervåg, Lyster, & Hulme, 2012, p.21).

Individual differences in phonological awareness are closely related, concurrently and longitudinally, to variations in reading achievement (e.g., Lonigan, Burgess, & Anthony, 2000; Muter, Hulme, Snowling, & Stevenson, 2004; Wagner et al., 1997). Evidence supporting a causal role of phonological awareness in reading development comes from studies showing that training phonological awareness improves reading (e.g., Lundberg, Frost, & Petersen, 1988; Schneider, Küspert, Roth, Visé, & Marx, 1997; but see also Castles & Coltheart, 2004; Hulme, Snowling, Caravolas, & Carroll, 2005). (Duff & Hulme, 2012, p. 505).

The present study demonstrated that the training provided by phonics instruction, rather than learning to read per se, appeared sufficient to trigger excellent explicit sensitivity to phonemes across languages by the end of the first school year. (Duncan et al., 2013, p.415).

Given that the story is incomplete, and given all of the independent evidence about phonological factors in literacy growth, they will, and ought to, continue to be an important focus in the broad research agenda to understand how all children learn to read and why some find it a more challenging assignment than others. (Byrne, 2011, p.191).

Finally, it is clear from the research that purely code-based interventions, as important as they are, do not constitute a complete reading program. The Big Five variables highlighted in the report of the National Reading Panel (2000) include fluency, vocabulary, and comprehension instruction. Instruction in these variables produces symbiotic effects – each skill enhancing the other. For

*The acquisition of phonemic awareness is not guaranteed simply through maturation; in fact, about a third of students require varying degrees of assistance to promote its development. If they don't receive this help, many will employ less effective strategies, such as attempting to remember every word as a unique picture, or by various guessing strategies.*

example, vocabulary instruction and comprehension instruction have been found to increase phonemic awareness beyond that achieved solely by phonemic awareness training (Al Otaiba et al., 2008; Ouellette & Haley, 2013).

### **Confused? So, what's the conclusion about phonology?**

Encourage families to include word structure activities in their young children's games, such as nursery rhymes, I Spy, Pig Latin, and creating words with magnetic fridge letters. They can also encourage aspects of print awareness by showing how print differs from pictures (Robins, Treiman, Rosales, & Otake, 2012). Whether these activities will have a measurable priming effect for

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children when they begin to address the literacy challenge is not yet solidly research-grounded. However, in the absence of a clear consensus, and accepting that the activities are not harmful (and may be fun), it is a worthwhile enterprise.

In school, assess all students on arrival using a combination of phonemic awareness and letter-sounds/name fluency measures (and possibly include a naming speed task). Assume that those students who struggle with these tasks will require intensive intervention from the beginning. Adopt a response-to-intervention model to ensure these students are not left to languish. Plan for extended oversight and intervention for this cohort. While the debate on a causal role for phonemic awareness continues, assume there is such a relationship. Include phonemic

awareness activities, initially on blending and segmenting - introducing letters at this time or before to assist integration of the skills. Explicitly tie phonemic awareness activities into your initial phonics program. For any students who struggle with blending and segmenting, first increase practice opportunities by increasing allocated time. If this is ineffective, consider introducing simpler phonological activities, such as rhyming and alliteration before returning to blending and segmenting.

Maintain a regimen of continuous evaluation. Teach all relevant skills to fluency. Encourage parental participation with regular teacher-parent contact and shared programming to increase engaged literacy time. Provide additional training in content and method to those teachers in need. Anticipate

initial teacher resistance, but develop an evidence-based culture in the school that values data. Expect that it will be a long, but worthwhile endeavour. Bear in mind, too, that phonology ain't everything. Due attention must also be paid to other important aspects of literacy, such as comprehension, reading fluency, and oral language, including vocabulary.

## References

This article is based on an abbreviated version of Dr Kerry Hempenstall's blog post of the same name, kindly used here with his permission. The original post, complete with full bibliographic details for all in-text references, can be found at the following web address.

<http://www.nifdi.org/news/hempenstall-blog/456-phonemic-awareness-yea-nay>

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# When educational promises are too good to be true

When parents and teachers are concerned about the progress of young people with learning difficulties, they often ask whether we would recommend a particular program that they have found on the internet or heard about on a television show. The following information from the **International Dyslexia Association** summarises some of the issues to be considered and provides some useful advice to parents and teachers who are unsure of the value of any of the many programs, products and services that are on offer.

**W**hen a child struggles to read, parents and educators want to do everything possible to help that child keep up with his or her peers and be successful in school. But as much as we want that to happen overnight, that is not how it usually works. It can take years of hard work, even with the best teachers and instruction. Unfortunately, some organizations or individuals may take advantage of parents when they are most vulnerable by making exaggerated claims or false guarantees based on “pseudo science.” This fact sheet provides guidance in learning to critically evaluate programs, avoid scams, and move forward toward providing instruction that will truly help the children who need it.

## Exaggerated Claims

Some organizations and individuals make exaggerated claims about their products or offerings. They may say that their students quickly learn to become better readers and thinkers. They may insist that their programs can accomplish in a few short months what more realistically can take years of hard work. They may use tactics such as parent testimonials to lure desperate parents into spending thousands of dollars on programs that do very little to help children.

Parents must learn to be sceptical of any organization or individual making claims that seem too good to be true. Such claims should raise serious questions about the credibility of those who make them. False promises often create frustration and loss of self-esteem for a child who does not make the gains predicted. Organizations touting unfounded or unrealistic success also do a disservice to professional organizations doing credible work using evidence-based strategies, albeit work that may take many months or even years.

## False Guarantees—Read the Fine Print

Parents desperate to find help for their children need to be aware of “quick fixes.” They should ask questions and request evidence to support claims of success. Some programs offer guarantees but it is extremely important to read the fine print regarding any guarantee offered by an organization or individual being considered for working with a child.

## Science or Pseudo-Science?

To trick the consumer, concepts that are complicated—such as neurology and brain function – may be oversimplified. Consumers may be lured to believe that by “curing” a “single underlying condition,” a complex pattern of difficulties will disappear.

Results of brain research, much of it sponsored by the National Institutes of Child Health and Human Development (NICHD), suggest that different parts of the brain working together are responsible for complex cognitive processes and that the communication between these brain centres is required for successful learning to occur. There is much research evidence demonstrating that when these systems are not working well together, learning will be negatively affected. There is also evidence to show which types of

instructional approaches are likely to be effective for helping people with different patterns of learning. Unfortunately, none of these instructional approaches is a “quick fix.”

*Most learning disorders arise from a highly complex genetic environmental interplay, but the unsuspecting parent can be fooled by “pseudo-scientific” jargon and miss the lack of solid, supporting documentation.*

Advertisements can be misleading too. A program can sound very scientific, even though the claims being made are not supported by evidence. Parents must become “consciously sceptical” of such claims. Actually, most learning disorders arise from a highly complex genetic environmental interplay, but the unsuspecting parent can be fooled by “pseudo-scientific” jargon and miss the lack of solid, supporting documentation.

## Questions to Ask

If you are trying to determine the effectiveness of a program or

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therapy, the following questions are a good place to start.

- Do the claimed gains in skill development transfer to gains in reading, writing, math, or study skills? Children can become very good at exercises, such as sorting, if they are given the time to practice, but does the skill actually transfer to better reading, spelling, writing, or math skills? Computer games are sometimes incorporated in the therapy or instruction and may or may not target the academic skills a student needs. Be wary of programs or products that do not seem to actually target the child's learning needs.
- Do the claimed short-term gains in specific skills translate to long-term gains? Are the gains permanent? Sometimes students work intensely on specific drills or computer learning games and make impressive gains in post-therapy testing on the specific skills they were practising. Yet these skills often diminish over time, much like children who take music lessons. Children can learn skills while they are taking lessons and practising, but if they put the instrument down for any length of time, they begin to lose these fledgling skills.
- Are there independent scientific studies showing the effectiveness of a given treatment? Before choosing a specific program for your child—especially one that makes claims that seem too good to be true—ask for studies that examine the efficacy of the program. Make sure the studies are reported in legitimate educational or scientific journals that are reviewed by other researchers for their results. There is a big difference between company research, consumer testimonials, and an independent scientific study of a specific therapy's effectiveness. It is essential that the studies are well designed whether they are conducted by the organization itself or independent researchers. No single factor determines the quality of research, but the

following questions are important to consider.

- Were there adequate controls to determine the impact of the treatment?
- Could the results be determined by factors other than the program or therapy used?
- How many students were included in the treatment or study?
- Were appropriate assessments used to track student achievement?
- Did the tests or assessments measure the skill or skills that the researchers claim the instruction improved?
- Are the results reported in language that is understandable and do they target the academic areas at the focus of the therapy or instruction?
- What kinds of student gains are documented?
- Was there adequate supervision to ensure that implementation of a program was performed with fidelity so that the impact of student achievement could be determined?
- Did the individuals providing the instruction or therapy have adequate training and skill to use the program or materials as specified by the program or product developers?
- Was there sufficient training, support, and supervision to ensure that the instruction or therapy was performed with fidelity and with appropriate intensity?

Fortunately, most organizations and individuals do not aim to take advantage of unsuspecting parents. An organization such as the International Dyslexia Association (IDA) offers support to programs that prepare professionals for helping children who are having difficulty reading. IDA has developed the

Knowledge and Practice Standards for Teachers of Reading to guide the preparation, certification, and professional development of teachers and therapists who provide educational programs for individuals in need of reading instruction. Colleges and universities that offer programs to train individuals to teach students to read may apply for accreditation through a standards review with IDA. Programs that meet these standards should be equipped to prepare professionals to effectively work with individuals who have challenges learning to read or write.

For guidance in choosing educational professionals, the following IDA Fact Sheets (<http://www.interdys.org/FactSheets.htm>) may also be useful:

- A Parent's Guide to Effective Instruction
- Evaluating Educational Professionals
- Helpful Terminology

Most of us agree that it's important to ask difficult questions when buying a car, purchasing a house, or determining a best medical treatment. Shouldn't we do the same when choosing effective instruction for teaching our children with learning challenges?

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# How dyslexia advocacy can help all struggling readers

## Tanya Forbes

Tanya Forbes is a parent, teacher, filmmaker and dyslexia advocate. She is the founder of the *Gold Coast Dyslexia Support Group* and an associate member of the *Australian Dyslexia Association (AMADA)*. Tanya is also an education campaigner with *Defy Dyslexia*, and is the creator and producer of *Outside the Square*, an educational documentary about dyslexia for teachers and schools.

My journey into dyslexia advocacy began four years ago when my six year old son was showing all of the early indicators of dyslexia. He was assessed by the Australian Dyslexia Association (ADA) and it was found he had severe dyslexia, two standard deviations below the mean, at the tail of the bell curve. Jodi Clements, president of the ADA, accompanied me when I met with school executives and learning support teachers at Robina State School to implement a learning plan for Brendan. The school really cared about the education of my son and wanted to help; however there was little or no acknowledgment of dyslexia in the Queensland education system. It was at this stage I heard the infamous sentence, "We don't like to use the 'D-word' in education".

I decided it was important to become an 'expert' in dyslexia education, firstly to provide the best early intervention for my son

*It was obvious that what works for children with dyslexia, is effective for ALL children.*

and, secondly, to advocate for all children with dyslexia. I attended the ADA Orton Gillingham course in Multisensory Structured Language (MSL) alongside Brendan's very talented and passionate teacher from Robina State School. Both Brendan's teacher and I were astounded by the progress made, not just by Brendan, but by all students. The children were 'making sense' of the written language. It was obvious that what works for children with dyslexia, is effective for ALL children. It was at that moment that I made it my mission to aim to have explicit instruction in phonemic awareness and systematic phonics using multisensory techniques in EVERY school.

The Gold Coast (GC) Dyslexia Support Group was formed in 2012 to address the lack of understanding and recognition of dyslexia in the education system. The main objectives of the Gold Coast Dyslexia Support Group were to increase awareness and lobby for change.

Some of the roles of the support group include:

- Community awareness by providing information to parents, teachers and schools.
- Lobbying politicians including local members of parliament and Education Ministers, both state and federal.
- Liaising with Education Queensland and the Queensland Curriculum and Assessment Authority for change within the Department.
- Political advocacy by initiating the national dyslexia petition.
- Parent advocacy within schools to address the needs of students with dyslexia.

Robina State School was committed to making evidence-based reading instruction a priority and to assisting struggling readers to learn to read and access the curriculum. The ADA and the GC Dyslexia Support Group



worked collaboratively to develop the ADA school accreditation. A list of school initiatives was developed based on both the National Inquiry into the Teaching of Literacy (2005) and the National Dyslexia Working Party recommendations (2010). The design was devised to work within the existing autonomy within schools. The aim was to adopt high quality literacy instruction using scientifically researched methods with a focus on early identification and early intervention.

The school initiatives include the following elements:

- Evidence-based reading methods using explicit direct instruction and multisensory techniques.
- Creating dyslexia-friendly classrooms with inclusive practices and appropriate accommodations.
- Early literacy instruction with an emphasis on phonological and phonemic awareness, and systematic phonics for decoding and encoding.
- Early identification with screening and ongoing monitoring of Prep children to identify children 'at risk' of reading difficulties.

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- Early literacy intervention for children 'at risk' in Grades 1 - 3
- Curriculum learning support and intensive response-to-intervention for students in upper primary grades that have not responded to early intervention.
- The provision of specialist dyslexia teachers for intervention and curriculum support.
- Building self esteem and developing resilience of students with dyslexia.
- Adoption of assistive technology
- The provision of adjustments for exams and assessments.

The GC Dyslexia Support Group and the Australian Dyslexia Association met with the Queensland Minister for Education with a plan, to establish Robina State School as a 'pilot' ADA accredited school. This proposal was endorsed by the Minister and supported by Education Queensland.

Robina State School became dyslexia friendly due the school's commitment to change supported by very dedicated and innovative educators. The former Principal, Mr Mike Shambrook, and the current Principal, Mr Christopher Eveans, have used their school autonomy to support and allocate funding for all initiatives and professional development.

The next step was to educate and empower other parents so they are able to advocate for their children and transform their schools.

We hosted parent information nights, professional learning seminars and movie screenings, as well as producing newsletters and fact sheets. A network was developed with educational psychologists, educational consultants and speech-language therapists to ensure parents with new dyslexia assessments receive much needed support. The objective of the fact sheets is to inform parents and to guide schools. Parents were now able to meet with schools and discuss IEPs, adjustments and assistive technology. Receptive schools sought more information and guidance from the ADA and the GC Dyslexia Support Group.

Social media networks were used to connect like-minded parents, teachers and professionals who were advocates for children with dyslexia. It was possible to connect with other dyslexia advocates around Australia, as well as around the globe.

I made contact with several members from the National Dyslexia Working Party and they guided my political advocacy. If we were going to achieve education reforms, we needed to approach from the top down as well as the bottom up. We needed a groundswell of parents to rally behind the recommendations

*I will always endorse early, early, early... early evidence-based instruction, early identification and early intervention.*



Tanya received a Community Achievement award from federal member for McPherson, the Hon. Karen Andrews MP

of the Dyslexia Working Party. The Defy Dyslexia campaign was created by a group of visionary Brisbane mothers with the aim of uniting all lobbying efforts by dyslexia advocates. Defy Dyslexia provided the umbrella to unite all dyslexia support groups around the country. The national dyslexia petition of support groups affiliated with the ADA was circulated prior to the Federal election. A change in government was the perfect time to submit the petition and try to get dyslexia back on the political agenda. It was tabled in Parliament on the 12th of December 2013 with

over 7,500 signatures. The petition followed on from the petition initiated by Angela Weeks and SPELD SA. We now have dyslexia back on the political agenda.

In June 2014, the Hon Christopher Pyne MP convened a policy round table on dyslexia in Adelaide. The round table discussed topics such as understanding dyslexia, creating dyslexia-friendly learning environments and empowering young people with dyslexia. The round table provided the opportunity to meet with leading experts in dyslexia education. The idea for Outside the Square, a dyslexia advocacy film, was conceived after

meeting leading researchers and educators at the forum. Outside the Square will provide teachers and schools with the knowledge and strategies to identify children with dyslexia, develop an understanding of their difficulties, and provide appropriate support so these children have an opportunity to succeed in education. It is an honour to have so many accomplished, knowledgeable and committed people appearing in the film. Their messages are unified and they all share the passion to improve the learning outcomes for students with dyslexia.

I have a great appreciation that my son, now almost 10, is one of the lucky ones. He was identified early, given evidence-based reading instruction and had access to early intervention. He has progressed from school reports with grades of 'Developing' and 'Needs Support' to now achieving 'Sound' with the occasional 'High Achievement' for his subjects. This is thanks to both early literacy intervention and the continued support from a very enlightened and progressive school.

We have such a brief opportunity to develop and strengthen the neural pathways in children with dyslexia. I have seen it in my own son, and it was like watching a miracle occur. The alphabet went from being a complete mystery to something he could understand and utilise. It was apparent to me that the window of opportunity for early intervention is before eight years of age, and then the window starts to close. He is living proof that supports research from Yale University and Haskins Laboratories (e.g., B. Shaywitz, et al., 2004; B. Shaywitz et al., 2007; S. Shaywitz, Morris & B. Shaywitz, 2008). From my own experiences, I will always endorse early, early, early... early evidence-based instruction, early identification and early intervention.

I am very aware that it is generally the 'middle class' students that possess a formal specific learning disability (Dyslexia) assessment. I am always conscious of the many, many other children who are struggling readers. Their problem may be due to an unidentified reading disorder; it could be due to a lack of exposure to oral or written language, or they may

be instructional casualties of a whole language approach to the teaching of reading. There are so many weaknesses in our current education system. The disservice is not just limited to our children, but also extends to our very hardworking and committed teachers. By using dyslexia as a platform, there has been an opportunity to highlight deficiencies and, hopefully, facilitate change in our education system.

## References

- Dyslexia Working Party (2010). *Helping people with dyslexia: A national action agenda*. Report to the Hon Bill Shorten, Parliamentary Secretary for Disabilities and Children's Services. [http://ww2.rch.org.au/emplibrary/cah/dyslexia\\_a\\_national\\_action\\_agenda.pdf](http://ww2.rch.org.au/emplibrary/cah/dyslexia_a_national_action_agenda.pdf)
- National Inquiry into the Teaching of Literacy. (2005). *Teaching reading: Report and recommendations*. Canberra, Australia: Australian Government, Department of Education, Science and Training.
- Shaywitz, B.A., Shaywitz, S.E., Blachman, B.A., Pugh, K.R., Fulbright, R.K., Skudlarski, P.,... & Gore, J.C. (2004). Development of left occipitotemporal systems for skilled reading in children after a phonologically - based intervention. *Biological Psychiatry*, 55, 926-933.
- Shaywitz, B.A., MD, Skudlarski, P., Holahan, J. M., Marchione, K., Constable, R., Fulbright, R., ... Shaywitz, S. E. (2007). Age-Related Changes in Reading Systems of Dyslexic Children. *Annals of Neurology*, 61(4), 363-370.
- Shaywitz, S. E., Morris, R., & Shaywitz, B. A. (2008). The Education of Dyslexic Children from Childhood to Young Adulthood. *Annual Review of Psychology*, 59, 451-475.

*By using dyslexia as a platform, there has been an opportunity to highlight deficiencies and, hopefully, facilitate change in our education system.*

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# Outside the Square Empowering Children with Dyslexia

**O**utside the Square is a documentary film series about children with dyslexia and how they might best be supported in schools. The brainchild of Tanya Forbes – primary school teacher, mother of a child with dyslexia, and founder of the Gold Coast Dyslexia Support Group – the documentary was funded by supporters and the general public. The series advocates for evidence-based practice and appropriate

accommodations for children struggling with literacy in their classrooms. It showcases schools that have already begun to implement effective, evidence-based programs. The film is enriched by the expertise of a variety of academics and researchers well known to Bulletin readers, including LDA vice president Dr Lorraine Hammond, Mona Tobias award winner Mandy Nayton, Distinguished Professor Anne Castles and Associate Professor Genevieve McArthur from Macquarie University,

and Dr Jennifer Buckingham from the Centre for Independent Studies.

Launched on Tuesday 10th March in Brisbane at a function attended by international literacy expert Dr Louisa Moats, Outside the Square is sure to provide a very valuable resource for parents, teachers and school leaders who are committed to ensuring the best possible educational experience for students with learning difficulties. More information is available at the website <http://www.outsidesquare.net/>

## Call for submissions for the 2015 AJLD Early Career Researcher Award

**S**ubmissions for the AJLD Early Career Researcher Award are invited from early career researchers. The AJLD Early Career Researcher Award is an LDA Award which is funded by Taylor and Francis, publishers of the LDA Journal. The award is designed to encourage early career researchers to submit articles based on their research findings to the *Australian Journal of Learning Difficulties*.

This Award will be by open competition, and will be based on the submission of a paper in a form appropriate for publication in the *Australian Journal of Learning Difficulties*. Those eligible to receive

this Award will be researchers who have completed their PhD within the last six years, and who are currently engaged in research which has the potential to make a significant contribution to theory or practice in the learning difficulty area. Selection of the Early Career Researcher Award will be based on recommendations from the Editors of the Journal to the LDA Awards Committee.

Researchers wishing to be considered for this Award are required to submit their paper, by email, to Emeritus Professor Kevin Wheldall, Joint Editor of the Journal, at [kevin.wheldall@pecas.com.au](mailto:kevin.wheldall@pecas.com.au), by Friday 12th June 2015. The covering

email should specify that the paper is being submitted for consideration for the AJLD Early Career Researcher Award. All papers submitted for this Award will be considered for publication in the Journal, and those not qualifying for the Award may qualify for the special commendation of 'highly commended'. Both members of LDA and non-members of LDA are eligible to be considered for this Award. The Award carries with it a prize of \$500.

If you would like further information about this Award please contact Emeritus Professor Kevin Wheldall, Editor of the Journal, at [kevin.wheldall@pecas.com.au](mailto:kevin.wheldall@pecas.com.au)

# The explicit teaching of reading for all children

Chris Eveans

Christopher Eveans is principal of Robina State School – a Prep to Year 6 school on the Gold Coast in Queensland with an enrolment of 750 students. His school improvement agenda includes leading change to embed an evidence-based approach to teaching reading, which is essential for all students and critical for students with a learning difference including dyslexia, and implementation of a pedagogical framework incorporating a whole school approach to explicit teaching.

In 2012 Robina State School became the first Australian Dyslexia Association (ADA) *Dyslexia Friendly School*. While this was a significant achievement, in reality it has been easier to achieve than a school-wide model to explicitly teach reading using scientifically-based reading research methods. Why? Because teaching reading is rocket science (Moats, 1999) and there is significant deep pedagogical content knowledge that reading experts should be familiar with and able to teach. Why? Because for more than three decades, advocates of “whole-language” instruction have argued that learning to read is a “natural” process for children.

While it is the strong and sustained advocacy of caring parents that encouraged Robina State School to seek Australian Dyslexia Association Dyslexia Friendly School accreditation, it is the business of every school to be on a trajectory of sustained improvement. The aim should be having all students able to read at or above grade level by the end of Grade Three through the explicit teaching of reading.

To become an ADA approved Dyslexia Friendly School, Robina State School has undertaken ADA accredited Multi-Sensory Learning teacher training and ADA professional development for

Differentiation in the Classroom. Since 2012 Robina State School has continued to reflect on what it means to be a dyslexia friendly school. Robina State School staff members have had professional development that argues that dyslexia is a learning disability that is neurologically based, genetic in nature, and lifelong. Teachers also understand that learning difficulties including dyslexia are frequently resistant to change and that most dyslexic children have normal intelligence. Indeed, some gifted children may have dyslexia.

## Supporting students with dyslexia – a ten point plan

Robina State School has identified ten actions to support students with dyslexia and to build an even more ‘dyslexia friendly’ school environment:

1. *Identification*. Current students and new enrolments are identified early, with all available information, in particular a diagnosis of dyslexia, stored centrally on the student’s *OneSchool* profile which is accessible by all relevant staff members.
2. *Explicit Instruction*. All lessons are supported by clear learning intentions (WALT - What am I learning today?) and success criteria (WILF - What I am looking for?). The learning - and how to be successful - is explicit and differentiated for students, with a lesson structure that moves from teacher modeling to independent learning. Students receive immediate feedback in the classroom as well as written feedback on written assessment.
3. *Learning Goals*. Students with dyslexia in Grade Three are closely monitored and supported by classroom teachers and learning support staff. Students with dyslexia in Grades 4 to 6 have SMART learning goals for literacy to inform the instruction in the classroom and to monitor progress over a five week cycle, from Week 1 to Week 5 of each term, beginning in Term 2. SMART goals are *specific* (or significant), *measurable* (or meaningful), *attainable* (or action-oriented), *relevant* (or rewarding) and *time-bound* (or trackable).
4. *Classroom Accommodations*. Teachers use the Information Statement from the Gold Coast Dyslexia Support Group to guide them in creating dyslexia-friendly



*Because classroom instruction, more than any other factor, is crucial in preventing reading problems, it is a primary focus for effecting change.*

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classrooms. This is achieved through giving consideration to classroom instruction, classroom management and classroom strategies.

5. *Reasonable Adjustments for Assessment.* All students are entitled to show their knowledge, understanding and skills in response to assessments. Accordingly teachers ensure that all students are able to participate in assessment and demonstrate the full extent and depth of their learning. Special provisions in the conditions of assessment reflect differentiation, or adjustments, made in teaching and learning. Special provisions are not adjustments to the standards on which student work is judged. They do not involve compensating for what the student does not know or cannot do. Special provisions in assessment are made through the way the assessment is presented, the way students are allowed to respond, the physical conditions and/or the time allocated for the assessment tasks.
6. *Intervention.* The Reading Intervention program used at Robina School is called *Project*

*X CODE* (Oxford University Press). It is an evidence-based program based on a systematic, synthetic phonics program using supporting texts and a multi-sensory approach. The program provides four 30 minute sessions per week for up to 20 weeks. Student progress is monitored and decisions regarding effectiveness of the program are made.

7. *Professional development.* Teachers at Robina State School are completing online professional development in the course *Dyslexia and Significant Reading Difficulties*. Twelve teachers at a time are involved and the school is currently in its second rotation of this course. Selected teachers will also be trained in *Multi-Sensory Learning*.
8. *Technology.* Access to technology or the option to BYO device is available, with assistive technologies to support student learning and assessment.
9. *Social emotional program.* In Term Two, students will be involved in a new program *Success and Dyslexia* aimed at young people with dyslexia. The program teaches coping strategies and positive assertiveness, promotes positive thinking, and builds resilience.
10. *Reading tuition.* A new initiative providing onsite before/after school paid reading tuition for students with dyslexia is in the planning stages. Parents will have the option of choosing to pay for additional tutoring outside of school hours.

### **Investing in initiatives to improve capacity**

The journey of implementing a school-wide model to explicitly teach reading using scientifically-based reading research methods is in its second year at Robina State School and the pace of change has been increased due to the Queensland Government *Great Results Guarantee* funding. This funding has been used to support a number of initiatives: instructional coaching to build teacher capacity, teacher release to invest time in collaborative learning, up to date evidence-based

reference material and resources, and increased teacher aide time to support response to intervention. Because classroom instruction, more than any other factor, is crucial in preventing reading problems, it is a primary focus for effecting change. All teachers need the knowledge and skills necessary for effective practice to ensure they are able to improve classroom instruction. However, many have not received the necessary training and therefore a vast number need ongoing professional development in this research-based knowledge.

We are now flush with information about teaching students to read and write well. The challenge is putting all of this information into practice at the whole school level. While there are exceptional and highly skilled teachers at every school, principals may be less confident about how to ensure that all teachers have the knowledge, skills and dispositions necessary to ensure that their students develop increasingly sophisticated understandings of literacy. As a school my teachers need precision in their teaching. This precision comes when teachers have an extensive knowledge base and make expert decisions, based on data, about the instructional needs of their students.

Teaching reading is a complex problem; therefore there is no simple solution. Complex problems often require complex but systematic, reliable, and valid responses as a solution. The school-wide model is designed to take what we know from scientifically based reading research and translate it into effective reading practices. The overall goal is to build the capacity, communication and commitment to ensure that all children are readers by Grade 3.

### **A school-wide model for capacity, communication and commitment**

Building capacity means creating the infrastructure and systems school-wide that can support and sustain effective reading practices for all students. Building communication means developing a common language surrounding beginning reading and establishing channels

*It is the business of every school to be on a trajectory of sustained improvement. The aim should be having all students able to read at or above grade level by the end of Grade Three through the explicit teaching of reading.*

of communication school-wide, among teachers and administrators and across classrooms and grades. Building commitment means developing consensus that beginning reading is the top priority and dedicating the resources necessary to meet the goal of ensuring all children are readers by grade 3.

There are six critical components of the school-wide model:

1. *Goals.* Goals for reading achievement are clearly defined, anchored in research, prioritized in terms of importance to student learning, commonly understood by users, and consistently employed as instructional guides by all teachers of reading
2. *Assessment.* Instruments and procedures for assessing reading achievement are clearly specified, measure essential skills, provide reliable and valid information about student performance, and inform instruction in important, meaningful, and maintainable ways.
3. *Instruction.* The instructional programs and materials have documented efficacy, are drawn from research-based findings and practices, align with state standards and benchmarks, and support the full range of learners. A sufficient amount of time is allocated for instruction and the time allocated is used effectively. Instruction optimizes learning for all students by tailoring instruction to meet current levels of knowledge and prerequisite skills and organizing instruction to enhance student learning.
4. *Professional development.* Adequate and ongoing professional development is determined and available to support reading instruction.
5. *Leadership.* Strong instructional leadership maintains a focus on high-quality instruction, organizes and allocates resources to support reading, and establishes mechanisms to communicate reading progress and practices.

6. *Commitment.* Commitment to the school-wide model and scientifically-based reading research methods

Actions are in place to continue to develop Robina State School as a dyslexia friendly school. More importantly, the school has embarked on implementing a school-wide model to explicitly teach reading using scientifically-based reading research with the goal that all students will be able to read at or above the grade level standard by the end of Grade Three. Teaching reading is rocket science, and Robina State School is building the capacity to have expert teachers of reading who know what to do to teach reading systematically and explicitly, because teaching reading is both essential and urgent.

#### Reference

Moats, L. (1999). Teaching reading is rocket science: What expert teachers should know and be able to do. American Federation of Teachers. Retrieved from <http://www.louisamoats.com/Assets/Reading.is.Rocket.Science.pdf>

*The school-wide model is designed to take what we know from scientifically based reading research and translate it into effective reading practices.*

The Editor welcomes letters from readers about articles published in the *Bulletin* or on any other topic of interest to LDA members. Please submit to [wendy.m.moore@gmail.com](mailto:wendy.m.moore@gmail.com)

# Consultants Corner

**Diane Barwood**

**I**n my post box this morning I found a glitzy, glossy, eye-catching advertisement for a company offering tailored lessons which are purportedly developed according to a child's individual needs. The post-card style brochure states that the company's specialist, trained tutors teach to the Australian Curriculum. The advertisement is for a fast-growing business in the Melbourne area. It seems that parents in Melbourne are increasingly interested in accelerating their children's learning, either to increase their NAPLAN results or, possibly, to help them to gain a scholarship.

Why would parents choose an LDA Consultant when there is an appealing business just around the corner where the child's classmates appear to be enjoying themselves? How can parents know whether such an impressive-sounding facility will assist their child who is struggling to cope with the basics, especially if there are multiple issues affecting achievement? We know that sometimes such facilities just plug the children into a computer programme, with minimal connection being made to the learning needs of the child. Others have generalist teachers, or sometimes university students, employed as assistants.

Usually children who are referred to LDA Consultants are well behind their class curriculum level and require the expertise of someone who is aware of evidence-based practice and how to deal with individual differences and any comorbid needs. We trust that LDA Consultants present themselves as highly qualified and experienced professionals who can identify the specific needs of individual children. We expect that they can programme each student's learning at the level of need rather than in line with their class curriculum.

For many decades, LDA Consultants have provided a valuable teaching service to families: a

service which has gained the confidence of parents, teachers, paediatricians, psychologists and other professionals. This confidence has been the result of LDA requiring the highest standards from those registered as Consultant teachers. LDA takes very seriously the claim that Consultants registered with the association attend current, up to date, professional development courses. Each Consultant must produce evidence of a minimum of 20 hours of input within set guidelines. It is hoped that this encourages the concept of 'lifelong learning': something teachers would love to instil in their students.

At the moment, the Consultant Committee is processing the dozens of annual renewals of consultant memberships. The process has become very demanding over recent years, and having Elaine McLeish provide administrative support has made a significant difference. Elaine does all initial screening before the PD summaries go to the entire committee for review. This year has been much easier, with the vast majority of Consultants using electronic summaries. This has cut the need for time consuming and costly scanning and postage. Elaine has also been responsible for initial contact with those needing support with their applications and with requests for resubmission.

The online tutor service is also proving valuable, with access to LDA Consultants available on the website through the Online Tutor Search. This service is designed to allow potential clients to search for specialist teachers with specific skills in teaching students with learning difficulties by location, year level, and areas of specialist expertise. The service is making it easier for tutors and clients to make contact promptly and get on with the business of improving learning outcomes.

**Diane Barwood**  
Convenor, LDA Consultants  
Committee



For details about the process and requirements for becoming an LDA Consultant, please refer to the website [www.ldaustralia.org](http://www.ldaustralia.org)

# Our kids will climb trees too... A mother's perspective on dyslexia

**Claire Conlon**

Claire Conlon works as a senior manager at a community health service in Melbourne and is a member of the Australia and Melbourne Dyslexia Support groups. email: bear71claire@hotmail.co

**L**ook at this picture of you as a four year old and I see all of the hopefulness in your eyes. I would often ask you, "What do you want to be when you grow up?" and you would say, "A policewoman mummy, so I can throw all the baddies into jail" and I would laugh and think to myself, "You can be whatever you want to be".

You started kindergarten with the bravery and curiosity of all the rest. But by seven or eight or nine years old, after years of struggling with what seems to come naturally to the others, after years of holding your head up anyway and trying so hard without success, you seem removed.



Separate. You realise this place is not for you; school is not for you.

Your pride is at risk and you must preserve what little self-esteem you have: you memorise things, avoid reading in class, act the class clown to protect yourself from the reality that you cannot read, but you

are constantly surrounded by the printed word: text messages, emails, magazines, internet, books and exams. It is a constant reminder.

I often think about you walking along the corridors of school, when

Continued next page >

## Advertise in LDA Bulletin

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you were five and six. I can hear you laughing and talking. There is a peace in your voice and an eagerness about being at school. Then I see you at eight years old and I wonder when it all changed for you? I told the teachers constantly that I thought you were dyslexic; you did not seem to be learning letters or sounds. They all said, "We don't use the "D" word; it will all click for her, you wait and see", and I would think to myself, "These are the professionals; they should know."

But you were heading down the same path as almost every dyslexic kid before you. An eventual label of dyslexia was stamped on your file after I had you assessed. The diagnosis was one thing, but the real battle was about to start.

You and I became a team as we went down a path of

- tutor after tutor after tutor
- trying SPELD
- the Davis dyslexia program
- neuro-feedback sessions
- counselling
- testing for glasses/tinted lenses, etc.

And you look at me, tired. "Mum, what on earth are you taking me to now?"

Then the teenage years, and the ensuing battle for you to get to school each day. After years of being brave and strong, the overwhelming feelings of anxiety and depression kick in, which add to these layers of struggle, and we fight to keep this at bay. Your teacher calls me wondering why you are not at school today, why homework has not been completed, why the book has not been read.

Some teachers just want to pass you on to the next year level, with not a clue how to help and work with you. There are others who are very eager to help but they are few.

It's a confronting moment when you realise that the system is not for your child. It's a confronting moment when you realise that no matter how hard you try and no matter how hard the special education team is trying, school is structured to benefit one type of child with one type of mind and abilities.

I get small glimpses of what it must be like for you at school; to ask with embarrassment what is on the board; to wonder why you don't have any reading jobs when you want one because all of the other kids have them; to want to be able to read "chapter" books; to have to sign forms when you are not sure what they are all about or how to spell the street name in your address; to sit an exam and randomly colour in the multiple choice answers because you cannot read the questions.

I consider taking you out of school to learn in other ways, but I do not know how to teach a dyslexic child to read. So I send you off to year 10, trying to make sure you are not one more casualty, one more bright, capable mind slipping through the cracks, moved on to become next year's problem, passed on because nobody quite knows what to do. Everybody is trying, but the system is not meant for kids like you. I tell you that you are smart, creative, funny - but you are in an environment every day that does not always recognise this.

I drop you off at school each day and you get out of the car, and you

walk bravely ahead, alone. I think about you sitting there watching the teacher write on the board. Maybe the other kids start writing straight away, answering her question, responding as they should. Maybe hands shoot in the air. And I wonder what you're thinking in those moments?

As we head towards the business end of your schooling life, I ponder whether a bright, capable mind such as yours can actually achieve whatever you want to be. Can the Victorian school system that currently does not facilitate and support a person with dyslexia, help you to become a nurse, or a vet, or a policewoman so you can "throw all of the baddies into jail"?

The early childhood development years are almost past. What is the future for a caring, intelligent, nurturing child whose only difficulty is the written word? How can you become the nurse or the vet that your heart desires? How can a teenager with intelligence and compassion achieve the goals that she covets although she is dyslexic and is tormented by the written word. I feel we have explored many avenues for assistance but there are many dead ends. How many other children continue to run out of options and optimism?

My daughter is bright, active, nurturing, and has a great ability to work with and care for people and creatures in need. As Albert Einstein said, "Everyone is smart, but if you judge a fish by its ability to climb a tree, it will spend its entire life believing it is stupid." What more can be done to enable her to climb her tree?