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Bulletin

In the spotlight: Tier 2 intervention and differentiation

THE BULLETIN

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From the President

Elaine McLeish

I was recently reminded by our Business Administrator, Bec Rangas, about a significant milestone on the horizon for LDA. Bec is deeply committed to LDA and our mission and is full of ideas for our future growth. Sometimes it's hard to keep up with her when you're feeling somewhat bogged down by the minutiae of the day-to-day, but her enthusiasm is contagious and a valuable asset to LDA. The important milestone is, of course, our 60th anniversary in 2025, and Bec is already generating ideas about how we can celebrate this event with all the pomp and circumstance it warrants.

My involvement with LDA has been for a mere 25 years when it was the Australian Resource Educators' Association (AREA). We have members whose involvement goes much further back to the very early days of the Diagnostic and Remedial Teachers' Association (DRTA). To refresh my memory, I revisited the excellent history of LDA written by Dr Josephine Jenkinson in 2005. This history was commissioned by LDA and published as a six-part series in the Australian Journal of Learning Difficulties from March 2006 to March 2007 and is available on our website if you would like to learn more about how we began and how we have evolved. It is a fascinating read.

Since 1965, when a small group of remedial teachers in Melbourne established the DRTA, a great deal has changed in the learning difficulties arena, including our name on three occasions, terminology, technology, and the evidence from scientific research. However, from our recorded history, it is apparent that some challenges remain the same. The importance of PD to LDA's ongoing viability, identified in our history, is equally relevant today, as is the unsustainable burden on volunteers.

In recognition of the complex and ever-increasing volunteer workloads combined with the need to grow the organisation through an expanded Professional Learning calendar, the 2021/22 Council decided to increase the number of paid staff. To that end, we now have Bec as our full-time Business Administrator and Hema Desai as our new Education Manager (3 days a week). To complete our staffing requirements, we recently advertised a part-time General Manager(GM) position, which generated an overwhelming response from some excellent candidates. The GM position is crucial, and we are looking for the right person to drive our organisation forward in the coming years. At the time of writing, we are preparing to interview the shortlisted applicants and looking forward to announcing an appointment in the next few weeks.

We are already benefiting from the excellent work Hema has been doing. She has accomplished a great deal in the short time she has been with us and significantly reduced the workload of the PD Convenor and Committee. Hema has demonstrated outstanding initiative, professionalism, knowledge, and flexibility; working with her is an absolute pleasure. I thank her sincerely for everything she is contributing to LDA.

Since my report for the December 2022 Bulletin, we have now welcomed five new members to Council to fill all our casual vacancies. We greatly appreciate their dedication to LDA and the broad range of expertise and experience they bring to our Council.

Dr Anne Bellert, a Senior Lecturer from the Melbourne University Graduate School of Education, will be the Convenor of the Consultants Committee. As the outgoing Consultant Convenor, I am incredibly grateful to Anne for taking over this role. You will find a report from her in the Consultant notes.

Stephanie Murphy from Victoria filled another vacancy, and we are forever thankful that she agreed to step up to Secretary immediately. Steph has proved an invaluable Executive member and contributed to this report's council news.

Dr Damon Thomas, Senior Lecturer in Literacy Education at the University of Queensland, has been active in our Awards Committee, communicating with universities about potential nominations for our awards.

Laura Glisson, a Speech Pathologist from WA and co-director of "Tracks to Literacy", has joined the Publications Committee.

Erin Rollason, the Learning Intervention Co-ordinator at McKinnon Secondary College in Victoria, has joined our PD Committee and is planning a series of Maths PD sessions for us.

Other news from Council

The 2023 LDA Council has been busy getting into the business of the new year. In addition to recruitment, the Executive team has been working on website upgrades managed by Geoff Ongley, our IT and Systems Committee Convenor and tech guru.

Our Treasurer, Iain Rothwell, has streamlined our banking and significantly improved our financial reporting processes by moving to a larger accounting service. We are also in the process of a long overdue updating of all LDA's policies and procedures documentation.

Our committees meet regularly and have been busy working together on other parts of the business, including curating professional development, preparing for award nominations and sourcing contributions for upcoming publications.

Jacinta Conway leads the Professional Development Committee. Together with Hema, they are compiling

a stellar lineup of in-person, online and on-demand professional learning sessions for the year. These include the most recent courses: Understanding the NCCD for Consultants, Writing Scintillating Sentences, Morph Mastery and Unlocking Numeracy.

Dr Alison Madeleine is the editor of the Australian Journal of Learning Difficulties(AJLD) and leads the Publications Committee. They have been busy editing and sourcing content for future editions of the AJLD and Bulletin.

LDA always seeks contributors to our publications in line with evidence-based practices. If you have a contribution, please contact Julie Scali, Bulletin Editor, at *bulletin.editor@ldaustralia.org* Or Alison Madeleine at *amadeleine@ldaustralia.org* concerning the AJLD.

The Awards Committee, led by Eleanor McMillan, is now taking nominations for the annual LDA and AJLD awards. The closing date for nominations is 5 June 2023. You will find information about our awards on the LDA website: *ldaustralia.org/award-nominations*

The Committee is seeking nominations from Universities for the Australian Journal of Learning Difficulties Early Career Researcher and the LDA Tertiary Student Awards. Please reach out if you want to know more or have a student you wish to nominate, contact Eleanor McMillan, Awards Committee *emcmillan@ldaustralia.org*

In conclusion, here is a personal note from our new Secretary, whose sentiments I share:

> *My time as Secretary so far has seen me interact with many members of the LDA community. Resoundingly, our community is bound together by our like-mindedness and devotion for improving education in Australia for all students and particularly those with learning difficulties. We are fortunate that an organisation like ours is fuelled by volunteers who are passionate about improving outcomes through evidence-based practice. Our members are continually seeking to improve their professional knowledge for their students and to become better advocates. Without each of you, LDA would not be what it is today.*

Report prepared by
Elaine McLeish, President, LDA

Elaine McLeish is enjoying retirement from a long teaching career in primary and special education and as an LDA Consultant. She has a strong history of active contributions to LDA, serving as the LDA Referral Officer and Administration Officer for the Consultants Committee for many years. She has recently contributed as Convenor of the Consultants Committee, Vice-President, and Acting Treasurer. She is a Life Member of LDA

Elaine is also actively involved with her six grandchildren and divides her time between suburban Northcote and the wild coast of Cape Paterson in Victoria.

Steph Murphy is an Implementation Consultant for Australian Education Research Organisation [AERO]. In her current role, she works alongside schools to better understand what makes evidence-based best practice 'stick' and how quality implementation impacts the uptake and sustainability of evidence-based practices. Over her career, Steph has worked as a primary school teacher across government and independent sectors in both junior and middle years. Her most recent teaching position was in Literacy Learning Support, working with students in a high English as an Additional Language or Dialect school with reading difficulties and upskilling teachers on evidence-based reading approaches.

In 2021-2022, Steph joined ESA as a Literacy Coach in a Commonwealth Government literacy project, which saw her work across Australia with 17 schools to implement a phonics-based approach to early reading and writing. Steph is passionate about upskilling and improving teacher understanding and use of evidence-based practices for the mutual goal of improving student outcomes.

LDA and AJLD Awards

Would you like to see one of your colleagues recognised for their achievements?

Nominations are open for the annual LDA and AILD Awards.

Award criteria and nomination procedures are on the LDA website, ldaustralia.org/award-nominations/

Nominations close 5th June 2023.

Awards presented at the LDA AGM on 14th October 2023.

Upcoming Professional Development Events

Numeracy Language Promotion in Secondary Schools

Date: Tuesday, 9th May
Time: 7.30–8.30pm AEST
Presenter: Erin Rollason
Format: Online Webinar

Morph Mastery

Date: Tuesday, 13th & 20th June
Time: 7.00–8.30pm AEST
Presenter: Louise Selby
Format: Online Webinar

Text Analysis and Essay Writing

Date: Monday, 24th & Tuesday, 25th July
Time: TBC (see website)
Presenter: Jenny Baker
Format: Online Webinar

Making Maths Real & Fun

Date: Tuesday 12th & Wednesday 13th September
Time: 7.30–8.30pm AEST
Presenter: Sarah Wedderburn
Format: Online Webinar

For more information on our events please visit
https://ldaustralia.org/events/

Become a member of LDA and take advantage of discounted professional development events.

Visit https://ldaustralja.org/lda-membership/

Consultant notes

Dr Anne Bellert, Consultant Committee Co-convenor (with **Elaine McLeish**)

Allow me to introduce myself. I am new to the LDA Council and new to Victoria, but I am not new to LDA. I have been a member for 15+ years, working as a Regional School Inclusion Advisor and then a teacher education academic while I lived in northern NSW. In late 2022, I began a new role as a Senior Lecturer in the Learning Intervention Team at Melbourne Graduate School of Education (University of Melbourne), and I'm now setting up life in Melbourne.

As a long-term member, I've been acutely aware of the role of the council, administration and support staff who do so much to support LDA and those of us working with students experiencing learning difficulties. Once I moved to Victoria, it was an easy decision to offer to work with LDA and, hopefully, in some small way, do my part and support the contribution of others.

The role of Co-convener of the Consultants' Committee appealed to me because I am aware of how much of a difference one excellent consultant can make to a child or young person's learning in school and their subsequent success in life – and LDA has over 60 such excellent consultants! I am pleased and honoured to be part of the team who are supporting LDA's consultants. There is also some overlap in areas of interest in my professional practice, working with various academics who specialise in learning difficulties, and I hope that, in the longer term, I can facilitate a 'conversation' between academics, post-graduate students and consultants, all of whom work towards the goal of effective teaching and support for students who experience learning difficulties.

For now, I hope to provide effective support to individual consultants if needed, and to consultants as a group. I am fortunate to have Elaine co-steering the ship, and a great team of colleagues on the Consultants Committee to discuss and inform the level of support we can provide. Other members of the Committee include: Felicity Brown and Eleanor McMillan (both Council members), Diane Barwood and Jan Roberts, Marg Young and Elaine, who plans to continue as a member of the Consultants' Committee (and a co-opted Co-convenor, for a little while at least!).

Events and professional learning opportunities

You are likely aware of the interesting and resourceful range of professional learning opportunities that were available for consultants in February and March. These included the "Understanding the NCCD for LDA Consultants" presentation by new consultant, Dianne Dawson, on 8th February. A big THANK YOU, Dianne, for your very well-considered and informative presentation. It was attended live by about 40 consultants, with more viewing it later online.

By the time you read this, you may also have attended or viewed recordings of the following events, with further information to come in terms of reviews and number of attendees.

- The recorded webinar, "Writing Scintillating Sentences" by Robin Grace (Spalding) which was available online until 14th March.
- "Unlocking Numeracy" one-day conference in the Treacy Centre in Parkville on 2nd April
- "Morph Mastery" online webinar presented by Louise Selby, 15th & 22nd March, 7pm

And here's one to note in your calendar for May: Erin Rollason's live webinar, "Numeracy Language Promotion in Secondary Schools" on Tuesday 9th May, from 7.30pm to 8.30pm AEST.

The Rosemary Carter Award

It's that time of year again - time to consider a colleague in your network who you think deserves recognition as an outstanding LDA Consultant Member. The Rosemary Carter Award was established in 2019 to recognise an outstanding Consultant Member who has contributed to the field of learning difficulties. This could be through their work with students, advocacy for students and their families, or through education of the wider community, while considering access to services for disadvantaged families. Nominations are due by 5th June 2023, with details of how to nominate available in this edition of the Bulletin.

I look forward to working with the Consultants Committee to support the invaluable work of the renowned LDA Consultants during 2023.

Dr Anne Bellert
Consultants Committee Co-convenor.

In this issue of the Bulletin...

Julie Scali, Editor, LDA Bulletin

I am delighted to share with you our Spotlight on Tier 2 intervention and Differentiation edition of the Bulletin. This edition focuses specifically on the common reading difficulties students experience, as well as considerations and recommendations for small group intervention in the primary and secondary context, in both literacy and numeracy.

Tier 2 and tier 3 intervention (sometimes referred to as Wave 2 and Wave 3), whilst essential for closing learning gaps for students, it is widely misunderstood in terms of what it is, how it looks, and when it should take place. This misunderstanding also applies to differentiation. Recently, we lost an icon of education- Dr Jim Rose- who has paved the way for so much of what we know about evidence-based practice in literacy. His most prominent work was that of the 'Rose Review', a United Kingdom national inquiry into early literacy teaching in 2006. It is not surprising that his work is one we refer to here to explain the nuances of intervention and differentiation, their similarities, and differences. Rose cites:

> *First Teaching, sometimes also referred to as 'Wave 1' teaching, is that teaching which is provided for all children as part of the school's entitlement curriculum. It is usually delivered by children's regular teacher or teachers. Although normally delivered with a whole class, first teaching may well involve differentiation and a variety of approaches, including whole-class teaching, guided group work, independent activity and individual support where appropriate. It can also include in-class support from, for example, a teaching assistant, where this is part of the school's regular provision. This is distinct from any additional teaching which is provided for selected children only in order to meet particular learning needs or support catch up. This can be for groups of varying sizes and/or individuals and is sometimes called 'Wave 2' and 'Wave 3' intervention. It is often delivered by an additional teacher or teachers, or by a regular teacher outside standard teaching time. Such additional support should always supplement, never replace, first teaching.*
>
> Rose Report, p195.

Our feature piece of this edition is 'Common reading problems and how to help children who have them' by Louise Spear-Swerling. This article outlines the three common reading difficulty profiles through case studies and recommendations for assessment and intervention. Spear-Swerling explains how recognising these three profiles can provide a valuable starting point for planning reading instruction and intervention.

The second piece is a supplemental guide for schools in how to embed small group intervention in schools entitled 'How to embed small group tuition in schools: A guide for school leaders'. It is written by Julie Sonnemann, Jordana Hunter and Anika Stobart from the Grattan Institute. Following on from this supplemental guide, Dawn Grant-Skiba outlines considerations for Tier 2 intervention in a secondary context.

Of equal interest but in the primary setting, Greg Clement outlines how as a Principal of a Victorian school, he led successful change in literacy through a multi-tiered system of support (MTSS) model. Also in this Bulletin, we explore the topic of differentiation. Often incorrectly used interchangeably with intervention, differentiation is what needs to happen in every classroom at the whole class level. Peter Westwood outlines recommendations and challenges for differentiation in mathematics.

To wrap-up, this edition also includes a book review entitled 'Structured literacy interventions: Teaching Students with Reading Difficulties, Grades K-6' edited by Louise Spear-Swerling. Spear-Sperling provides practical guidance and recommendations for teachers in how to identify the three reading difficulty profiles in students and how to provide intervention in all aspects of literacy, including writing. She has curated an exceptional series of chapters written by well-respected educators, including a chapter on spelling interventions by Louisa Moats. It is an excellent read for teachers and learning support specialists.

To all educators in Australia, I would like to wish you all a well-deserved first term break. Happy reading!

Reference

Rose, J. (2009). *Independent review of the primary curriculum: Final report*. Department for Children Schools and Families: United Kingdom.

Julie Scali
Editor, LDA Bulletin

Julie Scali is the Director of Literacy Impact, specialising in structured literacy and Response to Intervention. A former deputy principal in Australia, she now works with principals, school leaders and teachers with consultancy, professional learning and online modules to embed schoolwide evidence-based literacy approaches.

Common types of reading problems and how to help children who have them

Louise Spear-Swerling

Three patterns of reading difficulties are common. This article explains how recognizing these three patterns can provide a valuable starting point for planning reading instruction and interventions.

Recently I visited the classroom of a thirdgrade teacher, Ms. Jackson (all names are pseudonyms). Like many teachers, Ms. Jackson had a diverse group of students, which included many children who were English learners or who had limited home experiences with academic language and literacy. Several children with disabilities also were included in her classroom, three with learning disabilities and one with high-functioning autism. Ms. Jackson had great enthusiasm and dedication for teaching her students, but she was concerned about the number of children who entered her class with problems in reading, commenting quietly to me at one point, "So many of them are needy, but in different ways."

Individual children do vary in important ways, including in their specific interests, personalities, and prior learning experiences. However, when it comes to reading problems, three common patterns of difficulties tend to recur repeatedly, and most struggling readers in Ms. Jackson's class probably fit one of these patterns. Recognizing the underlying pattern of poor reading is particularly helpful to providing effective intervention and differentiation of classroom instruction. This article reviews research on common patterns of reading difficulties and explains how understanding those patterns is useful both to classroom teachers and literacy specialists.

What are the three types of reading problems?

As displayed in Figure 1, the three common patterns (often termed profiles) of poor reading involve specific word-reading difficulties (SWRD), specific reading comprehension difficulties (SRCD), and mixed reading difficulties (MRD; Catts, Compton, Tomblin, & Bridges, 2012; Leach, Scarborough, & Rescorla, 2003; Lesaux & Kieffer, 2010; Lipka, Lesaux, & Siegel, 2006; Valencia, 2011). The descriptions of common types of reading problems in this article build on continuing scientific studies as well as earlier research such as that of Valencia and Buly (2004), who outlined six types of reading difficulties, which are consolidated in these three common patterns.

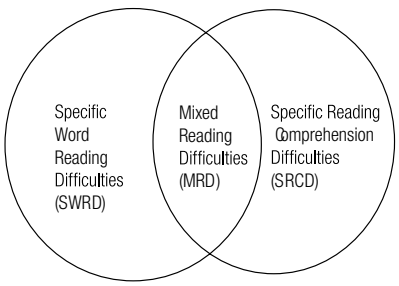

Figure 1: Common patterns of reading problems

Children with SWRD have problems related specifically to reading words, not to core comprehension areas such as vocabulary or background knowledge.

Those with SRCD have the opposite pattern: poor reading comprehension despite at least average word-reading skills. And those with MRD have a combination of weaknesses in word-reading skills and core comprehension areas. Knowledge of these patterns is useful for helping students with many kinds of reading problems—not only

"Differentiating classroom instruction according to different patterns may improve children's reading outcomes."

those involving certain disabilities (Aaron, Joshi, Gooden, & Bentum, 2008; Nation, Clarke, Wright, & Williams, 2006) but also more experientially based reading difficulties, such as those sometimes found among English learners or children from lowsocioeconomic-status backgrounds (Allington & McGill-Franzen, 2008; Kieffer, 2010; Lesaux & Kieffer, 2010).

Many studies have shown that children with difficulties in word reading benefit from explicit, systematic phonics interventions, whereas children with comprehension difficulties benefit from explicit teaching and modeling of text comprehension strategies as well as from interventions that promote vocabulary and oral language development (Aaron et al., 2008; Clarke, Snowling, Truelove, & Hulme, 2010; Ehri, 2004; Snowling & Hulme, 2012). Aaron, Joshi, Gooden, and Bentum (2008) studied the performance of elementary-age struggling readers who received differentially targeted interventions, depending on whether they had weaknesses specific to word recognition (systematic phonemic awareness and phonics intervention) or comprehension (intervention in comprehension strategies such as ques tioning and summarization). Relative to comparison children who received undifferentiated intervention in resource rooms, the intervention groups made significantly more progress in their weak area of reading.

Differentiating classroom instruction according to different patterns also may improve children's reading outcomes. For example, Juel and Minden-Cupp (19992000) observed four experienced grade 1 teachers at two schools serving primarily low-income students throughout a school year. At the end of the year, overall reading achievement was lowest in the classroom of the teacher who provided the least differentiation of instruction.

In addition, however, children who entered first grade with the lowest phonics skills did best in reading with the teacher who provided the most emphasis on explicit, systematic phonics for the first half of the school year, with more emphasis on vocabulary and discussion of text later in the year. Conversely, children who began grade 1 with strong basic reading skills did very well in reading with a teacher who provided relatively little direct phonics teaching but emphasized discussion of text from trade books and meaning-oriented writing activities from the start; presumably, these children had less need for systematic phonics teaching because they already possessed these skills. This study suggests that differentiating classroom reading instruction according to individual children's word recognition needs and comprehension needs can be beneficial.

Pause and Ponder

- Which assessments are used in your school to assess children's reading? Do these assessments enable you to identify different patterns of reading difficulties? If not, what additional assessments could you use with struggling readers to help you do so?
- Consider the population of children served at your school: grades, proportion of English learners, and proportion who have limited home experiences with academic language or literacy. Which types of reading difficulties might be especially common?
- What are the strengths and weaknesses of the reading curriculum at your school, particularly in relation to patterns of reading problems that might be common? What does the curriculum do well? Which areas need strengthening?

Determining patterns of reading difficulties

The three types of difficulties mentioned in the preceding section involve underlying patterns of strengths and weaknesses in specific language and reading abilities, sometimes termed components of reading (Aaron et al., 2008; Hoover & Gough, 1990). Important components of reading include phonemic awareness, word decoding, fluent text reading, vocabulary, and listening comprehension (National Reading Panel, 2000). The first step in determining a struggling reader's pattern involves assessment of these abilities that underlie reading development.

Begin by Assessing Key Components of Reading

Table 1 shows the most important components of reading to consider in a diagnostic assessment of elementaryage struggling readers, with examples of possible measures to use and suggestions for interpreting them or for additional measures that may be warranted. Various measures may be used to assess each area, as long as the assessments are technically adequate (e.g., reliable and valid) and as long as they provide benchmarks, grade levels, or norm-referenced scores to determine whether children perform appropriately for their grade or age. Children who are poor comprehenders (i.e., those with SRCD or MRD) usually benefit from more in-depth assessment of specific areas of comprehension—for example, consideration of not only their vocabulary but also their performance on different types of comprehension questions such as those involving inferencing, knowledge of text structure, or background knowledge. More in-depth assessment of all component areas, including standardized testing, is warranted in certain situations, such as when children are failing to progress in interventions or a disability is suspected.

Component	Examples of Useful Assessments	Suggestions
Out-of-contextword decoding (and spelling)	• IRI graded word lists • CBMs with nonsense words • Informal spelling inventories	• Include at least one assessment containing nonsense words. • If nonsense word decoding is weak, assess PA. • Spelling inventories may be useful for screening groups.
Oral text reading accuracy	• IRI graded passages: child's *accuracy* of word reading in context	• Consider whether the child applies known decoding skills when reading passages or over-relies on context.
Oral text reading fluency	• IRI graded passages: child's *rate* of reading in context • CBMs involving oral passage reading fluency • Prosody rating scales	• Consider whether fluency problems involve 1) poor decoding, 2) weak vocabulary/listening comprehension, or 3) both areas.
Oral vocabulary	• Informal classroom assessments of child's oral vocabulary knowledge	• Consider whether weak vocabulary accounts for weak listening/reading comprehension.
Listening comprehension (sentences/passages)	• IRI graded passages: child's listening comprehension for passages read aloud by the teacher	• Follow up with multiple measures or more in-depth assessment if needed.
Reading comprehension	• Answering comprehension questions about passages read • Maze CBMs	• Follow up with multiple measures or more in-depth assessment if needed.

Table 1 Key components of reading to assess in struggling readers

An Example: Ayisha, Ben, and Calvin

Ms. Jackson wanted to determine how best to help three struggling readers in her class—Ayisha, Ben, and Calvin—who all had low scores on reading comprehension assessments at the beginning of grade 3. Ms. Jackson had fall universal screening data for these students, which used curriculum-based measures (CBMs) involving oral reading fluency and which provided information about all three children's accuracy and rate of text reading. She also had collected informal reading inventory (IRI) data for the children, which showed their performance on graded word lists, in reading graded passages, and in answering comprehension questions.

This existing assessment data provided some useful information about components of reading involving outof-context word reading, accuracy and fluency of passage reading, and reading comprehension. Ms. Jackson also considered the children's prosody of oral reading on the IRI passages—that is, whether they read with appropriate phrasing and expression. Prosody is an important aspect of fluency because poor fluency may be based in vocabulary and language limitations as well as in decoding (Kuhn, Schwanenflugel, & Meisinger, 2010; Valencia et al., 2010). Children might read the words in a passage with ease but still read with halting prosody because they do not understand the meaning of the text. Timed measures of oral passage reading are useful for assessing reading accuracy and rate, whereas rating scales may be more useful for assessing prosody (see, e.g., Benjamin et al., 2013; Zutell & Rasinski, 1991).

In addition to readily available assessment data, Ms. Jackson also needed further information about the children's specific decoding skills, vocabulary, and listening comprehension. She knew that some use of nonsense words is important in

assessing decoding because nonsense words provide information about whether children can decode unfamiliar words, whereas they may recognize real words from memory (Siegel, 1999). When she administered this kind of decoding assessment to Ayisha, Ben, and Calvin, only Calvin did well; Ayisha and Ben both had decoding problems, mainly in relation to two-syllable words. Ms. Jackson also knew that poor decoders' phonemic awareness (PA)—such as children's ability to perform oral phoneme blending or segmentation tasks—should be considered. However, neither Ayisha nor Ben had difficulties with blending or segmenting phonemes.

Assessing important components of reading does not require administering an exhaustive battery of tests to every struggling reader.

Finally, Ms. Jackson recognized that vocabulary knowledge is particularly central to both listening and reading comprehension (Pearson, Hiebert, & Kamil, 2007) and that vocabulary assessments of struggling readers should be oral. If vocabulary assessments require reading, children with decoding weaknesses may perform poorly simply because they cannot read the words. When Ms. Jackson probed all three students' vocabulary and comprehension performance during classroom instruction over the next week or so, she found that Ayisha's oral vocabulary knowledge seemed excellent; Ayisha also consistently performed well in listening comprehension tasks (e.g., during teacher read-alouds).

However, Ben clearly had vocabulary weaknesses, and both he and Calvin sometimes had comprehension difficulties even during teacher readalouds—that is, they appeared to have weaknesses in listening comprehension. Unlike Ben, Calvin had good vocabulary knowledge; his comprehension difficulties were more often tied to problems in recognizing key points of a text, understanding text structure, and sum marization. Table 2 displays each child's performance on important components of reading.

As Ms. Jackson's experience shows, assessing important components of reading does not require administering an exhaustive battery of tests to every struggling reader. Classroom teachers often have some student data available from commonly collected formative assessments and district-wide universal screening and progress monitoring. They also have observational data based on their students' everyday classroom performance. When more extensive assessment is necessary for a particular child—for instance, if a child's difficulties seem especially serious or difficult to interpret—classroom teachers can consult support staff such as reading specialists, special educators, or Title I teachers. These specialists may be able to help classroom teachers by providing information about available assessments or by administering assessments. For children with disabilities, detailed assessment data about important components of reading and language may already be available in the child's individualized education plan (IEP).

Interpret assessment measures to determine the pattern of reading difficulty

Once teachers have information about the specific component abilities of individual struggling readers, they can interpret these data to determine the type of reading difficulties each student has. Teachers should look for patterns of specific strengths and weaknesses in important component reading and language skills. They also should consider the dynamic underlying children's problems in reading fluency as well as reading comprehension (Spear-Swerling, 2013, 2015), because each pattern may (or may not) be accompanied by difficulties in reading fluency. Moreover, slow reading may sometimes be an adaptive strategy, as when a child intentionally reads slowly better to comprehend a difficult text (e.g., Valencia & Buly, 2004). Table 3 displays the typical patterns for poor readers with SWRD, SRCD, and MRD.

Despite their difficulties with word decoding, children with SWRD usually do well in situations in which information is presented verbally. These students may shine during teacher readalouds and class discussions, able to answer sophisticated comprehension questions accurately and thoughtfully, especially when text content has been presented orally. Although some children with SWRD may have considerable knowledge of sight words, the hallmark of this pattern involves difficulty decoding unfamiliar words using phonics knowledge. These children also may have difficulties with reading fluency due to inaccurate or labored decoding, and they nearly always have poor spelling.

Component	Ayisha (SWRD)	Ben (MRD)	Calvin (SRCD)
Out-of-contextword decoding (and spelling)	• Below grade expectations	• Below grade expectations	• Grade-appropriate
Oral text reading accuracy	• Often inaccurate in grade-appropriate passages	• Often inaccurate in grade-appropriate passages	• Grade-appropriate
Oral text reading fluency	• Rate below grade expectations; prosody often poor because of difficulties decoding	• Rate below grade expectations; prosody often poor, sometimes but not always due to decoding difficulties	• Grade-appropriate rate and prosody
Oral vocabulary	• Grade-appropriate or better	• Below grade expectations	• Grade-appropriate
Listening comprehension (sentences/passages)	• Grade-appropriate or better	• Below grade expectations	• Below grade expectations
Reading comprehension	• Below grade expectations	• Below grade expectations	• Below grade expectations

Table 2 Performance of Ayisha, Ben, and Calvin on component assessments

Pattern	Description	Strengths	Intervention needs
Specific word reading difficulties (SWRD)	• Decoding (and sometimes PA) below average • Spelling below average • Oral vocabulary and listening comprehension at least average • Fluency often below average due to decoding problems • Reading comprehension often below average due to decoding problems	• Good ability to learn orally (e.g., through class discussions and teacher read-alouds) • n Reading comprehension strong when children read texts they can decode	• Explicit, systematic phonics intervention • PA and fluency intervention if needed • Ample opportunities to apply decoding skills in oral text reading, with teacher feedback
Specific reading comprehension difficulties (SRCD)	• Decoding at least average • Reading comprehension below average • Oral vocabulary and listening comprehension may be weak • Fluency may be weak due to language limitations (not poor decoding)	• Good foundational reading skills • Spelling often strong	• Explicit, systematic intervention targeting specific comprehension weaknesses (e.g., vocabulary, inferencing) • Include oral vocabulary and language in intervention
Mixed reading difficulties (MRD)	• Decoding below average • Reading comprehension below average, even in texts children can decode • Reading fluency often weak due to limitations in both decoding and language	• Individual children usually have strengths in specific areas of language or reading (e.g., their knowledge base about specific interests)	• Combination of intervention needs for first two patterns • Multicomponent interventions may be especially useful

Table 3 Common patterns of reading problems

Sight-word knowledge, ability to use context cues, and verbal strengths may enable some children with SWRD to compensate well enough to score at average levels for reading comprehension; however, compensation becomes increasingly difficult as children advance beyond the earliest grades. In relation to implementation of the Common Core State Standards currently influencing English language arts instruction in many states (Shanahan, 2013), students with SWRD can grasp challenging vocabulary and comprehension standards as well as typical readers, particularly in an oral context or with accommodations for their difficulties in reading grade-level text, but will need help meeting foundational standards from the Common Core.

Children with SRCD struggle with reading comprehension despite having at least average decoding skills. Often, their comprehension difficulties are tied to mild weaknesses in vocabulary or broad language comprehension, although generally these difficulties are not severe enough to make them eligible for speech-language services (Nation, 2005). Poor comprehenders may have weaknesses in many specific areas, including use of comprehension strategies, text structure, and background knowledge (Neuman & Celano, 2006; Rand Reading Study Group, 2002). Reading fluency may be poor because of language comprehension weaknesses— that is, a child may read slowly because he or she does not understand the text.

Children with SRCD are likely to meet foundational standards from the Common Core as well as typical readers but may have difficulties with many comprehension-related standards, such as those involving vocabulary, summarization, author's craft, or citing evidence from texts. Although they can decode grade-appropriate texts, they may need considerable teacher scaffolding in order to comprehend them (see, e.g., Shanahan, Fisher, & Frey, 2012).

Children with MRD have a combination of the problems seen in the first two patterns: weaknesses in decoding and phonological skills, but also in core comprehension areas such as vocabulary or listening comprehension. (This is why Figure 1 shows this pattern in an overlapping area between SWRD and SRCD.) Unlike readers with SWRD, those with MRD have difficulties in reading comprehension even when reading texts they can decode well, because of their core comprehension weaknesses. Reading fluency may be poor due to a combination of decoding problems and language limitations. These students often have difficulty meeting both foundational and comprehension-related standards from the Common Core.

Although students with MRD have more generalized reading problems than those with SWRD or SRCD, these students typically do have individual areas of strength, which teachers can capitalize upon in intervention. For example, a student with a combination of decoding and general vocabulary weaknesses may have a strong interest in a specific topic, such as animals or sports, about which he or she has considerable background knowledge and motivation to read.

Poor comprehenders may have weaknesses in many specific areas, including use of comprehension strategies, text structure, and background knowledge.

Ms. Jackson looked at the information from the assessments of component abilities for Ayisha, Ben, and Calvin, and she also reflected on the dynamics underlying each child's reading problems. Ayisha's reading comprehension and reading fluency difficulties obviously were tied entirely to decoding. Her vocabulary was excellent; her comprehension was consistently strong during teacher read-alouds or when she was reading text she could decode; and her slow rate of reading and poor prosody clearly stemmed from labored decoding. Ayisha's pattern of poor reading involved SWRD.

Calvin had the opposite pattern: good decoding and text reading accuracy, as well as grade-appropriate fluency (both in terms of rate and prosody), but weaknesses in reading comprehension and language comprehension. His difficulties in summarization and lack of knowledge about text structure were apparent whether he was reading or listening, an indicator of a core comprehension weakness. His pattern involved SRCD.

Like Ayisha, Ben had problems in decoding, but unlike Ayisha, his difficulties in reading comprehension were not always tied to faulty decoding; they also appeared linked to vocabulary weaknesses. Furthermore, his reading fluency problems likely related to both areas, labored decoding and language comprehension difficulties. Ben's pattern of poor reading involved MRD.

Effective instruction and interventions for each pattern

Clearly, interventions for Ayisha, Ben, and Calvin need to differ in some important ways. The far-right column of Table 3 shows the intervention needs associated with each type of reading difficulty.

Children with SWRD, such as Ayisha, typically require highly explicit, systematic phonics intervention. Ayisha did not have problems in phonemic awareness, but for children with these weaknesses, PA intervention should be integrated with phonics instruction (Ehri, 2004); children can learn PA skills such as phoneme blending and segmentation in the context of decoding and spelling words from specific phonics categories. More advanced students with SWRD like Ayisha—those learning to decode twosyllable or multisyllabic words—often benefit from learning syllabication strategies and structural analysis. Struggling decoders also must apply their developing decoding skills in oral reading of text that provides a rea-sonable match to their word-reading skills, with teacher guidance and feedback (Cheatham & Allor, 2012; Vadasy, Sanders, & Peyton, 2005).

Children with SWRD, such as Ayisha, typically require highly explicit, systematic phonics intervention.

Children with SRCD, like Calvin, need interventions focused on the specific comprehension areas in which they are weak. Because knowledge of text structure and the ability to summarize texts were areas of difficulty for Calvin, Ms. Jackson modeled for him how to identify key points in texts and construct a summary. She also used graphic organizers to teach him about text structure. Ms. Jackson taught these skills in the context of oral activities, such as during readalouds and classroom discussions, as well as in the context of Calvin's own reading. Many comprehension abilities can be developed through listening as well as reading, and including oral language development as part of the intervention may be particularly useful for children with SRCD (Clarke et al., 2010).

Children with MRD, like Ben, need phonics interventions and opportunities to apply decoding skills in reading text, coupled with explicit teaching targeting their specific comprehension weaknesses. Ben's difficulties in comprehension tended to involve vocabulary. For children with limitations in this area, direct teaching of target academic words and strategies for inferring word meanings from context, as well as morphological instruction focused on the meanings of root words and affixes, is often effective (Goodwin & Ahn, 2013). Vocabulary development should occur through oral activities such as teacher read-alouds as well as through students' reading. Multicomponent interventions that address multi-ple components of reading in an integrated way (e.g., Gelzheiser, Scanlon, Vellutino, Hallgren-Flynn, & Schatschneider, 2011) also may be especially valuable for students with MRD.

For all types of reading difficulties, the suggestions for intervention in Table 3 should be implemented as part of a more comprehensive program of English language arts instruction, with strong collaboration between classroom teachers and interventionists to ensure an effective program. For example, children with SWRD, like Ayisha, need instruction in vocabulary, language, and comprehension; however, they do not need intervention in these areas and can usually receive their vocabulary and comprehension development as part of the core general education program, as long as any necessary adaptations of instruction are made (e.g., oral presentation of grade-level material that children cannot read themselves). Likewise, children with SRCD, like Calvin, need to learn the foundational decoding and spelling skills that are part of the expectations for their grade, but they do not need intervention in these areas.

Of course, most classroom teachers have very limited time for implementing interventions with struggling readers.

However, information about common types of reading difficulties can still be helpful to general educators in differentiating classroom instruction. A primary-grade teacher like Ms. Jackson could differentiate instruction through small flexible groups, with one group to meet the most frequent needs of third graders with SWRD (e.g., additional explicit phonics instruction focused on syllabication and decoding of twosyllable and multisyllabic words) and another to meet the most frequent needs of those with SRCD (e.g., additional instruction in vocabulary and background knowledge). Children with MRD might participate in both groups. This approach is unlikely to meet the needs of all struggling readers in a class, but it could still benefit many students.

Children with SRCD, like Calvin, need interventions focused on the specific comprehension areas in which they are weak.

Indeed, this is what Ms. Jackson did for Ayisha, Ben, and Calvin. Ayisha and Ben made very good progress with this approach. Calvin made some progress, but he ultimately needed more intensive intervention through a reading specialist, to which he responded well.

TAKE ACTION!

- Identify a struggling or at-risk reader in your classroom.
- Consider available assessment data, and administer any additional assessments of language or reading needed to help you identify the child's pattern of reading difficulty.
- Think about whether the child's difficulties involve decoding only, comprehension only, or a combination of both areas. If the child has problems in reading fluency, consider whether those problems involve decoding, language comprehension, or a combination of both areas. Also, consider the child's strengths.
- Decide on the child's pattern of reading difficulty.
- Use this information to differentiate instruction or plan an intervention. Also, decide the best way to monitor the child's progress.

Additional Information About the Patterns

Earlyand Late-Emerging Reading Problems

Each pattern of reading difficulties may emerge relatively early or relatively later in schooling, with early-emerging problems generally defined as reading difficulties evident by grade 3 and late-emerging problems as those first manifesting in grade 4 or later (Leach et al., 2003). Ayisha, Ben, and Calvin's problems, apparent at the beginning of grade 3, would all be considered early-emerging.

Early-emerging reading difficulties often involve problems in decoding—that is, either an SWRD or MRD pattern (Leach et al., 2003)—because learning to decode is central to children's early reading development (Ehri, 2004). Still, some decoding problems do not manifest in the earliest grades, and frequently these weaknesses involve decoding of complex or multisyllabic words rather than one-syllable words (Catts et al., 2012; Lipka et al., 2006). A child might have mild weaknesses in phonological skills that do not greatly affect her decoding of simple words but that become more problematic as she advances into grades 4 or 5 and encounters harder words.

As Calvin's example shows, reading problems involving SRCD can appear in the earliest grades. More often,however, these problems are lateemerging (Catts et al., 2012; Leach et al., 2003), related to escalating demands for reading comprehension in grades 4 and up. A student with mild weaknesses in vocabulary or background knowledge might progress normally in reading comprehension at first but have more difficulties as the expectations for comprehension increase across grades. These students do often have early language weaknesses, but the language weaknesses may not actually affect reading until the middle or upper elementary grades.

Research on late-emerging reading problems suggests that screening and intervention for both broad language weaknesses and phonological weaknesses may help prevent future reading difficulties (Scarborough, 2005). Also, these studies indicate that even the best primary-grade screening and intervention efforts cannot be expected to prevent all reading problems, so providing opportunities for reading intervention beyond the primary grades is essential.

Prevalence of Different Patterns in Specific Groups of Children

The prevalence of different types of reading difficulties depends not only on grade level but also on the school population. For instance, many studies suggest that children from certain demographic groups, such as English learners and those from low-income families, may tend to have weaknesses in vocabulary, academic language, and academic background knowledge (August & Shanahan, 2006; Barone & Xu, 2008; Neuman & Celano, 2006). Teachers at schools serving these populations, such as Ms. Jackson, can expect to encounter relatively greater numbers of children with MRD or SRCD as opposed to SWRD. Some children will experience decoding problems, but because they may often have vocabulary weaknesses too, they may tend to demonstrate a pattern of MRD rather than SWRD. If schools serving these populations provide a strong emphasis on vocabulary and academic language from the earliest grades, this may help to prevent many children's reading difficulties.

Certain patterns also tend to be associated with some disabilities. Children with high-functioning autism often have a pattern of SRCD, with poor reading comprehension despite average or even better-than-average word decoding skills and with comprehension difficulties connected to the specific cognitive-linguistic weaknesses associated with autism. Conversely, children with dyslexia typically display a pattern of SWRD (Huemer & Mann, 2010) usually associated with phonological weaknesses. Although assessment of individual poor readers' component abilities always is important, teachers' awareness of the patterns commonly associated with these disabilities can provide an initial basis for planning instruction and accommodations.

As the preceding discussion suggests, individual children's experiences (including instructional experiences), as well as their intrinsic abilities, can influence their patterns of reading difficulties. Children can have vocabulary weaknesses because of language disabilities or simply because they were not exposed to the vocabulary words; they can have decoding problems because of a learning disability such as dyslexia or because of inadequate phonics instruction. However, knowledge about causation is not necessary for

MORE TO EXPLORE

Here are a few additional sources for readers interested in further information about ways to assess, differentiate instruction, or plan interventions for children with different patterns of reading difficulties:

- Kamhi, A.G., & Catts, H.W. (2012). *Language and reading disabilities* (3rd ed.). New York, NY: Pearson.
- Kosanovich, M. (2012). *Using "instructional routines" to differentiate instruction: A guide for teachers*. Portsmouth, NH: Center on Instruction. Full text available: eric.ed.gov/?id=ED531909
- Lipson, M.Y., Chomsky-Higgins, P., & Kanfer, J. (2011). Diagnosis: The missing ingredient in RTI assessment. *The Reading Teacher, 65*(3), 204–208.
- Oakhill, J., Cain, K., & Elbro, C. (2015). *Understanding and teaching reading comprehension: A handbook*. New York, NY: Routledge.
- Walpole, S., & McKenna, M.C. (2007). *Differentiated reading instruction: Strategies for the primary grades*. New York, NY: Guilford.
- Reading Rockets professional development webcasts: www.readingrockets.org/webcasts
- The Iris Center: iris.peabody.vanderbilt.edu

information about the child's pattern of reading difficulty to be valuable in instruction; children with decoding or vocabulary weaknesses need intervention in those areas regardless of the ultimate cause of the weaknesses.

Points to Remember

Information about individual poor readers' patterns of reading difficulties provides an extremely helpful starting point for teachers of reading. Children with SRCD aren't likely to profit from phonics intervention, whereas those with SWRD and MRD generally are. Successful phonics intervention should enable struggling readers with SWRD to attain grade-appropriate reading comprehension, whereas those with MRD also will require a comprehension component in their interventions. A fluency intervention that emphasizes speed and automaticity of word decoding may help children with SWRD and MRD, but it is unlikely to help a disfluent reader with SRCD, who may benefit much more from interventions focused on vocabulary and comprehension development.

Children with different patterns of reading difficulty also tend to benefit from different technology supports (Erickson, 2013) and to display different kinds of strengths that can be tapped in the classroom. And they require different types of progressmonitoring measures to gauge their progress during intervention—a measure sensitive to decoding growth for SWRD, one sensitive to growth in vocabulary and/or comprehension for SRCD, and both types of measures for MRD. Information about common patterns of reading difficulties may be only a starting point, but it is a valuable foundation for differentiating instruction and planning effective interventions in reading.

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How to embed small-group tuition in schools – a guide for school leaders

Julie Sonnemann, Jordana Hunter and **Anika Stobart** from the Grattan Institute

Small-group tuition – educators working with just a few students at a time in short, highly focused sessions – is among the most effective learning interventions available. Delivered well, it can add an extra four months of learning on average over a year, helping many struggling students catch-up (*Evidence for Learning (2021b)*).

This quick guide gives school leaders a snapshot of the best evidence on how to deliver high-quality small-group tuition. There's a list of useful school resources in section 4.

This guide complements our new Grattan Institute report, *Tackling under-achievement: Why Australia should embed high-quality small-group tuition in schools*.

Small-group tuition: your questions answered

This section summarises evidence from a recent systematic review by Nickow et al (2020) and an evidence summary by Evidence for Learning (2021a), unless cited otherwise.

What subjects should be covered and at what grade level?

Small-group tuition is effective for both literacy and numeracy, and both primary and secondary (Haan, 2021)

Which students should be selected?

Students who have fallen behind grade-level standards should be considered. Only students who will benefit from short-term small-group tuition should be selected. *Education Endowment Fund (2022)*

What qualifications should tutors have?

Teachers get the best results as tutors. Provided they have effective training, others such as teaching assistants, or university students and graduates in the education field, also get good results under certain conditions. Volunteers, and parents tutoring their own children, are less effective but can still have some impact.

What training do tutors need?

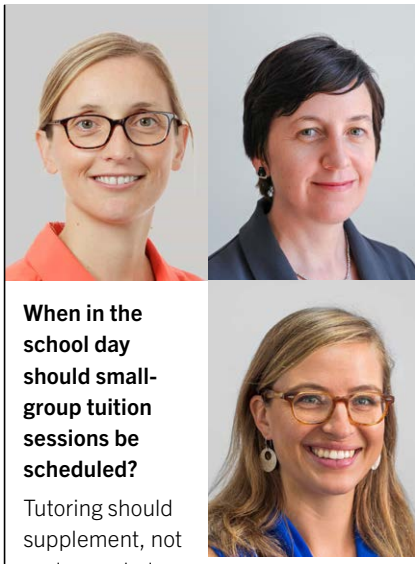
Tutors need appropriate training and ongoing support. Tutors who are not teachers may require additional support, for example structured learning materials and programs. *Evidence for Learning (2021b)*

What is the right group size?

Typically, small-group tuition is done with groups of two to five students at a time. Groups of three tend to provide value for money while ensuring quality (*National Tutoring Programme (2020*). Groups of more than six tend to be less effective. *Education Endowment Fund (2022)*

What should the instruction entail?

Evidence-based literacy and numeracy approaches are key. The instructional material should be targeted to the needs of the students in the group. Monitoring student progress with frequent informal assessments will help tutors to tailor instruction (Robinson et. al. 2021 and Education Endowment Fund 2022)



When in the school day should small-group tuition sessions be scheduled?

Tutoring should supplement, not replace, whole-class instruction. Tutoring sessions should be scheduled to avoid conflicts with core subjects, or with the same subject in which tutoring is provided (*See National Tutoring Programme (2020)*). Two effective tutoring programs reviewed by *Nickow et al (2020)* had a policy that the tutoring sessions should not conflict with the subject of the tutoring).
Rotating sessions wherever possible can help.

Should small-group tuition be conducted only during the school day?

Evidence shows tutoring has better results when it is conducted during the school day, because it is easier to ensure students attend.

Can small-group tuition be done online?

There is emerging evidence that online tutoring and tutoring using computer-assisted technologies can also be effective.

How frequent should tutoring sessions be?

To get the best results, students should get up to one hour of tutoring at least three times a week. Primary school students may benefit from more frequent but shorter sessions, such as 20-minute sessions five times a week.

How long should a small-group tuition program go for?

At least 10 weeks, with some programs extending for 20 weeks. Generally, if students do not respond to small-group tuition within 10 to 20 weeks, they should be re-assessed to determine what support is likely to be best for them.

How much does the tutor-student relationship matter?

Ensure tutors take time to build relationships with students and understand their needs – it is key to the success of tutoring (*Education Endowment Fund (2022)*). For an example of guidance on cultural responsiveness relevant to tutor-student relationships in Australia, see *Narragunnawali* resources).

Small-group tuition should be part of a 'response to intervention' model

High-quality catch-up tuition should be part of a school-wide 'response to intervention' model, not just a series of stand-alone programs. A 'response to intervention' model is a sub-component of a broader 'Multi-Tiered System of Support' (MTSS). MTSS is a more comprehensive framework which includes both academic support (the response to intervention model) as well as behaviour supports.

Under a 'response to intervention' model, all students first receive high-quality universal classroom instruction, with targeted additional teaching doses for students who need it. (*Hempenstall (2012)*; *Fletcher and Vaughn (2009)*; *National Center on Response to Intervention (2010)*; *Fuchs and Fuchs (2017)*; and *Haan (2021)*)

Under this model there is a strong focus on preventing learning gaps emerging in the first instance. If a large or growing number of students are identified as needing additional, small-group tuition, school leaders should investigate whether improvements are needed to raise the quality of whole-class instruction.

Whole-class instruction should include universal screening of all students with high-quality assessment tools, to identify learning gaps early.

Three tiers of support

A 'response to intervention' model typically has three tiers (see Figure 1). Tier 1 involves high-quality universal instruction to meet the needs of most students. Tier 2 involves targeted additional support, often in small groups, for students at risk. And Tier 3 involves even more intensive support, often one-on-one, for students who show minimal response to Tier 2.

The quality of small-group tuition will only be as good as the quality of the instruction provided in the sessions. Evidence-based literacy and numeracy approaches within small-group tuition are essential.

A feature of 'response to intervention' models is that teachers, both in the general classroom setting and the intervention setting, continually monitor their students to determine whether they need more or less additional help, moving between the three tiers. Small-group tuition is often used as a short-term intervention (Tier 2) to help students return to whole-class instruction (Tier 1).

Of course, small-group tuition can serve other purposes beyond providing a short-term extra learning boost. For example, it can help students who have acute learning needs or disabilities (in Tier 3), or help re-engage students who often miss school. In those cases, it may involve specialist, ongoing and one-on-one tutoring.

Underpinned by evidence-based literacy and numeracy approaches

The quality of small-group tuition will only be as good as the quality of the instruction provided in the sessions. Evidence-based literacy and numeracy approaches within small-group tuition are essential. Examples include teaching reading using synthetic phonics, and effective oral language interventions. For example, see Evidence for Learning (2021) on *phonics* and *oral language*.

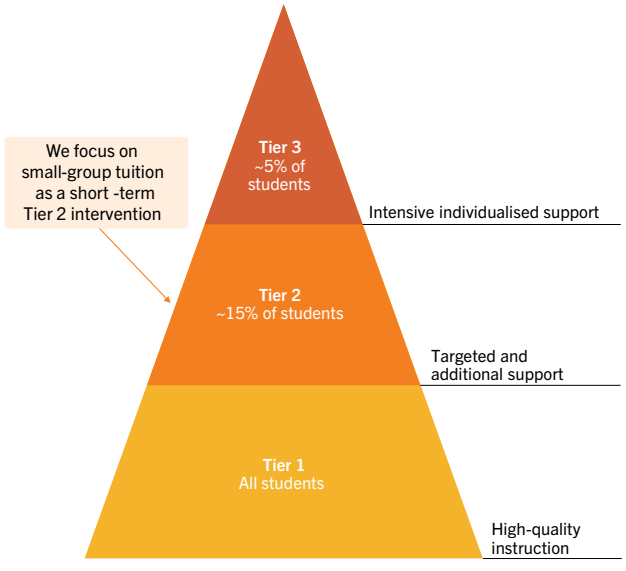
'Structured programs' in literacy and numeracy – where effective strategies and techniques are sequenced carefully and packaged up with relevant content, materials, and training – can be useful for small-group tuition.

Cost-effectiveness considerations

There are several ways that schools can maximise the cost-effectiveness of small-group tuition. School leaders should weigh up four factors when deciding how to deliver small-group tuition.

Type of tutor?

First, school leaders can consider using teaching assistants or university students and graduates in the education field, rather than qualified teachers. This can substantially reduce salary



Source: Bruin and Stocker (2021)

Figure 1: Three tiers of support in a 'response to intervention' model

costs, with only small reductions in the quality of teaching and learning (Nickov, 2020).

But to ensure high-quality small-group instruction, such tutors will need appropriate training and may need structured literacy or numeracy programs (*Evidence for Learning (2021a)*; *Evidence for Learning (2021b)*; *Sharples et al (2018)*; and *Robinson et al (2021)*).

The tutors should be overseen by a teacher with good literacy and numeracy intervention training, who should also help monitor the progress of the students.

Size of group?

Second, school leaders should consider the most cost-effective group size for small-group tuition. The size of the group has a big impact on the cost. For example, a group of four students will cost about 25 per cent less per student than a group of three (*Evidence for Learning (2021a)*).

Best evidence to date suggests groups of three provide value for money while ensuring quality, but researchers are still exploring this issue. Some evidence suggests grouping students based on their skill level may be most effective (*Robinson and Loeb (2021), p. 20)*.

Amount of tutoring?

Third, school leaders should consider the most cost-effective tutoring dosage. More time in tutoring sessions costs more.

The evidence suggests that three sessions per week of up to an hour each delivers good results. Doing more than this isn't necessarily always better – the evidence is still emerging on this issue, and some evidence suggests running sessions four-to-five times a week does not lead to additional learning gains (*Poverty Action Lab (n.d.), page 8*).

Small-group tuition should run for at least 10 weeks, but if students do not respond within 10 to 20 weeks, they should be re-assessed to determine what support is likely to be best for them.

Use of technology?

Fourth, school leaders should consider delivering small-group tuition using technology in various ways.

Online tutoring, or a blended model of online and in-person tuition, can have positive results, although evidence is still emerging (*Robinson and Loeb (2021)*). Other recent evaluations include the Smith Family Learning Pilot reports (2021 and 2022), the Education Endowment Foundation *online tuition pilot (2021c)*, as well as a *Spanish Randomised Controlled Trial (2022)* and an *Italian randomised study*.

Online delivery can offer benefits such as better matching tutors to students by overcoming geographical barriers. This would help to get better results for a similar cost.

High-quality digital materials and assessments can improve the quality of small-group instruction, as well as potentially reduce costs by reducing the amount of time tutors need to prepare for sessions.

Computer-assisted 'intelligent tutoring' programs can provide personalised learning paths for students (For a rigorous study showing the benefits of intelligent tutoring, see *Mostow et al (2002)*).

This may be a cost-effective option, given that it enables tutors to take on higher caseloads (For example, a study by *Chambers et al (2011)*) involves groups of six students using computer-assisted technology.

But evidence is still emerging, and there is little information on which computer-assisted programs are effective. For example, a systematic review by Paul and Clarke (2016) finds no evidence of effectiveness of computer-aided instruction for secondary students in reading.

Useful guides on small-group tuition

These guides from the UK, the US, Victoria, and NSW provide further useful advice on how best to run small-group tuition programs in schools.

International guides:

- *Making a difference with effective tutoring*, Education Endowment Foundation (2022). This UK guide provides evidence-based practical advice for school leaders.
- *Best Tutoring Practice, Briefing for Schools*, National Tutoring Programme (2020). This UK guide helps public schools make the most of the National Tutoring Programme.
- *Accelerating student learning with high-dosage tutoring*, Robinson C.D., Kraft, M.A., Loeb, S., and Schueler, B.E. (2021). This US guide summarises the evidence for effective tutoring.

Australian state government guidelines for COVID catch-up initiatives:

- *Tutor Learning Initiative*, The Victorian Government (2022). This outlines how schools can implement Victoria's COVID tuition program, including different practice approaches.
- *COVID intensive learning support program*, The NSW Government (2022). This outlines the evidence for small-group tuition, and how it should best be delivered.

For a summary of findings from the evaluations of the Victorian and NSW COVID-19 catch-up tuition initiatives, see Chapter 2 of our main *report*.

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Tier 2 interventions in secondary schools – challenges and strategies

Dawn Grant-Skiba

Introduction

There are numerous reasons why a secondary school student may struggle with learning. Some students may have a specific learning disorder, such as dyslexia or dysgraphia which cause difficulty with reading and writing. In fact, statistics reveal that nearly 10% of Australian students aged five to 18 have a disability (AIHW, 2022). Other students may experience a learning difficulty, for instance resulting from post-traumatic stress disorder (PTSD), that impairs their ability to recall information. Alternatively, some students may grapple with a learning difficulty due to inadequate classroom literacy instruction. Regardless of the cause of a student's struggles, those experiencing academic difficulties require additional adjustments and support.

The latest Program for International Student Assessment (PISA) scores in literacy and numeracy show that nearly 40% of Australia's 15-year-olds perform below proficiency level (Education GPS, 2023). This worrying figure suggests that secondary school students experience learning difficulties that may result in them entering adulthood incapable of participating fully in society. Secondary school students who struggle to access core curriculum require evidence-informed intervention to close this learning gap.

Best practice in closing these learning gaps calls for a multi-tiered system of supports (MTSS), to not only prevent literacy difficulties but also ensure underperforming students receive targeted, evidence-informed interventions that will meet their specific needs and context. Response to Intervention (RTI) provides a useful framework for supporting struggling students at the secondary level (de Haan, 2021). RTI promotes the use of high-quality instruction as the foremost way of meeting the learning needs of struggling students, regardless of disability or difficulty. These interventions are usually in the form of strategies or programs provided at the universal, whole class (Tier 1), targeted, small group (Tier 2), or intensive, individualised (Tier 3) levels of support. This article provides an overview of some of the unique challenges facing secondary schools to support students requiring targeted academic interventions at the Tier 2 level - and offers some practical strategies for Tier 2 intervention. Tier 2 intervention is targeted at students who do not respond as expected to universal, whole class instruction.

Challenges of providing Tier 2 support in secondary school

Durrance (2023) placed the challenges of providing multi-tiered support in secondary schools under two broad categories: logistical and instructional. Logistical challenges relate to the organisation and implementation of supports, including elements such as the availability of physical resources and timetabling. Instructional challenges focus on how to provide these supports,

like finding qualified staff and developing evidence-based curriculum for small-group intervention. In light of these challenges, it is important that secondary schools plan and implement intervention that is responsive to the unique context of secondary schools and students (Duffy, 2007).

The latest Program for International Student Assessment (PISA) scores in literacy and numeracy show that nearly 40% of Australia's 15-year-olds perform below proficiency level

Several studies have provided insights into the complexities of students transitioning from primary to secondary schools (Hanewold, 2013; Hopwood, Hay, and Dyment, 2016). The structure of the secondary school setting poses a challenge to providing secondary-aged students with additional learning support (de Bruin and Stocker, 2021). While students usually enjoy a heterogeneous classroom environment in primary school, they are now faced with conflicting and increased demands on their time and focus. Students attend more time-restricted and subject-focused classes that are taught by a variety of teachers and often in different areas of the school. They move frequently between buildings and

classrooms. There are multiple teachers that students need to get to know, whose names they need to learn, and who have varying expectations. In such logistically challenging environments, it may be difficult to identify and meet the needs of students who are struggling with their learning unless specific, well-planned processes are in place. These processes would need to include well-trained personnel and research-aligned resources for identifying, diagnosing, monitoring, and evaluating all supports and interventions. When and where interventions would take place – withdrawal or in-class – add further complexity.

Another challenge with providing Tier 2 support is teacher availability and capacity. There have been cries of an impending acute shortage of teachers in Australia for over 15 years (Abo, et al., 2013; Christie, 2006; Longmuir, 2023; Weldon, 2015). By 2025, it's projected that there will be a shortage of 4,000 secondary school teachers in Australia (Convery, 2022). All students are affected by the teacher supply crisis, but vulnerable students, such as those with additional learning support needs, are most affected (Precel & Heffernan, 2022). They struggle with the changing faces of teacher replacements presented to them daily, due to absences or an initial lack of teachers to fill vacant roles. Moreover, even in non-volatile times, there is a scarcity of teachers who are interested in or qualified to work with mainstream students with additional needs. Most subject teachers have not been adequately trained to deal with the complexities of supporting students with learning difficulties (de Bruin & Stocker, 2021). In a review of the models of special education disability provision in Australia, Dally, et al. (2019) outlined how the shift from a supportive to an inclusive model has further affected the delivery of education services. The authors underscored the need for adequately trained staff with the capacity to teach students with special needs.

Practical strategies for Tier 2 intervention in secondary schools

Despite perceived and real challenges, schools are required by law to support students who are performing below expectations. The Disability Discrimination Act, 1992 (DDA) and the Disability Standards for Education 2005 (DSE) require that all Australian students with a disability must be able to access and participate in education on the same basis as their peers. Under the DDA, disability includes:*"A disorder . . . that results in the person learning differently. . ."*. To meet these standards, most schools follow a contextualized process of identifying, monitoring, and evaluating students in need of additional support and the type of systematic, structured intervention that best suits their needs.

Tier 2 intervention in the secondary setting, while logistically challenging, is a must for secondary students experiencing academic difficulties.

Adjustments for student difficulties can include special provisions for examinations, adult support through a Student Learning and Support Officer (SLSO), and the use of adaptive technology and curriculum adjustments, as well as modified assessments. Strategies for Tier 2 intervention include collaborative teaching, teacher modelling and targeted instruction. However, according to a recent Grattan Institute report (Sonnemann and Hunter, 2023), small-group tuition may be the most effective way to support students who are lagging behind their peers, such as those in need of Tier 2 intervention. This strategy involves a trained adult (a teacher or tutor) meeting frequently (up to three times per week) with a small group of up to three students, over a defined period of time (one or two terms) and providing focused learning support to bridge the gap in the students' learning. For this intervention to be effective, the report recommends that schools embed high-quality small-group tuition that comes with clear, research-informed guidelines, broad support for schools and teachers in terms of resources and training, and research funding to develop best practice. There is already evidence of high-quality small-group tuition working well in Australia. Naidoo (2011) related how some pre-service teachers from the University of Western Sydney successfully provided small-group tuition to Indigenous students at a remote secondary school in the Northern Territory. Similarly, case studies carried out in two NSW secondary schools revealed the benefits of small-group tuition for students who were facing learning difficulties because of the interruption to learning caused by the recent coronavirus pandemic (NSW Education, 2022).

Tier 2 intervention in the secondary setting, while logistically challenging, is a must for secondary students experiencing academic difficulties. This may take place during study periods or in an alternating timetable to ensure students are not missing the same subject area each week. It does however require all staff to understand the 'why' behind, and the importance of an RTI framework throughout the school.

One suggestion for all secondary schools is for universal screening, which is a key component of RTI, to occur at the start of Year 7 and again in semester 2. Universal screening of key skills such as spelling and fluency will support secondary schools to identify students early and put Tier 2 measures in place promptly. Recommended assessments include the Dibels 8th or Acadience Oral Reading Fluency assessments as a starting point for identifying difficulties at the beginning of every student's secondary school journey.

Conclusion

The logistical and instructional challenges that secondary school students face in their learning are barriers that schools are required by law to address. There is an obligation to ensure that all efforts are made to equip students so they can be successful in school and later in their adult life. One way to meet the needs of struggling students is for schools to develop a response to intervention (RTI) that is contextualised to the specific nature of the secondary environment. In researching for this article, the most available research was on Tier 2 interventions in the primary school environment with a dearth of research in the secondary space, yet students are required to attend secondary school in Australia until age 17. Small-group tutoring has been found to be a high-quality, research-backed strategy that may be the best Tier 2 strategy for meeting the needs of struggling students.

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Meeting students' needs through MTSS: A case study of an inner Melbourne primary school

Greg Clement

MTSS, or Multi-Tiered System of Supports, is a framework for providing comprehensive support to all students in a school. It is based on the idea that students have varying degrees of need and that different interventions should be used for different levels of support. It also advises that all students should have access to high-quality instruction and that those who are struggling receive additional support. The framework focuses on three categories: academic, behavioural, and social-emotional.

Academic supports are interventions to improve students' academic performance. These supports include small group instruction, differentiated instruction, and using technology to enhance learning. Academic supports aim to help students who are struggling to catch up to their peers – and assist all students to reach their full potential.

Behavioural supports are approaches to help students improve their behaviour. These supports include positive behaviour interventions and supports (PBIS), social skills instruction, and individualised behaviour plans. Behavioural supports help students to learn appropriate behaviour, and reduce problem behaviours that disrupt the learning environment.

Social-emotional supports are ways to help students improve their social-emotional wellbeing. These supports include social-emotional learning (SEL) instruction, individual counselling, and group counselling. Social-emotional supports help students to develop the skills necessary to manage their emotions and form positive relationships with others.

Overall with MTSS, the goal is to create a system that works for all students and a framework that aligns new and existing strategies to meet each student's academic, behavioural, and social-emotional needs. Many schools' dashboards reflect a lack of equity and engagement, so equity must be embedded in each tier of support.

Offering flexible support, students could move in and out of groups as their skills progressed.

Equipped with this knowledge, it's imperative to foster a system that works for all students. The focus is on interconnecting our practices; the academic, behavioural, and social-emotional practices work together, not as separate initiatives.

MTSS is a process and adjustments need to be made based on students' progress to ensure their needs are being met and that problems don't worsen.

RTI (Response to Intervention) is another framework for supporting struggling students. The key difference between this and MTSS is that the latter is more comprehensive as it includes support for academic, behaviour, and social-emotional wellbeing, whereas RTI primarily focuses on academic support.

MTSS is also a proactive method that involves regularly checking on student progress and making adjustments to support as needed.

The holistic nature of MTSS is why we chose this approach at Clayton South Primary School.

Academic supports

In terms of academic supports, we chose to only provide evidence-based practices at the first tier. We created a huge shift in the science of reading by teaching students to read by:

- using a systematic, synthetic phonics approach
- adding phonemic awareness to our repertoire
- building fluency through repeated readings
- improving vocabulary knowledge through explicit instruction and morphology lessons.

We also researched and implemented Explicit Direct Instruction (EDI) approaches and utilised Direct Instruction (DI) programs like Heggerty and Spelling Mastery. Staff also focused on differentiation to meet each student at their point of need.

Screening tools

Using a screener called Dibels, we identified students who needed academic assistance. This screener is designed to recognise students who may be at risk of falling behind in

reading, and to monitor their progress over time. Our school tutor provided intervention, with students working on their weaknesses, which were pinpointed on their Dibels screeners and in-class assessments.

Students who were identified as the most 'at risk' had their progress monitored every fortnight, while students who were identified as 'below standard' had their progress monitored every five weeks. Offering flexible support, students could move in and out of groups as their skills progressed.

In our first year of using Dibels as a screening tool, we had 52 students (43%) requiring Tier 3 intervention. After providing targeted support throughout the year, we reduced this by half to 26 students (21%). By our third year of implementing MTSS, this number was further reduced to just 12 students (10%).

Separately to Dibels, we also began using a Direct Instruction program called Heggerty and its associated assessments to monitor for phonological awareness across the whole school, and in particular among our new Foundation students.

"A child's level of phonemic awareness on entering school is widely held to be the strongest single determinant of the success that she or he will experience in learning to read - or, conversely, the likelihood that she or he will fail" (Adams, 1990; Stanovich).

Behaviour supports

To incorporate positive behaviour supports for our students, we improved our knowledge of restorative practices and began our School-Wide Positive Behaviour Supports (SWPBS) journey. We introduced a new role of Attendance Officer to support families struggling with getting their children to school, and set up a Breakfast Club too.

Social-emotional supports

Our social and emotional supports were improved with the help of the Resilience, Rights, and Respectful Relationships (RRRR) curriculum. Alongside this program, we also employed a full allied health team on-site, including a speech pathologist, psychologist, counsellors, and paediatrician (on-call through Clayton Monash Hospital).

Further changes in the school

As a direct result of using the MTSS model, we modified the way we present our data to staff. The MTSS model, shaped as a triangle, is represented by Tier 1 (green), Tier 2 (yellow), and Tier 3 (red). Ideally, 80% of students should be coping at the Tier 1 level (classroom instruction). 15% of students are generally in Tier 2, receiving additional support and differentiation. On any MTSS model, 5% of students will need help from a specialist and diagnostic tests. These students sit at Tier 3 of the model.

We also increased our support for teachers and teaching assistants by turning one of our whole-school meetings into a support meeting (following a Case Management approach, as outlined in Lyn Sharratt's book, 'Clarity') .Following the belief that all staff should be supported to manage any and all 'at-risk' students, those students who are not making the required and expected growth in any area become the focus of a Case Management meeting.

Overall with MTSS, the goal is to create a system that works for all students...

During the first 20 minutes of a staff meeting, a Case Management meeting focuses on one student, and everyone gives suggestions and ideas on how to help that student flourish. The classroom teacher is then allocated three weeks to try the new ideas and report back to all staff on any progress made. If there is no progress, a new approach can be suggested at the next Case Management meeting. 'At-risk' students can be selected under any of the MTSS categories: academic, behavioural (including attendance), and/or social-emotional.

Employing these methods, as well as building positive relationships with our students, having a common staff belief system that 'all students can learn when given the right support and the right amount of time', and having the principal as a 'lead learner' meant that our students were set up for success, thanks to early intervention and a holistic approach to support.

Academics	Behavioural	Social-Emotional
Dibels Heggerty Assessment SPAT-R SEAPART LLLL Phonics Screener Year 1 Phonics Check	BASC-3 Behavioural and Emotional Screening System	

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During his five years as a primary school principal, Greg led significant change in two schools, seeing academic results grow in literacy and numeracy by using evidence-based approaches to teaching and learning, and changing to evidence-based assessments and teaching practices. Greg has been on the Executive Network representing small and medium-sized schools.

Greg consults with school leadership teams in order to improve teaching practices and improve academic results in reading, and strongly advocates for students with special needs including dyslexia, ASD, and other learning difficulties.

Differentiation in mathematics teaching: considerations for educators

Peter Westwood

With the advent of inclusive education, differentiated teaching became the most widely recommended approach for use in inclusive mixed-ability classrooms. Differentiated teaching is defined in numerous ways but generally means that a teacher attempts to adjust the classroom program to address students' different abilities, disabilities, learning rates, language backgrounds and cultural characteristics (Hill, 2018; UNICEF, 2020).

The aspects of a classroom program that may need to be adapted include the teaching method, curriculum content, learning activities, resources, assessment methods, and classroom organisation (Tomlinson, 2014). When planning and implementing lessons, the *ideal* of truly inclusive education in the 21st century is that teachers in primary and secondary schools take account of the relevant individual characteristics of *all* students, not just the least and most able. But is this a realistic proposition?

How feasible is truly inclusive teaching?

Sturdivant (2022, np) has optimistically proclaimed (emphasis added) that you can meet students' individual needs by '… *simply* implementing differentiated instruction into your lessons starting today!' In reality however, implementing differentiated teaching is never 'simple', and teachers do not find differentiation easy to implement and sustain. Van Geel et al. (2019, p.51) have rightly remarked: 'Providing differentiated instruction is considered an important but complex teaching skill which many teachers have not mastered and feel unprepared for.' It takes an enormous amount of time and effort for teachers to pre-plan lessons and prepare the resources needed to sustain differentiated teaching over the school year (Barr & Mavropoulou, 2021; Shareefa, 2021). The problem is most obvious when classes are large and diverse (Chan et al., 2002; Hove, 2022; Porta et al., 2002; Roiha & Polso, 2021). The smaller the class, the more feasible differentiation becomes.

One adaptable aspect of working with mixed-ability classes is the teacher's questioning of students during the lesson… There is nothing gained by constantly asking questions that weaker students can't answer.

Effective differentiation in teaching requires teachers to know their students' learning characteristics, strengths and weaknesses *extremely* well. While this is achievable for generalist primary school teachers who take their own class for much of the curriculum, it is problematic in secondary schools where specialist teachers typically teach their subject to many different age groups each week. These secondary school teachers may meet more than 100 students spread across many different classes.

Easier to differentiate for some subjects

Some areas of the curriculum are easier to adapt and differentiate content than others. For example, topics in geography, environmental studies, civics, story writing, and history readily invite the use of different group activities, project work, online research, and individual or pair assignments. Certain subjects are much more difficult to adapt because by their very nature they require that specific skills and understanding must be introduced sequentially. Mathematics is one such subject. The understanding of basic number relationships and some proficiency in calculation must be developed before it is feasible to teach higher-order mathematics concepts. A typical mathematics curriculum is designed with such a logical progression in mind. So, it is perhaps overly optimistic when Demo et al. (2021) proposed that mathematics provides an ideal context for using

differentiation strategies. Writers on the *Mathematics Hub* website (2021) are closer to reality when they observe that differentiation according to students' abilities is one of the hardest ways of teaching mathematics. This is probably one reason why school-wide homogeneous ability grouping (setting) for mathematics is still common in many secondary schools (Loveless, 2013).

The challenge for mathematics teachers

How do mathematics teachers attempt to address the reality that individual students in an inclusive class are at very different levels of competence? There will be a few students who still have a very basic understanding of number relationships and need to develop their skills, accuracy and confidence in calculating. Others will be capable already of operating at an abstract level (Durgin, 2022; Janney & Snell, 2004). Some students will be lacking confidence while others will be interested and motivated to learn. It's not an easy group to teach.

Options when adapting mathematics lessons

Having stressed the difficulties in implementing differentiation in teaching mathematics, let us consider the possibilities available to teachers. These can be divided into those that can be made during a lesson, and those that require pre-planning and preparation (Westwood, 2018).

During the lesson

One adaptable aspect of working with mixed-ability classes is the teacher's questioning of students during the lesson. The rule should be that teachers always try to ask any particular student a question that he or she stands a good chance of answering correctly. This clearly requires that the teacher knows the class very well, and is skilled in determining how to frame a question in different ways. There is nothing gained by constantly asking questions that weaker students can't answer.

Other differentiation can and must occur through close monitoring of students' performance. This leads to certain students being provided with more scaffolding, feedback and support, with reteaching of content when necessary (Bellert, 2015; Doabler et al., 2020). This close monitoring of students is essential if the amount of extra support given to individuals is to really assist them in making better progress, and if the teacher is to evaluate the effectiveness of the lesson.

Planned adaptations

Pre-planned adaptations include modifying curriculum content and learning activities for different ability groups within the class. Differentiation in terms of lesson content should be based on careful pre-assessment of students' existing knowledge and skills (Rubenstein et al., 2015). When teaching mathematics, the challenge for teachers is to design differentiated tasks related to the lesson topic that can be completed by all students at the same time, but to different acceptable standards (Bardy et al., 2021). Adapting content in this way appears to be accomplished most frequently by assigning worksheets, texts or online apps at different levels of complexity (Nazzal, 2011; Taylor-Cox, 2008; Yessingeldinov et al., 2022). This form of differentiation does enable a teacher to match tiered learning activities to the ability of students – but it is necessary to note the negative consequences. For example, providing the most capable students with more challenging and engaging mathematics assignments is relatively easy; but giving much simpler worksheets or texts to students who struggle draws undue attention to that group (Marks, 2013). As Thomas and Feng (2014, p.28) have observed, '… students are often sensitive to being constantly grouped with other struggling students.' Being placed in the 'bottom group' has a very negative impact on a child's mathematics self-concept and motivation. We need to ask ourselves is this really inclusion? It certainly runs counter to the National Council of Teacher of Mathematics (NCTM) position statement (2017) that advocates for all students to have opportunities to experience high quality mathematics instruction.

…close monitoring of students is essential if the amount of extra support given to individuals is to really assist them in making better progress…

Another serious disadvantage of ability-grouping with different work for each group is the difficulty a teacher may have in monitoring these diverse activities and ensuring that they are linked to the common curriculum. There is also a natural tendency to provide the less-capable students with exercises that focus *only* on very simple problems and practising arithmetic computation (procedural fluency). Becoming competent and confident in computation is certainly one priority (Ofsted, 2021), but it should not be the sole activity in every lesson. Differentiated homework is one option for providing additional practice or for extension (Blackburn, 2018). A balance must be maintained between important routine practice exercises for those who need them, and engaging all students in interesting hands-on activities and problems that advance their mathematical thinking (Doabler et al., 2020).

A popular strategy is to encourage *peer assistance* (Coleman, 2018). If this means 'friends helping friends' by clarifying the steps in an algorithm or the best way of approaching a problem, then peer assistance can be valuable. But the system should never be organised so that students who are strong in mathematics are always assigned to helping those with difficulties. Class-wide peer tutoring is actually difficult to implement in some classrooms.

Another approach involving adapting the classroom environment is the use of *learning stations* set up in different corners of the room. These stations are equipped with resources that encourage students to engage in age-appropriate mathematics-related activities, individually or in pairs (Fulbeck et al., 2020). Using learning stations can be part of ability grouping, and may also provide links to *online digital programs* at levels matched to students' abilities. Using digital technology has the benefit of engaging students in motivating multimedia learning activities at an appropriate level, and gaining immediate feedback on their responses (Fadda et al., 2022; Zhang et al., 2022).

Some schools have *teaching assistants* (TAs) available to help a teacher implement a differentiated program. In such cases, it is essential that a TA is given clear instructions from the teacher, and gives support generally in the classroom as well as working with weaker students. It is an obvious disadvantage if the assistant is assigned to helping just one student, because it draws immediate attention from peers.

Remaining dilemmas

While differentiation is the recommended approach for addressing diversity, it is important to recognise

that this model clashes somewhat with the current insistence on schools seeking to establish high academic standards (Blackburn, 2018). In the UK, Australia and the United States, the national curricula presuppose that almost all students will be helped to achieve the expected standards. It is yet to be proved if this is possible in mathematics if content and learning outcomes are differentiated.

Effective differentiation in teaching requires teachers to know their students' learning characteristics, strengths and weaknesses extremely well.

Linked closely with the 'standards agenda' is what teacher effectiveness research over several decades has identified as the most effective form of teaching to maximise learning. Studies of teacher effectiveness have strongly supported teacher-led explicit and direct active teaching (e.g., Good, 1979; Muijs & Reynolds, 2000). In this connection, Doabler et al. (2019) have remarked:

> *In explicit mathematics instruction, teachers play an active and prominent role in building students' conceptual and procedural knowledge. Leading these efforts are vivid demonstrations and clear explanations of mathematical concepts, skills, procedures, and vocabulary.*

How feasible is it to embed differentiation into this explicit instruction model in mathematics? Perhaps time, NAPLAN data, and international surveys will reveal how effective this is in practice. Gordor (2021, p.43) is absolutely correct in saying:

> *Teachers cannot offer every form of differentiation to every student all the time. There exist limits of resources as well as an essential balance that teachers need to make in terms of benefits for student learning on the one hand and classroom efficiency on the other.*

The current situation suggests that teachers should seek to increase their expertise in differentiation at a steady but manageable pace. We have a long way to go.

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Book Review: Structured literacy interventions: Teaching students with reading difficulties, Grades K-6

Reviewed by **Julie Scali**

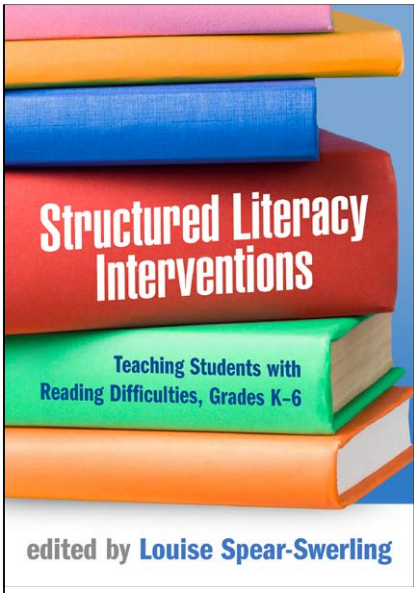
Spear-Swerling, L. (2022). Structured Literacy Interventions: Teaching students with reading difficulties, Grades K-6. The Guildford Press: New York.

In Structured Literacy Interventions, Louise Spear-Swerling brings together an excellent overview of how practitioners can utilise structured literacy for primary-aged students experiencing literacy difficulties. Her book culminates the work of a range of experts that takes practitioners through each of the elements of teaching-structured literacy, with step-by-step lessons, suggested sequences, resources and student case studies, while viewing reading, spelling and writing through a componential lens.

In Chapter 1, Spear-Swerling introduces 'Structured literacy and poor reader profiles'. She outlines the features of Structured Literacy as well as the three reading difficulty profiles. Spear-Swerling explains that Structured Literacy is an umbrella term that encapsulates a variety of evidence-informed intervention methods and associated instructional approaches, rather than a particular program or method. She highlights the content and key features of Structured Literacy identified in the table below.

Spear-Swerling then outlines the three common reading difficulty profiles. These include Specific Word Recognition Difficulties (SWRD), problems that are based on word reading; Specific Reading Comprehension Difficulties (SRCD), problems that are based around language comprehension; and the third profile, Mixed Reading Difficulties (MRD), problems with both word reading and language comprehension.

Structured Literacy content	Structured Literacy features
• Phonemic awareness, knowledge of individual phonemes in spoken words and the ability to manipulate these sounds • Phonics, knowledge of grapheme-phoneme correspondences in English and the ability to apply these skills to decode unfamiliar words • Orthography and knowledge about common English spelling patterns • Morphology • Syntax • Semantics (p2-3)	• Explicit teaching • Systematic teaching • Attention to prerequisite skills • Targeted, unambiguous, prompt feedback • Planned, purposeful choices of examples, tasks, and texts • Synthetic phonics approach at grapheme-phoneme level for initial phonics and spelling instruction • Consistent application of skills and teaching for transfer • Data-based decision-making



Students with a Specific Word Recognition Difficulty profile (SWRD) may exhibit difficulties in phonemic awareness, phonics, decoding of

Reading difficulty profiles are a starting point for determining a plan of action for intervention.

unknown words and fluency specifically related to word recognition deficits. As these skills are also related to spelling, weaknesses in spelling are often present. This reading difficulty profile may be a result of an inherent specific learning disorder such as dyslexia, or the result of inadequate classroom instruction.

A student with the Word Reading Comprehension Difficulty profile (WRCD) exhibits difficulties in language comprehension which may be a result of poor vocabulary, lack of

background knowledge, difficulties in understanding syntax or story structure. A student with this profile may have an underlying language disorder, high-functioning autism, limited exposure to English, or their difficulties may stem from inadequate classroom reading instruction. A student with a Mixed Reading Difficulty profile (MRD) experiences difficulties in both word recognition and language comprehension.

Structured Literacy is an umbrella term that encapsulates a variety of evidence-informed intervention methods and associated instructional approaches, rather than a particular program or method.

The prevalence of reading difficulty profiles is also discussed, which varies across different research studies. In a mostly middle-class sample, Leach and colleagues (2003) found that SWRD and MRD were more prevalent than SRCD, however in students identified as poor readers in Years 4 and 5, about a third of students displayed SWRD. Catts and colleagues (2012) also found that students whose difficulties manifested from Year 3 onwards, were heterogenous in profile with 36% of students having a profile of SWRD, 52% SRCD, and 12% MRD. In contrast, Leasaux & Keiffer (2010) found virtually no students with SWRD. Spear-Swerling explains that determining a student's reading difficulty profile provides a starting point for determining a plan for intervention, and from there, it is important to assess each student's specific weaknesses within that profile. She cites, 'Because individual children may manifest any of the three profiles, appropriate assessment of component reading and language skills is essential".

In Chapter 2, Otaiba, Ator and Stewart unpack 'Structured literacy interventions for phonemic awareness and basic word recognition skills'. In Chapter 3, Kearns, Lyon and Kelley explore 'Structured literacy interventions for reading long words' which dives into the explicit teaching of syllabification and morphology. It includes specific case studies, lists of frequent affixes and root words, and breaks morphology interventions into a series of strategies.

In Chapter 4, Louisa Moats investigates 'Structured literacy interventions for spelling'. This chapter also includes a case study, progression of spelling development, how and what to teach, orthographic change rules, lists of multisyllabic words and 'schwas', an abbreviated scope and sequence for teaching spelling in Years 1-6, and practices to avoid.

Chapter 5 is entitled 'Structured literacy interventions for reading fluency' by Hudson et. al.

This chapter examines the elements and assessments of fluency, as well as specific interventions, including phrase-cued reading, which supports students experiencing difficulties with prosody. For each intervention, the authors outline the steps under the headings 'Students will..' and 'Teacher will…' The authors also explain why Round Robin Reading is an ineffective approach and should be avoided.

Chapter 6 is entitled 'Structured literacy interventions for vocabulary' by Coyne and Loftus-Rattan. Chapter 7 outlines 'Structured literacy interventions for oral language comprehension' and is authored by Zipoli and Merritt. Chapter 8 is entitled 'Structured reading comprehension for students with reading difficulties' and is authored by Stevens and Austin. This chapter includes resources for the classroom including a 'Get the gist log' and 'Question log' for recording the question, answer and text evidence. Chapter 9 is entitled 'SL interventions for written expression' and is authored by Lambrecht Smith and Winthrop Haynes.

Finally, chapter 10 authored by Spear-Swerling herself, is entitled 'Multicomponent structured literacy interventions for mixed reading difficulties', and begins with a case study of a teacher with several students with a MRD profile. Spear-Swerling outlines an example of a multicomponent intervention plan for the identified students with a MRD profile, as well as an example lesson plan.

The intended audience for this book is practitioners who teach struggling students in Kindergarten (Foundation in Australia) to Year 6. At the end of each chapter is a summary and opportunity to apply new knowledge learnt. It is an excellent text that not only has the potential to fine-tune educators' understanding of specific reading difficulties, but also to be a practical reference to guide practitioners in how to use structured literacy interventions to support students with a wide range of needs. It is especially pertinent to the work of educators in literacy and learning support, in both school and private practice settings. A highly recommended text for all primary school educators.

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Researchers	Prominence of reading difficulty profiles
Leach and colleagues (2003)	SWRD and MRD were more prevalent than SRCD Of the students identified as having reading difficulties in Years 4 and 5: A third displayed SWRD
Catts and colleagues (2012)	Students whose difficulties manifested from Year 3 onwards: 36% SWRD 52% SRCD 12% MRD
Lesaux & Keiffer (2010)	Found virtually no students with SWRD

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