

Bulletin



**Special Issue:
Thinking about Learning**

LDA Council 2020-2021

(as of December 2020)

OFFICE BEARERS

PRESIDENT

Associate Professor Lorraine Hammond

VICE-PRESIDENTS

Dr Molly de Lemos

Dr Nicole Todd

TREASURER

Renaë Watkins

SECRETARY

Sarah Asome

COUNCIL MEMBERS

Priscilla Carlisle

Olivia Connelly

Jo Hirst

David Morkunas

Dr Roslyn Neilson

Dr Bartek Rajkowski

Dr Sally Robinson-Kooi

Lyn Stone

Troy Verey

GENERAL MANAGER

Michael Roberts

ADMINISTRATIVE STAFF

Administration Officer: Duke Babovic

Consultant Administration: Bec Rangas

LDA Committees

ADMINISTRATION

Convenor: Renaë Watkins

PUBLICATIONS

Convenor: Dr Molly de Lemos

PROFESSIONAL DEVELOPMENT

Convenor: Dr Lorraine Hammond

WEBSITE AND SOCIAL MEDIA

Convenor: Dr Bartek Rajkowski

AWARDS

Convenor: Dr Nicole Todd

LDA Publications

AUSTRALIAN JOURNAL OF LEARNING DIFFICULTIES

Editor: Dr Tanya Serry

LDA BULLETIN and LDA eNEWS

Editor: Dr Roslyn Neilson

LDA Contacts

CORRESPONDENCE ADDRESS

PO Box 382, Epping NSW 1710

EMAIL ENQUIRIES

enquiries@ldaaustralia.org

LDA MISSION

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.

THE BULLETIN

The Bulletin is published three times a year. For information about submitting articles, and for requests to reprint articles, please contact the editor: bulletin.editor@ldaaustralia.org.

The Bulletin is designed by Andrew Faith

(www.littledesignstudio.com) and printed by

DTS Communicate.

3 From the President

Lorraine Hammond

4 Report from the General Manager

Michael Roberts

5 Tribute Elaine McLeish

Ann Ryan

6 Council news

7 LDA Awards 2020

8 In this issue of the Bulletin...

Ros Neilson

9 Using research evidence well in education

Connie Cirkony, Mark Rickinson, Mandy Salisbury, Joanne Gleeson, Lucas Walsh, and Blake Cutler

14 Sequel to *Using research evidence well in education: Reflections from the Editorial Team*

Ros Neilson, Tom Nicholson, Molly de Lemos

15 Cognitive Load Theory in action

Ollie Lovell

20 Spaced, interleaved and retrieval practice: The principles underlying the Daily Review

David Morkunas

The English language learner and second language development: Essential background knowledge for classroom teachers

Sally Robinson-Kooi

More WARs: the development of the WARL and the WARN

Kevin Wheldall and Robyn Wheldall

Reducing reading failure in adolescence: Implementing direct instruction in a high school context

Jessica Colleau Terradas

Book review
Reading Success in the Primary Years

James Chapman

Book review
How we learn: The new science of education and the brain

Ros Neilson

Consultant notes

Olivia Connelly

23

27

31

32

33

35

From the President

Lorraine Hammond

My LDA President's Report, written at the end of a very complicated 2020, is a simple offering: A practical note that reports on how one teacher, working in an interesting and very challenging context, documented the results achieved in a Foundation (first year of formal schooling) class as she embarked on an explicit instruction approach to early literacy. I'm sure the note will ring a bell with readers, and will give us all food for thought.

By way of background: For the last three years I have led professional development and instructional coaching in the Kimberley Schools Project in Western Australia (<https://kdc.wa.gov.au/the-kimberley/kimberley-schools-project/>). I work with 23 schools and hundreds of staff from socially disadvantaged schools with students who often speak English as a second language/dialect and record some of the poorest attendance rates in the nation. The Kimberley Schools Project privileges explicit instruction.

Two years ago I started at Halls Creek District High School, at the same time one of my graduates took up the challenge to head to this part of the Kimberley. She had completed two units with me on explicit and Direct Instruction and strategies to support students with learning difficulties and learning disabilities.

Our Kimberley Schools Project team documented that each day my former student was teaching phonological awareness and systematic decoding instruction to her Foundation class. This lesson takes about 45 minutes and includes a fast-paced review of previously learned material such as phoneme segmentation and letter sound knowledge as well as decoding words, non-words, irregular words and passages of text. This segment of the lesson is referred to as the 'Daily Review'.

We use DIBELS (Dynamic Indicators of Basic Literacy Skills), which is a free resource with an excellent research base (<https://dibels.uoregon.edu/>), to monitor student achievement. We administered the formative assessment five times during the year. I'll report here the scores achieved by this Foundation class on one of the DIBELS subtests: the Phoneme Segmentation Fluency (PSF) test. Phoneme segmentation is a critical precursor skill for encoding (spelling) and decoding (reading) words. The PSF test requires students to segment words into phonemes (e.g., shout = /sh/ /ow/ /t/), and the score is the number of phonemes correctly segmented in one minute. More information about the PSF test is provided here: <https://dibels.uoregon.edu/assessment/dibels/measures/psf.php>.

The PSF test was administered to this class five times during the year: in Term 1 Week 3, Term 2 Weeks 3 and 9, and Term 3 Weeks 3 and 9.

Table 1 summarises the final assessment – the Term 3 Week 9 PSF results – for the 21 students who remained in the class for the year, categorising the children in terms of the risk factor cut-offs included in the DIBELS norms for PSF. Over half of the students in the class were well clear of the 'at-risk' cut-off in the skill

of phoneme segmentation by the end of three terms in their first year of schooling.



Figure 1 on the following page tells the story much more clearly, however. The columns indicate the PSF scores at each testing time for each of these 21 students. The first thing to notice is the steady and very impressive gains shown over the year by almost all the students. They started at a very low level; bringing them to this point represents a considerable achievement. The second thing to notice in the chart is the attendance factor, which is reflected in the fact that all the low scores were achieved by students who were simply not present for all the testing occasions (the reasons for non-attendance are not documented here). It was only the students who were actually in class during the year who made strong gains – which suggests strongly that these critical precursor skills do not develop without explicit teaching.

Overall, this Foundation class was identified by the team as achieving outstanding early literacy results through formative assessment data gathered by DIBELS testing. The Daily Review aspect of the teaching routine was judged to be particularly effective. It quickly became apparent that the 'little and often' daily reminders of literacy precursors were having a significant impact on student achievement in reading.

For schools in the Kimberley, and schools I work with in Perth and other parts of Australia, the Daily Review provides multiple opportunities for practice and reduces the load on working memory to identify letter sounds and apply these to decoding and encoding words. Kirschner, Sweller and Clarke (2006), argue that "The aim of all instruction is to alter long-term memory. If nothing has changed to long-term memory, nothing has been learned" (2006, p. 77). Helping students to remember the many unnatural skills required to learn to read, irrespective of their oral language competency, is critical.

DIBELS norms: Risk Status	PSF Score range corresponding to first year of schooling, Term 3 Week 9	Number of students (%) (n= 21)
No risk	44 and over	11 (52.38%)
Some risk	16-43	5 (23.81%)
Severe risk	Less than 16	5 (23.81%)

Table 1. DIBELS Phoneme Segmentation Fluency 'risk' status for 21 students in the Halls Creek District High School Foundation Class at the end of Term 3

In this issue of the Bulletin...

Ros Neilson, Editor, LDA Bulletin

The theme of this issue of the Bulletin is *Thinking about Learning*. Stanislas Dehaene characterises human beings as not merely *homo sapiens*, the thinking species, but also *homo docens* – the species that teaches itself (Dehaene, 2020). The contributors to this LDA Bulletin invite readers to think about *homo docens* in the context of the classroom, and have addressed the topic from the point of view of both students and teachers. We are invited to think about how students learn, and also to think about how teachers can learn about best practice for teaching.

This Bulletin starts with a report from an ongoing research project that we hope we will be hearing more about over the next few years: the Q-Project, carried out at Monash University by a group of researchers who are interested in how teachers make use of current research developments in their field. They start with a theoretical model of how research can best be used in the educational context, and then present a case study of interview data from one teacher who was a confident user of research. Their model and the case study intrigued our Bulletin co-editors, and we decided to provide a sequel to their contribution that simply raised some of the questions and challenges that seem inevitable at the chalkface as teachers keep trying to learn how to be better teachers. We hope that our readers will continue the conversation – letters to the Editor will be welcome.

Two very practical contributions follow, bringing research on learning directly into the classroom. Ollie Lovell provides a distillation of important

ideas from Cognitive Load Theory, with a wealth of examples of classroom activities to explain the concepts. David Morkunas allows readers to look into his own classroom to see how he implements the critical cognitive psychology concepts of spaced and interleaved practice and retrieval in the Daily Review routine.

Dr Sally Robinson-Kooi provides a practical summary of what teachers of EAL/D students (students whose first language is not English) have to understand about the learning challenges involved.

Dr Kevin and Dr Robyn Wheldall re-ignite the WARS, providing a sequel to their article published in an earlier LDA Bulletin [LDA Bulletin 2020, vol. 52(1)], on curriculum-based measures – tools that they have been researching that teachers can use to learn about their students' progress during a period of teaching intervention.

A teacher perspective follows: an account from Jessica Terradas-Colleu of her own efforts as a Special Education Teacher to use evidence-based research to support high school students with literacy difficulties.

The *Thinking about Learning* section ends with reviews of two books that are very relevant to the theme. Professor James Chapman comments on Westerveld et al.'s *Reading Success in the Primary Years: An Evidence-Based Interdisciplinary Approach to Guide Assessment and Intervention* (Springer Open Access, 2020), and Dr. Ros Neilson provides a review of what deserves to be the standard textbook on thinking about learning: Dehaene's *How we learn: The new science of education and the brain* (Penguin Books, 2020).

Our contributors to this edition of the LDA bulletin include researchers, classroom teachers and specialist consultants, and we thank them very much for their thoughtful efforts. We hope readers enjoy this issue.

Ros Neilson
Editor, LDA bulletin



Book review

Reading Success in the Primary Years

Reviewed by **James Chapman**, Professor of Educational Psychology, Massey University, New Zealand.

Reading Success in the Primary Years: An Evidence-Based Interdisciplinary Approach to Guide Assessment and Intervention, by Marleen F. Westerveld, Rebecca M. Armstrong and Georgina M. Barton. Springer Open Access, 2020.

Open Access available at: <https://link.springer.com/book/10.1007/978-981-15-3492-8>

Most teachers of reading in the junior primary school work hard to continually improve their teaching in a desire to achieve better literacy learning outcomes for their students. Many teachers are frustrated with not knowing what to do better, especially for those students who struggle with learning to read. These teachers are aware that Australian children should be doing better in reading and literacy in general, but they feel they don't have the necessary tools to make a significant difference for their students. The research reported in this book should be of interest to all teachers who want to improve the literacy outcomes of their students. The authors have

undertaken challenging research in real Australian classrooms. Working with teachers, speech pathologists, school leadership teams and students, they describe and present results from a carefully designed research project that spanned two school years. Using a mixture of methods involving statistical analyses of results as well as in-depth interviews, the authors present findings that are important and relevant for teachers of reading and literacy in Years 1 to 4. Teachers who are motivated to do a better job for their students will find compelling approaches that can be adapted in their own classrooms. The authors provide excellent examples of up-to-date research and how this can be translated into practice. I recommend this useful book to all teachers of junior primary school students.