



LEARNING DIFFICULTIES AUSTRALIA

2023 RTI Conference Handouts

Saturday 28th Oct

and

Sunday 29th Oct

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2023 RTI Conference Handouts

Sunday 29th Oct

Session 3 - Universal Screening with Dibels

by Julie Scali

Thanking all our Gold Sponsors...



Learning Difficulties Australia

Learning Difficulties Australia is an association of teachers and other professionals dedicated to assisting students with learning difficulties through effective teaching practices based on scientific research.



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1

The fundamentals of Response to Intervention

October 28th, 2023
Julie Scali

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Julie Scali

- Director of Literacy Impact, Perth WA
- Bachelor of Arts, Pmy, Grad Cert LD
- Primary teaching background- Perth; London and Belfast- 24 years in total
- Learning difficulties support Teacher- SSEND, DoE, WA
- Deputy Principal for 8 years- leading literacy improvement
- Started Literacy Impact in 2021- consulting in schools; online masterclasses, professional learning for schools, coaching
- Learning Difficulties Australia Bulletin- Editor
- Author of *High Impact Reading Instruction and intervention in the Primary Years*



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Acknowledgement of Country

I would like to acknowledge that this meeting is being held on the traditional lands of the Whadjuk-Noongar people. We acknowledge them as the traditional custodians of this land and pay our respects to the elders both past, present and future for they hold the memories, the traditions, the culture and hopes of Aboriginal Australia.



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Session outline:

- Essential components of RTI and why is it essential in every school
- Universal screening
- How to implement progress monitoring for students at risk
- Recommendations for Tier 1, Tier 2 and Tier 3 instruction and intervention
- Overcoming some of the challenges of RTI implementation
- Sharing progress monitoring data with parents and other stakeholders



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What is Response to Intervention (RTI)

- A model that grew out of disease prevention in the public health sector and then also in special education settings
- Schoolwide model for effective instruction and intervention
- System that contributes to the process of being able to identify learning disorders such as dyslexia, dysgraphia.
- RTI was a response to the inadequacy of the IQ discrepancy model of identifying students with additional learning needs.
- A multitiered system of support (MTSS)



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The key features of RTI

Research based core literacy instruction (whole class)

Universal screening- schoolwide

Prompt intervention for at-risk students

The use of data to inform instruction- individuals and system wide

SYSTEMIC approach (schoolwide) to instruction, intervention and data collection

(Spear-Swerling, 2015, p204)



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Why RTI?

- Has the potential to **radically improve** instruction and intervention for large numbers of students (Spear-Swerling, 2015)
- It is both **preventive** and **responsive** to all students learning needs
- **Instruction**-Tiers 1, 2 and 3, depending on severity of need. Improving instruction for students who are falling behind.
- **Identification**- of learning disability, in terms of a discrepancy model. A child that is struggling with learning- despite a normal IQ that has had exposure to high quality, evidence-based instruction, and intervention (6 months+). Case by case basis
- It works! **Effect size of 1.07** (Hattie & Zierer, 2017 in 2018, p7)

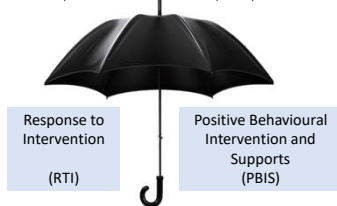


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MTSS as an umbrella term

"A growing consensus considers MTSS an umbrella term that includes RTI, which focuses mainly but not entirely of academics, and Positive Behavioral Interventions and Supports (PBIS), which focuses on behavior problems."

(Hallahan in Pullen & Kennedy, 2019)



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RTI can also applied with behaviour

Clearly defined schoolwide behavioural expectations that are taught to all students at least once a year and a school-wide discipline plan that defines procedures for regular acknowledgment of appropriate behaviour and consistently applied consequences for inappropriate behaviour (Sugai & Horner, 2002).

Additional support programs and intervention for Tier 2 behavioural interventions about 15% of a school's population that support students with behavioural difficulties

Tier 3 behavioural interventions for individual students that frequently involve behaviour support plans (BSPs) based on functional assessment data (Crone & Horner, 2003; O'Neill et al., 1997; Sugai, Lewis-Palmer, & Hagan, 1998; Umbreit, Lane, Ferrero, & Liaupsin, 2006 in Hawken et al. 2008)



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'Well functioning' MTSS and RTI systems are the same

"Well functioning RTI/MTSS systems are based on school-wide, multi level instructional and behavioural programming for **preventing school failure** based on **evidence-based** instructional and behavioural interventions. The **likelihood of student success** in RTI/MTSS is **increased** if such systems are grounded in **evidence-based practices**."

(Yell, in Pullen and Kennedy, 2019, p37)

"RTI/MTSS models focus on **prevention** and **early intervention**" (Reinke et al in Pullen & Kennedy, 2019, p100)



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The leaky bucket analogy

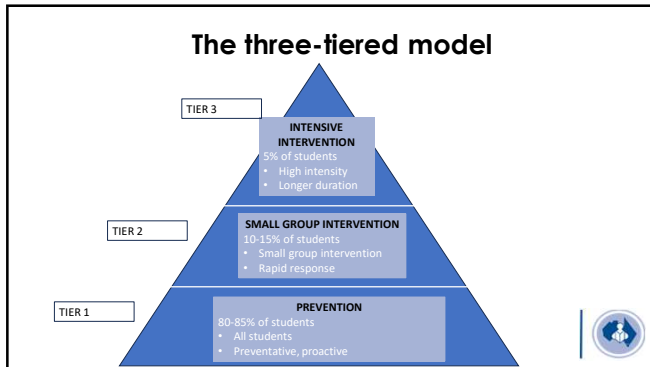
"Researchers now estimate that 95% of all children can be taught to read by the end of first grade"

Dr Louisa Moats (2010)

Without it, we will always have a leaky bucket effect.



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Fundamental #1
Tier 1 instruction must be high quality and evidence based

- When tier 1 instruction is high quality with high rigour differentiation then 80% of student needs are met
- High quality means- explicit instruction and structured approaches for literacy and numeracy
- Based on the science of learning- cognisant of CLT
- Literacy- systematic, PA and phonics instruction, daily high- quality teacher read aloud and explicit teaching of the big 5 with strong oral language focus
- Numeracy-explicit teaching, using worked examples

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How does instruction look in each tier?

Tier 1 – Whole class	Tier 2- 15% of students	Tier 3- 5% of students
<ul style="list-style-type: none"> • Daily, high quality, evidence based explicit teaching for the whole class • High rigour differentiation in terms of support- pull aside groups • High expectations for every student • Use of formative assessment, adjusting instruction to student needs • Rigorous checking for understanding • Explicit instruction of new knowledge and skills 	<ul style="list-style-type: none"> • Small group intervention in addition to the Literacy Block (3-5 students) • Increased intensity and frequency (3-5 x 30 mins per week) • Intervention is aligned to specific subskills of reading identified • Clear, short-term targets and progress monitoring • Frequent progress monitoring (every 2-5 weeks) • Aim is to catch these students up and close the reading gap 	<ul style="list-style-type: none"> • 1:1 intervention • Clear plan with specific targets • Often will involve a case management approach with school psychologist and will investigate underlying learning disabilities • Longer duration of intervention/support • Frequent progress monitoring (every 1-2 weeks)

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Slide 14

GU0 Can I suggest bullet point 1 is rephrased as: "When instruction at the tier 1 level is of high quality, rigorous, and differentiated, it meets the needs of 80% of students."

Guest User, 2023-10-10T09:19:32.729

Slide 15


GU0 Could you mention that Tier 2 could be 30 minutes 3-5 times a week instead of 3. I can't tell you how many schools I have spoken to who cut back the Tier 2 intervention to 3 times a week instead of 5. Or could it have added, the frequency would depend on the data.

Hope this makes sense!

Guest User, 2023-10-10T09:29:49.708

GU0 0 from J

Guest User, 2023-10-10T09:31:06.369



How long should Tier 2 intervention last?

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." Grafton, 2023

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Fundamental # 2


Intervention must be prompt & evidence-based

- "The National Institute of Child Health and Human Development reports that **it takes four times as much assistance** to improve a child's reading skills if help is delayed until Year Four than if it is begun in the Prep year." (Pfeiffer, S., Davis, R., Kellog, E., Hern, C., McLaughlin, T.F., & Curry, G. 2001, p. 4)
- Intervention must be based on sound evidence or be evidence informed
- Must have an end date- antibiotics analogy
- Do not need an IEP for every student
- Universal screening is how we identify students at risk- next slide

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What is the impact of my teaching?

"Too often there is an overemphasis on the teaching or interventions, even when adoption of these interventions is not related to what students know or do not know, and too often, the same intervention or teaching method is reproduced and students are blamed for not attending, not being motivated, or not being smart. Instead, if students do not learn the first time, a change in the method of teaching is more likely to move these students forward" (Hattie & Zierer, 2018, p.7)



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Fundamental # 3

Evidence based universal screening

three times per year

- Universal screening is like a blood pressure check
- Literacy- eg. Dibels 1 min ORF, CUBED (oral language F-3)
- Numeracy- eg. Westwood One Minute Number Test, SENA (NSW), Acadience Maths
- To screen all students F-6 and identify risk and track schoolwide trends

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Universal Screening for Prevention

- Whole school process for assessing every K-6 student 2-3 times, yearly
- Assesses a snap-shot of aspects of the specific reading subskills (not levels!)
- Provides whole school data of patterns, trends, focus areas for PL
- Identifies reading difficulties early and tracks student progress

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Speech and language screening in K/P

Phonemic Awareness screener PP

Phonics/decoding screener Year 1, 2

Oral reading fluency rate (ORF) Year 2-6

Language and Reading comprehension assessment P-6

Suggested Universal Screening for Reading

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Fundamental #4 Rigorous decision making based on the universal screening

- Identify the percentage of students in each band- is there a tier 1 issue?
- Identify the students in yellow and red
- Identify the needs of the students in yellow and red
- Set appropriate intervention for students in yellow and red- intervention can be evidence based or evidence-informed.
- Set appropriate targets for the students (desirable)



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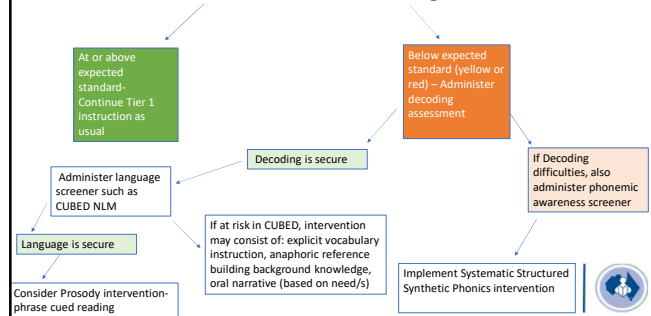
What intervention is required?

Simple View of Reading:
Decoding x Language Comprehension = Reading Comprehension
Gough & Tunmer, 1986



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ORF Decision Making Tree



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Fundamental #5

Rigorous Progress Monitoring

- Students identified in red-every 2 weeks
- Students identified in yellow-every 4 weeks
- Utilise Education Assistants to support this practice
- Monitor the data at a class and school wide level

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Progress Monitoring

- Brief, one minute check in assessments to ensure students at risk are making accelerated progress to catch up to peers eg Dibels (fluency)/CUBED (language)
- Progress monitoring- using standardised passages (1 minute) every 2 (students in red) or 4 weeks (students in yellow)
- Use of a line graph shows growth/track progress

<https://meadowcenter.org/resource/progress-monitoring-line-graph/>

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Use of Dibels Progress Monitoring Materials

BELS 8th
(BELLIS) Progress Monitoring - Grade 3
ORF Scoring Booklet

Student Name: _____ ID: _____
 School Year: _____
 Class: _____

Month	1	2	3	4	5	6	7	8	9	10
Current Date										
1st Score										
2nd Score										
3rd Score										
4th Score										
5th Score										
6th Score										
7th Score										
8th Score										
9th Score										
10th Score										

Progress Monitoring Materials

Scoring booklets and student materials by grade for progress monitoring assessment.

Tip: We recommend opening the materials in the latest versions of Adobe Acrobat or [Adobe Reader](#).

- Grade K:** [\(K\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 1:** [\(1\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 2:** [\(2\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 3:** [\(3\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 4:** [\(4\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 5:** [\(5\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 6:** [\(6\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)
- Grade 7:** [\(7\) Student Progress Monitoring Materials & Scoring Booklets \(R\)](#)


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Progress Monitoring- Goal Setting and Choral Reading

By Week 8, Term 3, 2023, these students will be able to read a Year 3 level Dibels benchmark passage with an ORF of 100 Words Correct Per Minute (WCPM).

We will achieve this through:


Example SMART target- for a student with an ORF of 80 WCPM



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Fundamental # 5 School-wide approach to instruction, intervention and data collection


- Build assessment weeks and progress monitoring into the year planner- each term – system wide, monitored at classroom and school level- same for data collation
- Incorporate an Intervention Fidelity Checklist- to ensure fidelity to the plan, timings, procedure, progress monitoring (Reinke et. al, in Pullen & Kennedy, 2019, p.93)
- Build in accountability measures into tier 1 literacy instruction- peer observations, leadership observations, coaching model
- School wide ongoing evidence based professional learning- teachers need to be highly skilled to deliver whole class instruction
- An emphasis on systems is essential to ensure literacy education is maximally effective and that at-risk students are not overlooked (Spear-Swerling, 2015, p7)



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Fundamental # 5 School-wide approach to: literacy and numeracy, intervention, managing behaviour and data collection

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Progress Monitoring Schedule

Term 1	Term 2	Term 3	Term 4
Universal screening- Week 2 (BOY)	Week 2 (red)	Week 2 (red)	Week 2 (red)
Week 4 (red)	Week 4 (red and yellow)	Week 4 (red and yellow)	Week 4 (red and yellow)
Week 6 (red and yellow)	Week 6 (red)	Week 6 (red)	Week 6 (red)
Week 8 (red)	Universal screening- Week 7 (MOY)	Week 8 (red and yellow)	Universal screening- Week 7 (MOY)
Week 10 (red and yellow)	Week 8 (red and yellow)	Week 10 (red)	Week 8 (red and yellow)
	Week 10 (red)		Week 10 (red)

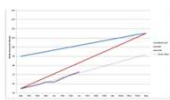


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Sharing Progress Monitoring Data with Parents

A basic progress monitoring graph conveys a lot of information that parents want to know about their child:

- What is my child's current skill level?
- How different is my child's performance from expected standard?
- What is the goal for my child?
- When do we expect to achieve this goal?
- Is my child making adequate progress towards the goal?
- What can I do to support my child in achieving this goal?




<https://www.doe.mass.edu/assessment/progress-monitoring-line-graph/>

(Adapted from Acadience Assessment Manual)



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Episode 10: Myths and misconceptions about universal screening with Nancy Nelson


Dr. Nancy Nelson, research assistant professor at the Center on Teaching and Learning at the University of Oregon, discusses myths and misconceptions around RTI, Multi-Tiered Systems of Supports (MTSS), and universal screening in reading instruction.

Podcasts

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Overcoming some of the challenges

1. When to do the intervention
2. The number of students needing intervention
3. When to do the analysis of data
4. Make the time for the students needing Tier 3 intervention- if you don't, the issue will get bigger and the time and cost will only increase with time (not to mention the social and emotional toll on the students)
5. For RTI to be effective teachers need to be highly skilled in whole class literacy (and numeracy instruction).




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To finish: The need for RTI in every school..

"Without RTI practices, educators may overlook many children's reading difficulties, fail to address them properly, or even inadvertently exacerbate them by faulty instruction" (Louise Spear-Swerling, 2015)

"Learning difficulties are everyone's business" (Robyn Wheldall, 2023)



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**Thank you for joining me and
enjoy the conference!**



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References

- Muller, Y. (Host) (n.d.). 5 misconceptions about RTI. Cohen-Gazit, K. Season 1, Episode 44: [Audiovisual podcast episode], *Why Knowledge Matters: The Podcast*. <https://www.youtube.com/watch?v=hNhl1ao-5U>
- Acadience Maths: <https://acadiencelearning.org/acadience-math/k-grade6/>
- Good, RH, III, Kaminski, RA, Cummings, K, Dufour-Martel, C, Petersen, K, Powell-Smith, K, Stollar, S, & Wallin, J (2011). *Acadience Reading Assessment Manual*. Dynamic Measurement Group
- Gough, PB, & Tunmer, WE (1986). "Decoding, Reading, and Reading Disability," *Remedial and Special Education*, 7, 6-10
- Hattie, J., & Zierer, K (2018). *10 Mindframes for Visible Learning*. Routledge: Oxon
- Hasbrouck, J., & Lindal, G (2017). "An Update to Complex ORF Norms." [Technical Report No. 1702] Eugene, OR: Behavioral Research and Teaching, University of Oregon
- Hawken, S. L., Vincent, C.G., Schumann, J. (2008). Response to Intervention for Social Behavior: Challenges and Opportunities. *Journal of Emotional and Behavioral Disorders* 16 (4) 213-225
- Lambert, S (Host) (n.d.). Myths and misconceptions about universal screening with Nancy Nelson. Season 1, Episode 10: [Audio podcast episode], *Science of Reading: The Podcast, Amplify*. <https://amplify.com/episode/science-of-reading-the-podcast/season-1/episode-10-myths-and-misconceptions-about-universal-screening-with-nancy-nelson/>
- Language Dynamics Group. CUBED NLM. <https://www.languagedynamicsgroup.com/cubed/cubed-nlm/>
- Madeline, A. & Wheldall, K. (2019). What is Response to Intervention? Nomanis Notes. MULTITUT: NSW



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References

- Meadows Center: Progress Monitoring Line graph. <https://meadowscenter.org/resource/progress-monitoring-line-graph/>
- Pfeiffer, S., Davis, R., Kellog, E., Hem, C., McLaughlin, T.F., & Curry, G. (2001). The effect of the Davis Learning Strategies on First Grade word recognition and subsequent special education referrals. *Reading Improvement*, 38(2), 1-19.
- Pullen, P.C. & Kennedy, M.J. (2019). *Handbook of Response to Intervention and Multi-tiered systems of support*. Routledge: New York.
- Spear-Swerling, L. (2015). *The Power of RTI and Reading Profiles: A Blueprint for Solving Reading Problems*. Paul H. Brookes Publishing: Baltimore, MD
- University of Oregon, Center on Teaching & Learning (2019-2020). *DIBELS® 8th Edition: Dynamic Indicators of Basic Early Literacy Skills Technical Manual Supplement*. Eugene, OR
- Westwood, P. One minute basic number facts test.



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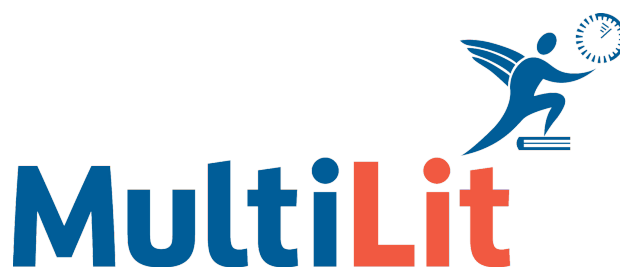
2023 RTI Conference Handouts

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**Session 2 - Unlocking Effective
Implementation**

by Karina Stocker

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1

Karina Stocker


PhD Candidate, Monash University
Understanding the implementation of learning sciences within a multi-tiered system of support: Exploring the 'why', 'what', and 'how' of effective reading instruction in Australian schools




School Leader and Instructional Coach (MTSS)
Docklands Primary School

Education Consultant
Integrated MTSS – Literacy, effective instruction and behaviour support

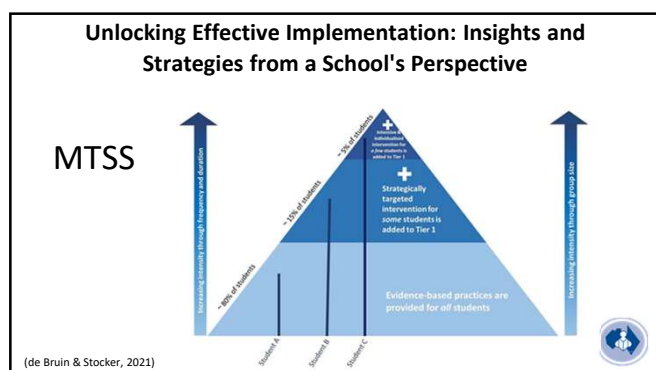
Bio: Primary trained; 20 years experience in education; worked as a classroom teacher, interventionist (literacy and behaviour), instructional coach, school leader and educational consultant.

I have an unwavering commitment to the provision of equitable, evidence-based education for ALL students underpinned by my core values of social justice, equity, integrity, curiosity, and inclusion.



2



3

Why MTSS?

- ✓ Academic skills and behaviour are inter-connected
- ✓ Allows for accurate identification of the most appropriate supports
- ✓ Leverage consistent structures, practices and minimise competing priorities
- ✓ It's all learning! Behaviour is a curriculum, too!
- ✓ Effective instructional practices supports improved learning and behaviour
- ✓ Creates optimal conditions for learning to take place



4

What

Evidence-informed curriculum, programs and resources

How

Evidence-informed instructional practices

When

High quality assessments and data-based decisions

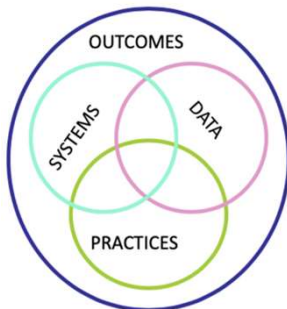
Environment

Proactive, evidence-informed behaviour support practices



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

MTSS



6

What - Evidence-informed curriculum, programs and resources


- ✓Oral language
- ✓Phonemic awareness
- ✓Phonics
- ✓Reading fluency
- ✓Comprehension
- ✓Building of background knowledge
- ✓Vocabulary knowledge

7


How - Evidence-informed instructional practices

- ✓ Explicit and direct instruction
- ✓ OTRs/Active participation
- ✓ Error correction procedures
- ✓ Visual prompts
- ✓ Prompt fading
- ✓ Modelling
- ✓ Checks for Understanding
- ✓ Backwards and forward chaining
- ✓ Daily review
- ✓ Self-monitoring
- ✓ Task analysis to support systematic instruction
- ✓ High praise to correction ratios
- ✓ Instructional routines
- ✓ Reinforcement – closing the loop!
- ✓ Manipulating stimuli
- ✓ Multiple exemplars and worked examples
- ✓ Cue the response
- ✓ Narrate your thinking




8

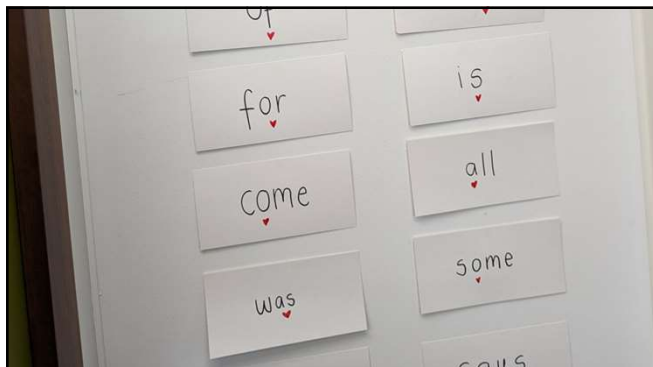
Vocabulary



The mouse is on a mission to _____.



9



10

Naomi Gets Lost

Written Response:
Read the story and write a paragraph about what you think happened next. Use the words on the cards to help you.

WRITTEN RE TELL - 30 mins (later in the day)

The first half of the story has already been written. Let's read the story, then finish writing it together.

Story Champs: Naomi Gets Lost

DISCUSSION: Complete the writer's task in your workbook. Use the checklist to make sure you have included all the parts of the story.

On Saturday, Naomi was happily shopping at the **mall** with her **lovely** grandma. Naomi was **absolutely** looking at toys and her grandma was **carefully** looking at her. Naomi was **very** **scared** because she realised she was lost. She sat on a nearby bench and patiently waited for her grandma. When Naomi's **worried** grandma walked by, Naomi shouted "Grandma, I'm waiting right here!" Her grandma gave her a big hug. Naomi was **relieved**. She securely stayed next to her grandma because she didn't want to get lost again.

11

How - Evidence-informed instructional practices

- | | |
|-----------------------------------|---|
| ✓ Explicit and direct instruction | ✓ Task analysis to support systematic instruction |
| ✓ OTRs/Active participation | ✓ High praise to correction ratios |
| ✓ Error correction procedures | ✓ Instructional routines |
| ✓ Visual prompts | ✓ Reinforcement – Closing the Loop! |
| ✓ Prompt fading | ✓ Manipulating stimuli |
| ✓ Modelling | ✓ Multiple exemplars and worked examples |
| ✓ Checks for Understanding | ✓ Cue the response |
| ✓ Backwards and forward chaining | ✓ Narrate your thinking |
| ✓ Daily review | |
| ✓ Self-monitoring | |



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When - High quality, evidence-based assessments and data-based decisions

- ✓Universal Screening
- ✓Progress monitoring
- ✓Formative assessment
- ✓Summative Assessment
- ✓Team-based problem solving and decision making
- ✓Coaching data



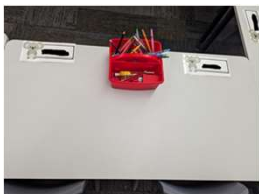
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Environment - Proactive, evidence-informed behaviour support practices

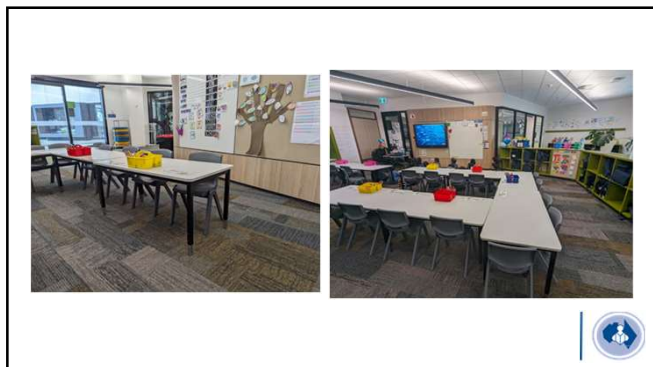
- | | |
|---|---|
| ✓Seating plans | ✓Clear, consistent visual and verbal cues |
| ✓Strategically arranged furniture, displays and resources | ✓Positive framing |
| ✓Pre-corrections | ✓Structured, cluttered free classroom environment |
| ✓Consistent classroom rules | ✓Consistent fluent classroom routines |
| ✓Consistent fluent instructional routines | |



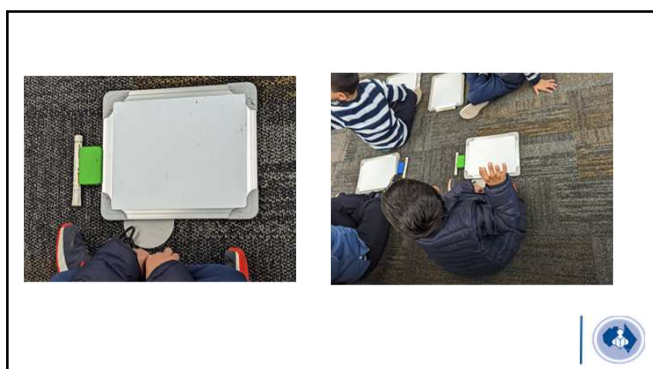
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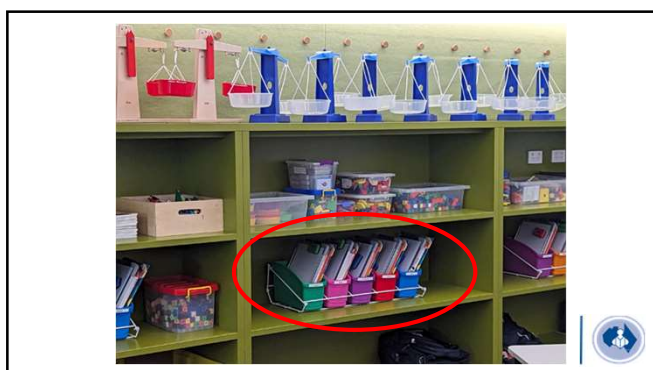
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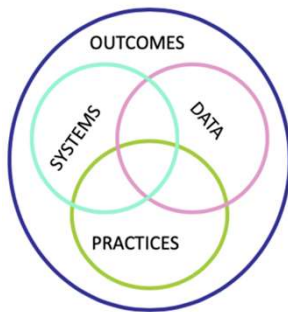
Environment - Proactive, evidence-informed behaviour support practices

- ✓ Seating plans
- ✓ Strategically arranged furniture and resources
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- ✓ Consistent fluent instructional routines
- ✓ Clear, consistent visual and verbal cues
- ✓ Positive framing
- ✓ Structured, cluttered free classroom environment
- ✓ Consistent fluent classroom routines



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MTSS



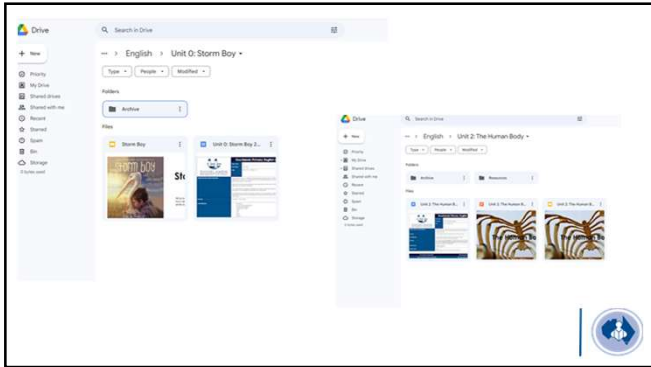
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Systems for Planning

- ✓ Centralised planning
- ✓ Consistency in planning documentation



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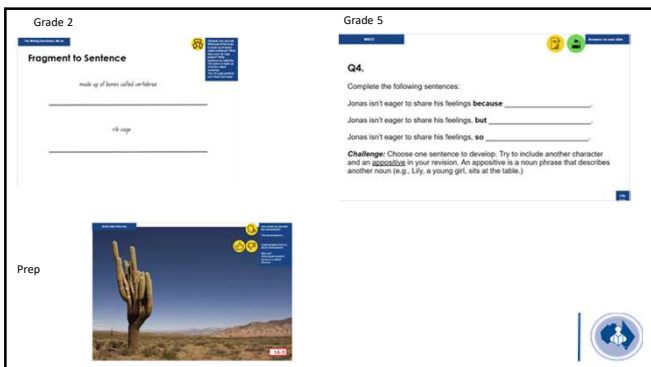


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Systems for Planning

- ✓Centralised planning
- ✓Consistency in planning documentation
- ✓Consistent instructional models
- ✓Consistent slide decks

23



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Systems for Planning

- ✓Centralised planning
- ✓Consistency in planning documentation
- ✓Consistent instructional models
- ✓Consistent slide decks
- ✓Consistent terminology, scripts, verbal cues and visual cues
- ✓Consistent icons



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OTR/CFU Icons



26

Systems for Planning

- ✓Centralised planning
- ✓Consistency in planning documentation
- ✓Consistent slide decks
- ✓Consistent instructional models
- ✓Consistent terminology, scripts, verbal cues and visual cues
- ✓Consistent icons
- ✓Scope and sequence
- ✓Use evidence-informed programs



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Systems for Professional Learning

- ✓ Prioritise professional learning
- ✓ Codify school-wide instructional practices



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Systems for Professional Learning

- ✓ Prioritise professional learning
- ✓ Codify school-wide instructional practices
- ✓ Different models of professional learning
 - ✓ Workshops
 - ✓ External training
 - ✓ Peer observation
 - ✓ We film and review instructional practice



30

[illegible]

Part 1a | Tier 1 Proactive Strategies

1.1 Setting up the classroom

- Strategy in a sentence: Teachers strategically arrange the classroom environment to promote appropriate behavior (video link)

What's the point?

The way the classroom is structured influences student behavior.

What you do:

- Minimize distraction on the walls**
 - Keep wall displays to a minimum
 - Place individualized displays at the front (e.g., only what prompts students for academic or behavioral responses)
 - Position seasonal displays at the side
 - Ensure visual schedules are clear and up to date
- Arrange tables and chairs**
 - Use a seating plan to seat students in rows or columns for individual or pair work
 - Ensure students can easily turn their chairs to make small groups for group tasks
 - Seat students in an area where walking is not safe
 - Use colored dot calculated spots for students in Years 1 - 2
 - Rotate your seating plans (rows and desks once a term at minimum) so that students can interact with different peers throughout the year
- Minimize student crowding for transitions**
 - Leave space for assemblies or that you can movement easily
 - Remove excess furniture and clutter
 - Use colored tape to indicate the path students should take
 - Review layouts regularly and change them when needed to support behavior
- Organize materials and resources**
 - Use consistent places to store containers, classroom resources, books, etc.

1.5 Opportunities to Respond (OTR)

- Strategy in a sentence: Keeping interactive instruction and fast-paced with lots of opportunities for ALL students to respond

What's the point?

High rates of OTR, and using a brief pause during instruction, has been shown to increase student academic engagement. When students are not engaged in instruction, they are more likely to demonstrate off-task or disruptive classroom behaviors.

What to do:

- This includes 15 OTRs per minute of instruction. This can include:
 - Call out for individual student responses
 - Group share responses
 - Turn and talk
 - Non-verbal responses (thumbs up, hand signals, etc.)
 - Thumbs up (thumbs down for yes/no, thumbs up/down for right/wrong)
 - Show fingers for multiple choice questions (one finger if D is correct and 3 fingers if C is correct, etc.)
- If a student does not know the answer, allow some think time or time for them to hear another student's response, then return to that student with the same question. This gives the student another opportunity to respond correctly.
- Play considerations:
 - As part of incorporating effective OTR practices into your classroom, ensure the OTR minutes are taught to fluently (i.e., without a teacher, turn and talk minutes, etc.)

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Systems for Coaching

An instructional coaching cycle

Typically, a coaching cycle will include 6 - 8 observations, and will involve the following phases:

1. Select focus	The coach observes lesson implementation, to get a sense of the teacher's classroom practice and to provide inputs for possible focuses.
2. Set approach	Together, the coach and teacher discuss the kind of coaching approach they will engage with. (Read more below.)
3. Plan	The coach works with the teacher to establish a clear instructional focus that is manageable, incremental and valued by the teacher.
4. Observe	The coach observes the teacher in short bursts (e.g. 15 - 20 minutes, ideally weekly).
5. Review	The coach and teacher come together (20 - 30 minutes) to review the observation and to set future goals. The coach documents the process.

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MTSS

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What	Evidence-informed curriculum, programs and resources
How	Evidence-informed instructional practices
When	High quality assessments and data-based decisions
Environment	Proactive, evidence-informed behaviour support practices



37

Recommended Resources and Books

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Saturday 28th Oct

Session 3 - The Magic is in the Instruction


by Dr Anita Archer



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1


Anita L. Archer Ph.D.

Author – Consultant- Teacher

BIO

Dr. Anita Archer serves as an educational consultant to state departments and school districts on explicit instruction and literacy. She has presented in all 50 states, all US territories, and many countries including Australia (Queensland) and Canada and is the recipient of ten awards honoring her contributions to education.

Dr. Archer has served on the faculties of three universities including University of Washington, University of Oregon, and San Diego State University. She has co-authored numerous curriculum materials including *Phonics for Reading* (Curriculum Associates), a three-level intervention program, *REWARDS* (Voyager/Sopris), a five-component literacy intervention program, and a best-selling textbook titled *Explicit Instruction: Effective and Efficient Teaching* (Guilford Publications).



2

Learning Difficulties Australia

Conference 2023: **Best Practices using RTI Framework**

Session: **The Magic is in the Instruction**
The Learning is in the Instruction

3



4

Active Participation during Virtual Keynote

- Best Practices
- Short Choral Responses – muted
- Choral Reading - muted
- Written Responses – Paper or Chat Box
- Questions - Chat Box
- Best practices - Take-Aways – Chat Box

5

5

The Magic is in the Instruction (goals)
The Learning is in the Instruction

Affirm

Remind

Polish

Expand

6

6

Universal Outcome for All

Learning
 Learning
 Learning
 Learning
 Learning
 Learning

7

7

Universal Outcome

Teaching → Learning
 Teaching → Learning
 Teaching → Learning
 Teaching → Learning
 Teaching → Learning
 Teaching → Learning

8

8

“When you’re working on something that’s so critical to a life—to a child’s life—belief systems don’t cut it. Evidence cuts it.” —Dr. Reid Lyon

September 28, 2023

9

What is Explicit Instruction?

- Explicit instruction is a **systematic instructional approach** that includes a set of **design and delivery procedures** derived from effective schools research.....

Ideas that Work

- ...**unambiguous** and **direct** approach to teaching that incorporates instruction design and delivery.

Archer & Hughes, 2011

10

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What is Explicit Instruction?

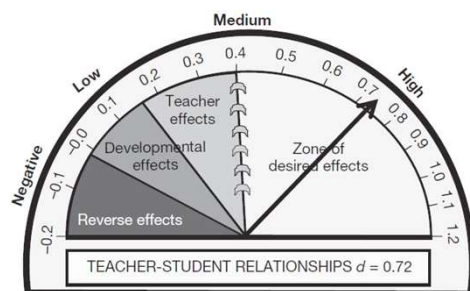
"Explicit teaching is not just the episode within a lesson when information is presented; it involves **chunking content** into small components, **guiding students' initial attempts** at working with that content and **gradually releasing control** into more open activities as students gain **mastery**. It is a teaching model that progresses from **'I do'** to **'we do'** to **'you do.'**

Adam Boxer, Editor 2019
Explicit & Direct Instruction

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John Hattie (2019)



12

12

Hattie, 2019 2023 Updated			
Variables Related to Explicit Instruction	<i>d</i>	Variables Related to Explicit Instruction	<i>d</i>
Explicit Teaching Procedures	.63	Scaffolding	.52
Direct Instruction	.56	Response to Intervention	.73
Mastery Learning	.67	Collective Teacher Efficacy	1.34
Goals	.60	Teacher-Student Relationships	.62
Clarity	.85	Teacher Credibility	1.09
Questioning	.49	Comparisons	
Classroom Discussions	.82	Whole Language	.06
Feedback	.51	Discovery-Based Teaching	.27
Deliberate Practice	.79	Student Control over Learning	.02
Rehearsal and Memorization	.65		
Spaced Practice	.65		
Retrieval Practice	.46		13

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When should Explicit Instruction be used?

Explicit Instruction should be used when:

- When students have little or no background knowledge
- When students are novices not experts
- When content is new
- When content requires specific order
- When students have experienced challenges learning skills and knowledge

*“There is **always** something that can be taught explicitly.”*
Sharon Vaughn, 2021

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High-Leverage Instructional Practices

As you watch this video,

List the **high-leverage practices** that you observe.

15

Writing Instruction Sentence Combining

16

16

High-Leverage Practices

The P's

- Prepared
- Positive
- Passionate
- Present
- Perky

17

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High-Leverage Practices

Design of Instruction

Used an **Instructional Routine** for the items.

1. Read the **start sentence**.
2. Read the **add sentence**.
3. Underline **what is added**.
4. Combine and write a **new sentence**.

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High-Leverage Practices

Design of Instruction

Gradual Release of Responsibility

(I do.) Modeling was provided in previous lessons. Modeling was been faded in Lesson 21.

We do. The students were guided step-by-step with heavy scaffolding on this item

We do. Guided practice continued with less scaffolding.

You do. Students were asked to complete this item independently.

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High-Leverage Practices

Delivery of Instruction

Provided many opportunities to respond.

- **Unison choral responses**
- **Individual responses** (Did not call on volunteers)
- **Structured Partner responses** (Read sentences to partners.)
- **Choral reading**
- **Silent reading**
- **Written responses** (Underline. Write Sentence.)
- **Actions** (Raise your hand if you had this sentence.)

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High-Leverage Practices

Delivery of Instruction

Monitored student responses.

- Listened carefully to choral responses.
- Listened carefully to choral reading.
- Monitored and circulated during written responses and partner responses.

21

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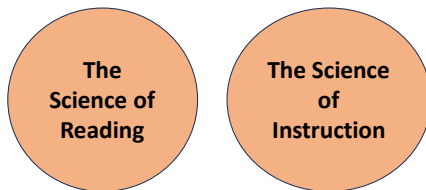
High-Leverage Practices

Delivery of Instruction

- **Provided feedback to students.**
 - Provided feedback to the **whole group**.
- When students wrote sentences and shared with partners, you circulated and monitored and gave feedback privately and quietly to **Individuals**.
 - P – Praise (Specific Praise)
 - E – Encourage
 - C – Correct

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Elements of Explicit Instruction

1. Focus on critical content to promote **LEARNING**.

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24

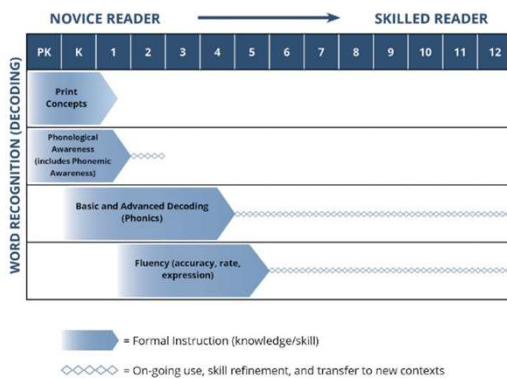
The Simple View of Reading



Graphics
St. Martin, K., Vaughn, S., Troia, G., Fien, & H., Coyne, M. (2020). *Intensifying literacy instruction: Essential practices*. Lansing, MI: MiMTSS Technical Assistance Center, Michigan Department of Education.

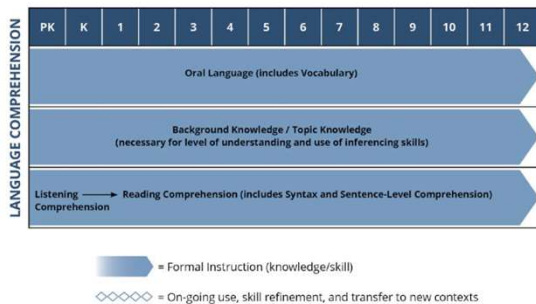
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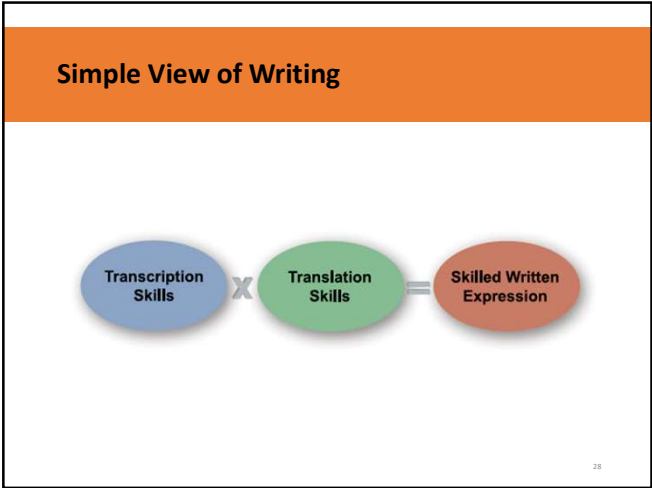
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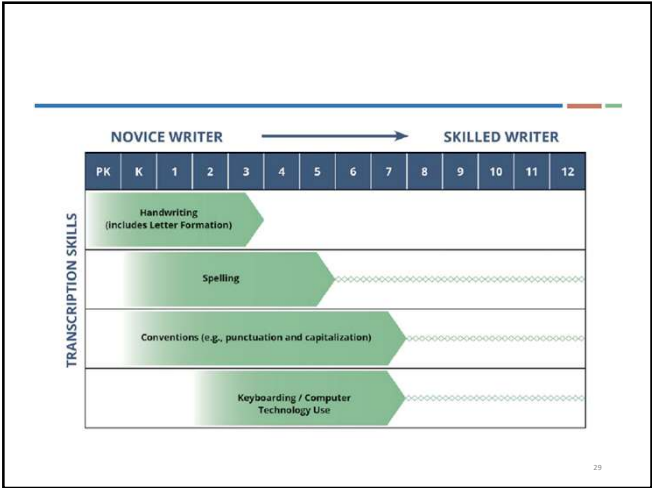
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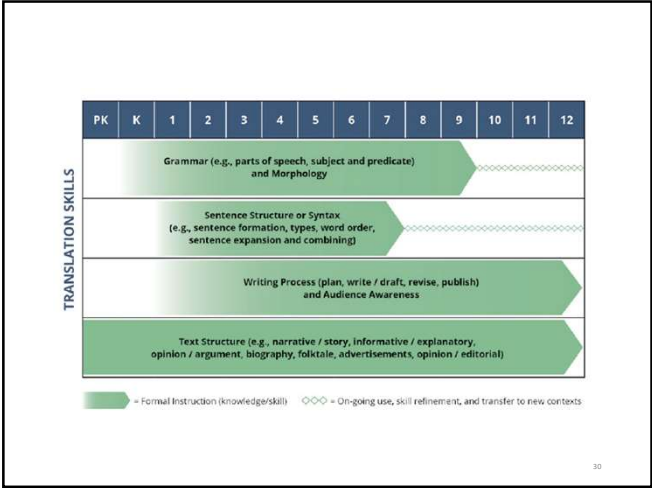


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27







1. Focus on critical content to promote **Learning.** (Research-Validated)

• **REWARDS - Overt Strategy**

- 1. Circle the prefixes.
- 2. Circle the suffixes.
- 3. Underline the vowels.
- 4. Say the parts of the word.
- 5. Say the whole word.
- 6. Make it a real word.

prevention

unproductive

masterfully

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1. Focus on critical content to promote **Learning.** (Research-Validated)

Getting the Gist

1. Name the who or what the paragraph is about in a brief phrase.
2. Identify two or three important details about the topic.
3. "Shrink" the paragraph by stating or writing the main idea. (Say it in 10 to 15 words)

(From Vaughn, et. al. Collaborative Strategic Reading)

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1. Focus on critical content to promote **LEARNING.**

Archerism:

Teach the stuff and cut the fluff.

33

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Elements of Explicit Instruction

2. Break down complex strategies into obtainable pieces to ensure **LEARNING**.

Be aware of cognitive overload.

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2. Break down complex strategies into obtainable pieces to ensure **LEARNING**.

Phonological Awareness Skills (Kilpatrick, 2019)

• Early

- rhyming
- alliteration
- segment words into syllables
- identify initial sound in word

• Basic

- blending sounds into words
- segmenting words into sounds

• Advanced

- manipulating phonemes
- deleting, adding, substituting

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2. Break down complex strategies into obtainable pieces to ensure **LEARNING**.

Example Sequence of Phoneme - Grapheme Associations

(IES Practice Guide – Foundational Skills to Support Reading for Understanding in Kindergarten Through 3rd Grade, 2016)

• Single consonant and vowel letters

a m t s i f d r o g l h u c b n k v e w j p y x q z (Carnine, Silbert, and Kame'enui, 1997)

• Consonant blends

bl cl fl gl pl sl
cr dr gr pr tr br fr
sm sp st sw sc

**Sequence from simple to complex*

**Sequence from high to low frequency of occurrence*

• Consonant digraphs

th sh ch ph ng tch dge

• Long vowels with silent e

a-e i-e o-e u-e e-e

• Two-letter vowel teams (combination of letters standing for single vowel sound)

ai ay ea ee ey oa ie igh

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2. Break down complex strategies into obtainable pieces to ensure **LEARNING**.

Archerism:

Success breeds Success
Success breeds Motivation

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Elements of Explicit Instruction

3. Provide quality explicit instruction lessons that yield **LEARNING**.

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3. Provide quality explicit instruction lessons that yield **LEARNING**.

• **Opening**

• **Body**

• **Closing**

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3. Provide quality explicit instruction lessons that yield **LEARNING**.

• Opening

- Attention** *Gain attention.*
- Review** *Review critical preskills and knowledge. (Retrieval)*
- Preview** *Communicate purpose of the lesson or activity.*

• Body

• Closing

- Review** *Use retrieval practice to review lesson content.*
- Preview** *Preview content of next lesson.*
- Independent Work**

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40

3. Provide quality explicit instruction lessons that yield **LEARNING**.

- Utilizing **explicit instruction** procedures.

- **Demonstration** **I do it.**
- **Guided Practice** **We do it.**
- **Checking understanding** **You do it.**

41

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3. Provide quality explicit instruction lessons that yield **LEARNING**.

Archerisms:

How well I teach = How well they learn

I do it. We do it. You do it.

I do. We do. You do.

Routines Routines Routines Routines Routines

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Elements of Explicit Instruction

4. Actively involve **all students** in responding throughout the lesson, making **LEARNING** visible.

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Opportunities to Respond – WHY?

Clear and Consistent Research Results:

- Increases time on task
- Increases academic achievement (**Learning**)
- Decreases disruptive behaviors
- Increases intensity of interventions

Research Review of 15 studies
Mac Suga-Gage & Simonsen, 2015

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Elicit frequent responses

Verbal Response Procedures Unison Choral Structured Partners Teams/Huddle Groups Individual (NO volunteers) Discussion	Inclusive Passage Reading Silent Reading (Whisper Read) Choral Reading Cloze Reading Echo Reading Partner (Me or We) Literacy Circles
Written Response Procedures Short Written Responses Whiteboards	
Action Response Procedures Acting out Touching/Pointing Gestures Facial Expressions	Use of Technology
Hold Ups White Boards Hand Signals Response Cards/Response Sheets	

45

Active Participation Essentials

Essential No. 1: Request frequent responses from students.

Essential No. 2: Require overt responses—saying, writing, doing.

Motto: *Every day, in every class, every student is participating by speaking, writing, or doing.*

Essential No. 3: Involve all students.

No Opt Out

Everyone does Everything (Feldman, 2021)

No Hands Raised policy

Essential No. 4: Structure the active participation procedures.

Essential No. 5: Provide adequate think time/preparation time.

1. Allow adequate **thinking time/preparation time**

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Opportunities to Respond - Defined

- Opportunities to Respond
 - teacher behaviors
 - number of lesson-related questions or prompts
 - teacher provides to a group or individual
- Average Number of OTRs in a minute

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Opportunities to Respond – How Many

Guidelines for Response Rates – Current Research

(Mac Suga-Gage and Simonsen, 2015; Simonsen and Myers, 2015)

Effective teachers elicit:

Simple Responses

- Such as: unison choral responses, gesture, response cards
- 3 to 5 opportunities to respond per minute

More Complex Responses

- Such as: partner sharing, written answer, math problem
- At least 1 opportunity to respond per minute

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4. Actively involve all students in responding throughout the lesson, making **LEARNING** visible.

Archerisms:

Learning is not a spectator sport.

Everyone does Everything. Dr. Kevin Feldman

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Elements of Explicit Instruction

5. Carefully monitor students' responses, adjusting the lesson as necessary to ensure **LEARNING**.

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5. Carefully monitor students' responses, adjusting the lesson as necessary to ensure **LEARNING**.

Archerisms:

Look carefully
Listen carefully

Circulate and monitor
Walk around
Look around
Talk around

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Elements of Explicit Instruction

6. Provide affirmative feedback (praise), informative feedback, and corrections to support **LEARNING**.

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6. Provide affirmative feedback (praise), informative feedback, and corrections to support **LEARNING**.

	Hattie Effect Size
Feedback	.70

53

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6. Provide affirmative feedback (praise), informative feedback, and corrections to support **LEARNING**.

Archerisms:

*Feedback feeds forward.
Feedback feeds forward.*

54

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Elements of Explicit Instruction

7. Provide deliberate practice, retrieval practice, and spaced practice to ensure retention and **LEARNING**.

55

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7. Provide deliberate practice, retrieval practice, and spaced practice to ensure retention and **LEARNING**.

Deliberate practice is goal-oriented practice consciously devoted to improvement of a skill.

Retrieval practice is a learning strategy in which students must retrieve information from memory.

Spaced practice (also known as distributed practice) is a learning strategy, where practice is broken up into several short sessions - over a longer period of time.

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7. Provide deliberate practice, retrieval practice, and spaced practice to ensure retention and **LEARNING**.

Practice	Hattie Effect Size
Deliberate Practice	0.79
Retrieval Practice	0.46
Spaced Practice	0.65

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7. Provide deliberate practice, retrieval practice, and spaced practice to ensure retention and **LEARNING**.

How much practice?

Siegfried Engelmann, who observed children responding to instructional examples for decades while developing the Direct Instruction Model, contended that “the amount of practice required is **five times** what teachers expect.”

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7. Provide deliberate practice, retrieval practice, and spaced practice to ensure retention and **LEARNING**.

Archerisms:

~~Practice makes perfect.~~

Perfected practice over time makes perfect and permanent.

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Elements of Explicit Instruction

8. Utilize management procedures that support students and teachers, thus facilitating **LEARNING**.

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8. Utilize management procedures that support students and teachers, thus facilitating **LEARNING**.

Archerisms:

Teach predictable routines. *Predictability predicts ability.*
 Provide pre-corrections. *If you expect it, pre-correct it.*
 Provide acknowledgement. *Catch them being good.*
 Maintain a perky pace. *Avoid the void for they will fill it.*

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Elements of Explicit Instruction

9. Intentionally establish positive teacher-student relationships that support **LEARNING** in the classroom.

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- 9) Intentionally establish positive teacher-student relationships that support **LEARNING** in the classroom.

Connect. Connect. Connect.

Be kind.
 Be kind.
 Be kind.

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Elements of Explicit Instruction

Every day, in every class, in every lesson, we will:

1. Focus on **critical content** to promote **LEARNING**.
2. **Break down complex strategies** into obtainable pieces to ensure **LEARNING**.
3. Provide **quality explicit instruction** lessons that yield **LEARNING**.
4. Actively **involve all students** in responding throughout the lesson, making **LEARNING** visible.
5. Carefully **monitor students' responses**, adjusting the lesson as necessary to ensure **LEARNING**.

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Explicit Instruction

6. Provide **affirmative feedback** (praise), informative feedback, and corrections to support **LEARNING**.
7. Provide **deliberate practice, spaced practice and retrieval practice** to ensure mastery, retention, and **LEARNING**.
8. Utilize **management procedures** that support students and teachers, thus facilitating **LEARNING**.
9. Intentionally establish positive **teacher-student relationships** that support **LEARNING** in the classroom.

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Anita Archer's "Archerisms"

Explicit Instruction

Teach the *stuff* and cut the fluff.
How well I teach = How well they learn
I do it, We do it, You do it.

Learning is not a spectator sport.
Everyone does Everything
Look carefully. Listen carefully.
Walk around. Look around. Talk around.

FEEDBACK FEEDS FORWARD
Perfect practice over time makes
perfect and permanent.

Predictability predicts ability
If you expect it, pre-correct it.
Avoid the void, for they will fill it.

Teach with passion.
Manage with compassion.

66

66

Explicit Instruction	Mental Map
Plan	
*Select critical content.	
*Sequence the skills/knowledge logically.	
*Break down content into obtainable chunks.	
*Develop or select clear examples & non-examples.	
Teach	
Design of Instruction	Delivery of Instruction
Opening	
Gain attention.	
Review preskills/background knowledge.	*Elicit responses.
State the lesson's purpose or goal.	Everyone does Everything.
Body	
Provide an organized, focused, engaging lesson.	*Monitor student responses.
Communicate with clarity.	
Utilize instructional routines.	
Provide clear demonstrations. I do.	
Provide guided practice. We do.	*Provide feedback.
Check understanding. You do.	Affirmative
	Corrective
Closing	
Review critical content. (Retrieval Practice)	*Maintain brisk pace.
Preview content for next lesson.	
Practice	
*Provide adequate practice for mastery.	Anita Archer, Ph.D.
Deliberate Practice (goal-oriented)	September 2023
Retrieval Practice (from memory)	Teach them well.
Spaced Practice (over-time)	
Cumulative Practice (mixed content)	
Optimize Academic Learning Time. Promote Success.	

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Thank you for your dedication to quality instruction so that all children can read and write with ease.

- I slept and dreamt that life is *joy*.
- I awoke and saw that life was service.
- I acted and behold, service was *joy*.

Rabindranath Tagore

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2023 RTI Conference Handouts

Saturday 28th Oct

Session 4 - What the Research Says

by Julie Sonnemann

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1


Julie Sonnemann

Director Education, Impact Economics Consulting
(Former) Deputy Program Director, Grattan Institute

Bio:

- Background in education research and system design
- Lead author of Grattan Institute reports on small-group tuition and response to intervention models
- Consulting to clients such as AERO on Multi-tiered support systems


Passionate about providing high quality learning for all students



2

Discussion today

- Key design features of effective small-group tutoring
- Common challenges
- Cost-effectiveness considerations
- Links to good resources



3

Research insights: guides and reviews

Guides for schools



Key literature reviews

- Nickow, A., Oreopoulos, P. and Quan, V. (2020) The Impressive Effects of Tutoring on Pre-K-12 Learning: A Systematic Review and Meta-Analysis
- Robinson, C. D. and Leeb, S. (2021). "High-Impact Tutoring: State of the Research and Priorities for Future Learning", Annenberg Institute Brown University, EdWorkingPaper, pp. 21–384.
- Education Endowment Foundation (2021). Small-group tuition interventions, evidenceforlearning.org.au
- White, S., Groom-Thomas, L. and Leeb, S. (2023). A systematic review of research on tutoring implementation, Annenberg Institute Brown University



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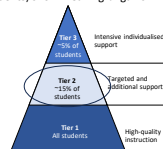
Small-group tutoring works...but...

Strong evidence that small-group tuition has positive effects for student learning and well-being

- Estimated additional 4+ months on student learning (UK Education Endowment Foundation)
- A recent meta-analysis found an additional 3 to 15+ months on learning (Nickow et al 2020)
- Even studies of larger tutoring programs (500 to 7000 students) show meaningful gains

However not **all** tutoring is high-impact

- Evidence base shows specific design features matter
- Embedding within RTI model is key



5

Quality instruction is paramount

*The quality of small-group tuition will only be as good as the **quality of the instruction** provided*

"Quality of teaching is likely more important in achieving positive impacts than getting the 'perfect' design e.g., a certain group size"
(EEF 2021)



6

Design features: intensity of tutoring


How frequent should tutoring sessions be?

One meta-analysis found that high-impact tutoring was **20 times more effective** than low-dosage tutoring in math.

In reading, high-impact tutoring was **15 times more effective** than low-dosage tutoring.

Studies have found little evidence that once-a-week tutoring is sufficient to generate meaningful effects.

Source: Annenberg Institute 2021




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Intensity of tutoring

How frequent should tutoring sessions be?

- High frequency regular sessions e.g. up to 1 hour at least 3 times a week, ideally up to 5 times a week
- Primary students e.g. 20 min x 5 times a week

Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022), White et al (2023)




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Intensity of tutoring

How long should tutoring go for?

Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022), White et al (2023)




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Intensity of tutoring

How long should tutoring go for?

- Most effective tutoring programs last for at least 6-10 weeks, some programs up to 20 weeks or a year




Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022), White et al (2023)

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Intensity of tutoring

What is the ideal group size?




Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)

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Intensity of tutoring

What is the ideal group size?

- The smaller the group, the better
- Groups more than six tend to be less effective
- Groups of 3 tend to provide value for money while ensuring quality
- Grouping students by skill level can make for a more effective tutoring lesson, but not always




Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)

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Instruction and curriculum

What should instruction and curriculum entail?



Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)


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Instruction and curriculum

What should instruction and curriculum entail?

- Monitoring student progress, frequent (informal) assessments
- Target student needs, data used to inform tutoring sessions
- Good collaboration among tutors, teachers, leaders on student learning needs
- Strong alignment with classroom content, strong curriculum materials, time to work together

"Tutoring programs that support data use and on-going informal assessments allow tutors to more effectively tailor their instruction for individual students" Annenberg Institute 2021




Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)

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Who should tutor

What qualifications should tutors have?



Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)


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Who should tutor

What qualifications should tutors have?

- Teachers get the best results as tutors
- But teaching assistants and pre-service teachers can get good results IF they receive adequate training, support, supervision
- For teaching assistants and other non-teachers, structured learning materials and sequenced programs are beneficial, aligned to classroom content

On paraprofessionals, one of the most promising US studies used AmeriCorps fellows to conduct daily 2:1 tutoring sessions with low-performing students in 12 Chicago Public Schools. In addition to improved math test scores, students' math grades improved by 0.58- GPA points, moving students from a C- average to a C+. Students were 50% less likely to fail their math course and 28% less likely to fail a non-math course (AnnenbergInstitute 2021)




Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)

16

When to do tutoring

When should tutoring take place?



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When to do tutoring


When should tutoring take place?

- Tutoring has better results during the school day, rather than outside school hours and off-site
- Ensure does not substitute whole class instruction
- Avoid conflicts with same subject in which tutoring is provided, rotate sessions

Schools should give careful consideration when timetabling tutoring sessions; for example ensuring that pupils do not miss core English and maths lessons, or any specialist support required by pupils with SEND

UK NTP Best Practice Guide 2020

One review found **double the impact** of tutoring during school day versus after-school



Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)

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Online tutoring

Can tutoring be done online?

- Emerging evidence that online tutoring gets good results, including in the home setting
- Online tuition can overcome geographic distance to better match tutors, opening up the pool of tutors available
- Digital learning tools and online assessments can help tutors better assess student needs
- Still challenges with access to technology, internet connectivity, home environments hard to study

"Smith Family's online Catch-Up Learning pilot" 2021 evaluation found significant improvements in students' literacy and numeracy"

"Online catch-up tuition is showing positive signs in randomised control studies in Spain and Italy, and a pilot study in the UK"

"Amira", an AI-powered intelligent tutor focused on accelerating reading mastery one-on-one for primary students, has shown impact on-par or better than human tutors in controlled randomised studies"

Grattan Institute 2023

Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022)



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Tutor – student relationship

What can be done to improve student-tutor relationship?

- Consistent tutors
- Tutors learn about student interests, strengths, life contexts and then apply knowledge
- See recent [EEF study](#) tested giving tutors and pupils time to find common ground improved attendance (it did!)
- Be supportive, safe space, positive tone, exploring the impact of age, race, class and other social identities
- Ongoing communication with parents, teachers and others in support network
- Tutoring in small groups and pairs can reduce stigma

"Many tutoring interventions keep **one tutor** with a set student or group of students for the duration of the program," Annenberg Institute 2021

"How the tutoring opportunity is explained to pupils and communicated more widely to families is key" UK NTP Guide 2020

Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022), White et al (2023)



20

School leadership

What can school leaders do?

- School leader support is essential: funding, space, ensuring staff have the right skills and collaboration

A review in the US of COVID tutoring programs found "buy-in from principals and other school-level staff **go foundational** for tutoring success"

Annenberg Institute 2021-22

"School leaders can:

- Lead with relationships among teachers, students, parents
- Ensure tutoring is implemented with fidelity to design features
- Dedicate a team to focus on continual improvement
- Ensure that staff have the right support, knowledge and skills"

Annenberg Institute 2023

Source: Nickow et al (2020), Evidence for Learning (2021), UK National Tutoring Programme Guide (2020), UK Education Endowment Fund Guide (2022), White et al (2023)




21

Common challenges in schools

Evaluations of the 2020-22 COVID tutoring programs in Australia highlight the following issues:

- Finding eligible tutors
- Finding physical space to deliver tuition
- Finding time for teacher - tutor collaboration
- Students missing out on class content if tutoring is delivered during class time
- Work covered in the tutoring sessions not always aligning to the students' classwork

Source: common themes of public reports from NSW Department of Education (2022b), NSW Department of Education (2022c), the Victorian Department of Education (2022b), and The Smith Family pilot (2021)



22

Cost-effectiveness considerations

Type of tutor

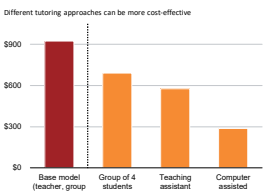
Size of group

Amount of tutoring

Online tutoring


Computer assisted

Different tutoring approaches can be more cost-effective



Tutoring Approach	Estimated Cost (\$)
Base model (teacher, group of 3 students)	900
Group of 4 students	650
Teaching assistant	550
Computer assisted	300

Source: Cost-effectiveness factors are discussed in Sonnenschein and Hunter (2022), How to Embed Small-group Tutoring, Grattan Institute report, as well as Robinson and Loeb (2023). Chart is from Sonnenschein and Hunter (2022), Grattan Institute report. Chart notes: The underlying assumption for all scenarios is a 12-week tutoring program of 30-minute sessions of four times a week, for two subjects (total 24 weeks). The base model assumes a teacher as tutor, with groups of three students, 15 hours of tutor training, and \$200 in resources per tutor. The second scenario assumes tutoring in groups of four, 15 hours of tutor training and \$100 in resources per tutor. The third scenario assumes a teaching assistant as tutor, with groups of four, 24 hours of tutor training, and \$200 in resources per tutor. The fourth scenario assumes a teaching assistant as tutor but with tutoring primarily delivered by a computer-assisted 'intelligent tutoring program' (for discussion see Robinson and Loeb (2023)), in groups of six (consistent with Chambers et al (2013)), with 30 hours of tutor training, and \$200 in resources per tutor. In this scenario, there is an additional sub-cost for purchasing the software, estimated at \$20 per student, although costs per student would vary by program and scale of delivery.




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Thank you

Guides for schools


[Grattan Institute \(2023\)](#)




[Education Endowment Foundation \(2021\)](#)




[UK, National Tutoring Programme \(2020\)](#)



[Stanford University and Annenberg Institute \(2021\)](#)




[US National Student Support Accelerator \(2023\)](#)



Key literature reviews

- Nickow, A., Onofreopoulos, P. and Quan, V. (2020) The Impressive Effects of Tutoring on PreK-12 Learning: A Systematic Review and Meta-Analysis
- Robinson, C. D. and Loeb, S. (2021). "High-Impact Tutoring: State of the Research and Priorities for Future Learning". Annenberg Institute Brown University EdWorkingPaper, pp. 21-184.
- Education Endowment Foundation (2021). Small-group tuition interventions, evidenceforlearning.org.au
- White, S., Groom-Thomas, L. and Loeb, S. (2023). A systematic review of research on tutoring implementation, Annenberg Institute Brown University



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LDA 2023 RTI Conference

8



LEARNING DIFFICULTIES AUSTRALIA

2023 RTI Conference Handouts

Sunday 29th Oct

Session 1 - *The Development and use of the WARs*

by Dr Robyn Wheldall & Dr Nicola Bell

Thanking all our Gold Sponsors...



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[@LD_Australia](https://twitter.com/LD_Australia)



1

Nicola Bell

BScPath (Hons II), PhD
Research Fellow, MultiLit Research Unit

Nicola's PhD thesis topic was literacy development in children with cochlear implants, although she is interested and has published in school-aged literacy more broadly. As Research Fellow within the MultiLit Research Unit, she has contributed to the organisation of trials in schools across Australia.



2

Robyn Wheldall

BA, PhD (Special Education), MAICD
Director & Co-founder, MultiLit Pty Ltd
Deputy Director, MultiLit Research Unit
Honorary Research Fellow, Macquarie University

Robyn has expertise in researching reading interventions and has worked in the areas of learning difficulties, special education, behaviour management and literacy instruction and intervention for struggling readers for more than 30 years.



3

Alison Madelaine
BA Dip Ed (Primary), Grad Dip Spec Ed, PhD

Alison is Senior Research Fellow with the MultiLit Research Unit and Clinical Director of MultiLit Literacy Centres. Alison has extensive knowledge of reading development, instruction and assessment. She completed her doctorate on curriculum-based measurement of reading and was a lecturer in special education with a focus on literacy at Macquarie University Special Education Centre (MUSEC).



Kevin Wheldall AM
BA, PhD, C. Psychol, FASSA, FRPS, FColIP, FRALD, MAPS, FCEDP



Kevin is an Emeritus Professor of Macquarie University and is Chairman and Director of MultiLit Pty Ltd. He is the Director of the MultiLit Research Unit. He has researched in the areas of language, behaviour and reading for over 50 years.



4

Disclosure statement

Dr Robyn Wheldall and Emeritus Prof Kevin Wheldall are directors of MultiLit Pty Ltd and have a financial interest in it. Dr Nicola Bell, Dr Alison Madelaine and Dr Siobhan Merlo are paid employees of MultiLit Pty Ltd. MultiLit is a commercial organisation that publishes literacy-related instructional programs and assessments.

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The development and use of the WARs

Nicola Bell, Robyn Wheldall, Alison Madelaine & Kevin Wheldall



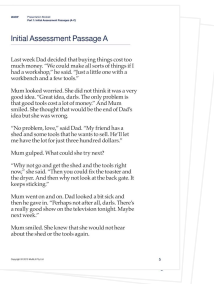

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The development and use of the WARs

- i.e., the Wheldall Assessment of Reading Passages (**WARP**), the Wheldall Assessment of Reading Lists (**WARL**), and the Wheldall Assessment of Reading Nonwords (**WARN**)
- For each measure, we will discuss:
 - Process of development
 - Theoretical/research rationale
 - Psychometric qualities
 - Recommendations for use



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WARP: Early years of development

- 1995: 21 x 200-word passages of similar readability (Wheldall & Madelaine, 1997)
- Research conducted to establish:
 - 5x most similar passages (Wheldall & Madelaine, 1997)
 - WCPM (1st minute) just as effective as WPP (entire passage) (Wheldall & Madelaine, 1997)
 - Reliability (inter-rater and alternate forms) of 5x passages (Madelaine & Wheldall, 1998, 2002a; Wheldall & Beaman, 2002; Wheldall & Madelaine, 1997)
 - Criterion validity of 5x passages (Madelaine & Wheldall, 1998)
 - Scores are better predictors of reading ability than teacher judgement (Madelaine & Wheldall, 2002c, 2005b)



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WARP: Later years of development

- Research conducted to establish:
 - 3x most similar Initial Assessment (IA) passages, as differentiated from 10x Progress Monitoring (PM) passages (Wheldall & Madeline, 2006)
 - Benchmarks/norms for Years 2-6 (IA passages) (Madeline & Wheldall, 2002a, 2002b)
 - Ceiling effect around Year 5 (Madeline & Wheldall, 2002a)
 - Reliability (alternate forms) of IA passages (Madeline & Wheldall, 2002b; Wheldall & Madeline, 2006)
 - Criterion validity of IA passages (Madeline & Wheldall, 2002b, 2005a)
 - Reliability (alternate forms) of PM passages (Madeline & Wheldall, 2006)
 - Interpolated norms for time points between testing (Wheldall & Madeline, 2013)



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WARP: Most recent research

- Used as outcome measure of oral reading fluency
 - InitialLit-2 (MultiLit Research Unit, 2021)
 - Open- vs. enclosed-plan classrooms (Rance et al., 2023)
- Updated validity analyses based on data aggregated since publication (Wheldall et al., in preparation)



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WARL: Development

- Stimuli sourced from database of words in books for 5-7y/o children (Stuart et al., 2003)
- Research conducted to establish:
 - 100-word lists (vs. 75-word lists) (Reynolds et al., 2009 [pilot study])
 - 60 sec duration (vs. 30 sec) (Reynolds et al., 2009 [main study])
 - 3x most similar Initial Assessment (IA) lists, as differentiated from 10x Progress Monitoring (PM) lists (Reynolds et al., 2009 [main study])
 - Benchmarks/norms for Years 1-2 (IA lists) (Reynolds et al., 2011)
 - Reliability (alternate forms) of IA lists (Reynolds et al., 2009 [main study], 2011)
 - Criterion validity of IA lists (Reynolds et al., 2009 [main study], 2011)
 - Reliability (alternate forms) of PM lists (Reynolds et al., 2009 [main study])
 - Criterion validity of PM lists (Reynolds et al., 2009 [main study])



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WARL: Most recent research

- Used to measure progress following instruction or intervention
 - InitialLit-F/InitialLit-1 (MultiLit, 2020)
 - MiniLit Sage (MultiLit Research Unit, 2021)
- Predictor of Phonics Screening Check results (Bell et al., 2020)
- Updated validity analyses based on data aggregated since publication (Wheldall et al., in preparation)
- Interpolated benchmarks for Terms 2 and 4



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Initial Assessment List A

mp	top	if	man	fp
lot	not	out	dog	who
get	egg	see	net	bat
jet	pod	turn	old	bug
pull	back	off	class	meat
quilt	down	more	much	ring
stop	up	good	like	visit
bring	white	bag	room	door
find	often	happy	party	cat
ten	few	water	wind	long



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WARN: Development

- Stimuli constructed using phoneme-grapheme correspondences taught in InitialLit-F
- Proof-of-concept trial (2016) to establish:
 - 30 sec duration (vs. 60 sec)
 - 50-nonword lists
- Research conducted to establish:
 - 13x most similar lists (of 15x) that were divided into 3x Initial Assessment (IA) lists and 10x Progress Monitoring (PM) lists
(Wheildall et al., 2021 [2016 data])
 - Benchmarks/norms for Years F-1 (IA lists)
(Wheildall et al., 2021 [2017-2018 data])
 - Reliability (alternate forms) of IA and PM lists
(Wheildall et al., 2021 [2016 data])
 - Criterion validity of IA and PM lists
(Wheildall et al., 2021 [2016 data])



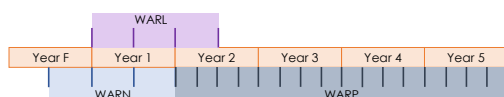
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Rationale for developing the WARs

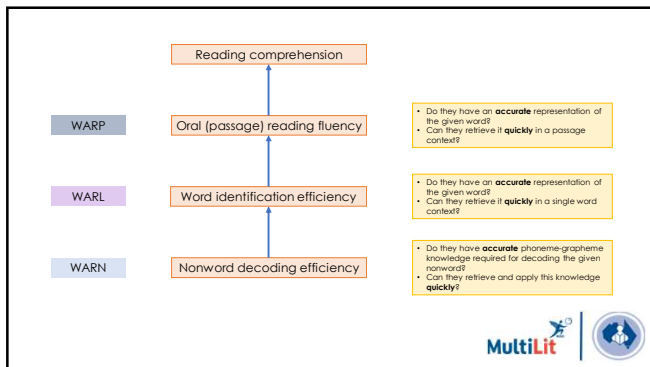
- All intended as curriculum-based measures (CBMs) of reading
 - CBMs = assessments based on curriculum requirements
 - Reading CBMs represent the **general** reading curriculum (rather than relating to specific texts)
- Each WAR designed to reflect curriculum requirements of certain year level ranges



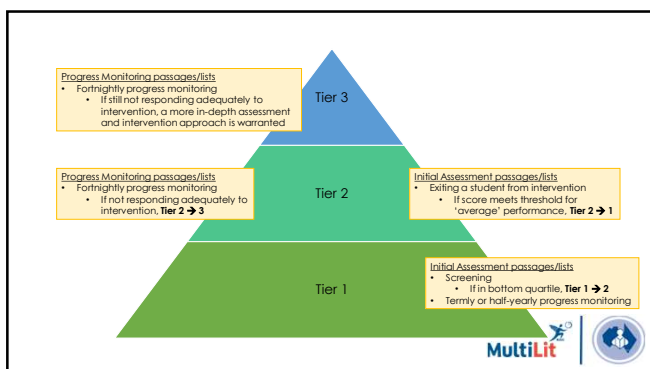
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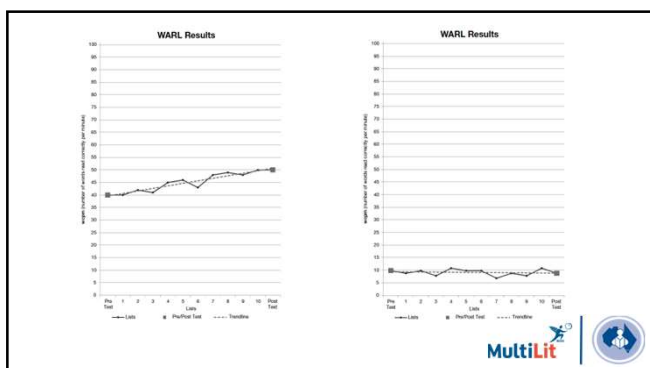
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Strengths of the WARs

- Has multiple uses
- Quick and easy to administer
- Sensitive to small changes in progress
- Allow for progress monitoring (i.e., parallel forms)
- Good reliability and validity



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Reliability (Alternate forms)

WARP	WARL	WARN
.97 ^a	.90 ^a	.94 ^c

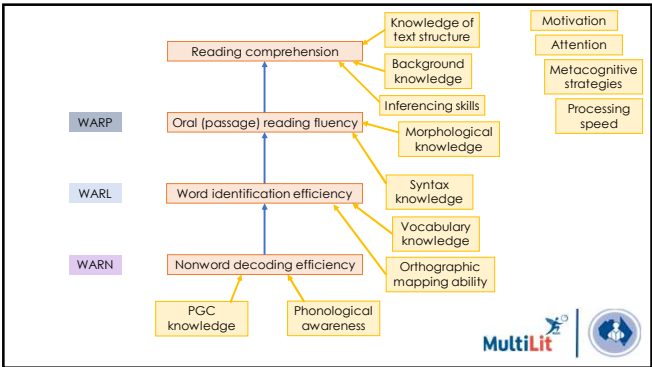
Validity

WARP	WARL	WARN
WARL	TOWRE Sight Words	Martin & Pratt (NW reading)
.91 ^e	.92 ^b	.87 ^c
NARA (passage) accuracy	WARP	WARL
.86 ^d	.91 ^e	.86 ^c
Burt (sight word accuracy)	Burt (sight word accuracy)	
.83 ^f	.87 ^e	
SAST (spelling)	WARN	
.77 ^d	.86 ^c	
Martin & Pratt (NW reading)	SAST (spelling)	
.59 ^d	.83 ^e	
NARA Reading Comp	SPAT-R (PA)	
.55 ^d	.69 ^e	
PPVT (vocabulary)	TOWRE Phonemic Decoding	
.33 ^d	.76 ^b	
	Martin & Pratt (NW reading)	
	.75 ^e	
	PPVT (vocabulary)	
	.42 ^e	

^aModelaine & Wheldall (2002a)
^bReynolds et al. (2009)
^cWheldall et al. (2011)
^dWheldall et al. (in preparation)
^eReynolds et al. (2011)



23



24

Thank you for listening!

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References

- Bell, N., Forrester, M., & Wheldall, R. (2020). Use of early word-reading fluency measures to predict outcomes on the Phonics Screening Check. *Australian Journal of Educational Psychology*, 93(1), 151-175.
- Macdonald, A., & Wheldall, R. (1998). Towards a curriculum-based passage reading test for monitoring the performance of low-progress readers: A standardised passage & early word-reading test. *Australian Journal of Educational Psychology*, 71(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003a). Establishing benchmarks and identifying trends of passage reading performance. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003b). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Educational Psychology*, 22(4), 461-471.
- Macdonald, A., & Wheldall, R. (2003c). A comparison of two quick methods for monitoring the performance of low-progress readers. *Psychological Bulletin*, 129(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003d). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003e). Identifying low-progress readers: Comparing a new passage reading test with a curriculum-based measure. *Psychological Bulletin*, 129(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003f). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003g). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003h). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003i). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003j). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003k). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003l). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003m). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003n). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003o). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003p). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003q). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003r). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003s). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003t). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003u). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003v). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003w). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003x). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003y). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.
- Macdonald, A., & Wheldall, R. (2003z). Further progress towards a standardised curriculum-based measure of reading: Comparing a new passage reading test against the New South Wales Basic Skills Test. *Australian Journal of Educational Psychology*, 76(1), 1-10.

Accessible via LDA website (www.ldaustralia.org)



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LEARNING DIFFICULTIES AUSTRALIA

2023 RTI Conference Handouts

Sunday 29th Oct

**Session 2 - Numeracy & Mathematics
Assessment Using the RTE Model**

by Dr Sioioban Merlo

Thanking all our Gold Sponsors...





LEARNING DIFFICULTIES AUSTRALIA

2023 RTI Conference Handouts

Saturday 28th Oct

Session 1 - Fundamentals of RTI

by Julie Scali

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1

Universal screening with Dibels 8th and setting SMART targets for students with learning difficulties

October 29th, 2023
Julie Scali

2

Julie Scali


- Director of Literacy Impact, Perth WA
- Bachelor of Arts, Pmy, Grad Cert LD
- Primary teaching background- Perth; London and Belfast- 24 years in total
- Learning difficulties support Teacher- SSEND, DoE, WA
- Deputy Principal for 8 years- leading literacy improvement
- Started Literacy Impact in 2021- consulting in schools; online masterclasses, professional learning for schools, coaching
- Learning Difficulties Australia Bulletin- Editor
- Author of *High Impact Reading Instruction and intervention in the Primary Years*



3


Acknowledgement of Country


I would like to acknowledge that this meeting is being held on the traditional lands of the Whadjuk-Noongar people. We acknowledge them as the traditional custodians of this land and pay our respects to the elders both past, present and future for they hold the memories, the traditions, the culture and hopes of Aboriginal Australia.





4


Session outline:

 Unpack how Dibels can be used as an effective universal screener for identifying risk across in reading


 Identify steps to follow in interpreting Dibels data to inform action

 Understand how Dibels data can be used to set SMART targets for students with reading difficulties

 Identify examples of effective targets for reading difficulties

 Understand a schoolwide process for monitoring targets

5



Dibels 8th ORF- What and When?

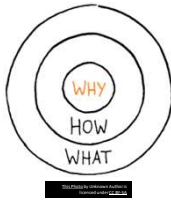

- Universal screener- whole school assessments three times per year- T1, T2, T4, F-Y8
- Like a blood pressure check or thermometer reading- an indicator of risk or in range

6

Why use Dibels 8th?

- To screen Year F-8 students who are not on track for meeting end of year reading standards. Supports schools to monitor student progress at across the year between benchmark assessments
- Subtests can inform student errors to guide instruction decisions (for F-3)
- Assess 'health of the system for meeting students' instructional needs. For example.. If 60% of the students are at risk, it is not a LD problem it is a whole class teaching problem (or tier 1 problem)

(Center for Teaching and Learning- University of Oregon)


7

91% correlation to reading comprehension


ORF scores correlation with reading comprehension

Measure	Validity
Oral Retell	0.70
Cloze	0.72
Question Answering	0.82
Oral Reading Fluency (ORF)	0.91

(Fuchs, Fuchs, Hosp., & Jenkins (SSR, 2001)
in the OSPI + Glean Expert Webinar Series with Dr. Jan Hasbrouck- October 20, 2022



8




Compare this to 'benchmarking' or getting a reading 'level'

A running record or reading 'level' does not provide a valid or accurate measure of reading proficiency. This is because reading is multi-faceted and these assessments are flawed.

Matt Burns (2022) in Scali, 2023,

"We found that the Fountas and Pinnell Benchmark Assessment System had about 54% diagnostic accuracy. It identified children as good readers and struggling readers about as accurately as if you were to flip a coin."



9

We must know our students expected end of year targets

Hasbrouck & Tindal (2017; 2006)

Year	Target WCPM
1	?
2	?
3	?
4	?
5	?
6+	?

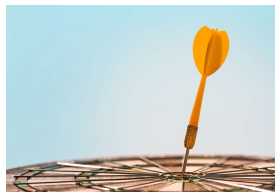


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We must know our students expected end of year targets

Hasbrouck & Tindal (2017; 2006)

Year	Target WCPM
1	60
2	100
3	115
4	135
5	150
6+	150



11

Few things to know about Dibels 8th



Assessments are called 'Benchmarks' & Kindergarten is Foundation year.



Passages for monitoring progress are called 'progress monitoring' tools




Students identified below benchmark can be monitored each fortnight there are resources for these



12

Dibels
8th
website




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Dibels 8th-
University of
Oregon-
Benchmark
materials
(PP-Year 8)


Benchmark Materials


Scoring booklets and student materials by grade for benchmark assessment.


Tip: We recommend opening the materials in the latest versions of Adobe Acrobat or [Adobe Reader](#).


Grade K: [Australasian K Student Benchmark Materials & Scoring Booklets](#) 


Grade 1: [Australasian G1 Student Benchmark Materials & Scoring Booklets](#) 

Grade 2: [Australasian G2 Student Benchmark Materials & Scoring Booklets](#) 

Grade 3: [Australasian G3 Student Benchmark Materials & Scoring Booklets](#) 

Grade 4: [Australasian G4 Student Benchmark Materials & Scoring Booklets](#) 

Grade 5: [Australasian G5 Student Benchmark Materials & Scoring Booklets](#) 

Grade 6: [Australasian G6 Student Benchmark Materials & Scoring Booklets](#) 

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Subskills assessed by year level

Foundation (US Kindergarten)		Year 8
Phoneme Segmentation	(1 minute)	Oral Reading Fluency (ORF) (1 minute)
Letter Naming	(1 minute)	MAZE (comprehension passage) (3 minutes) <i>*Can be administered in a small group</i>
Non-Word Reading fluency	(1 minute)	
Word Reading fluency	(1 minute)	

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Any questions so far?



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Of course, our data is only as good as what we do with it!

"We collect a lot of data, but we don't analyse it meaningfully, effectively or in a schoolwide approach"
(said lots of schools!)



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What do we do with the data?

1. Identify % of students in **blue**, **green**, **yellow** and **red** for a baseline.

2. Analyse these areas. If there are more than 20% in the orange or red in total, there is a Tier 1 issue. Implement robust Tier 1 improvements here.

3. Why are the students in **yellow** or **red**? (This is when we need to further diagnostic assessments. Look to the Simple View of Reading or the Reading Rope)

4. Students identified in **yellow** or **red** are progress monitored every 2-4 and 2 weeks respectively



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Year 1 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 1	10.00%	10.00%	0.00%	
Year 2	10.00%	10.00%	0.00%	
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 2 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 2	10.00%	10.00%	0.00%	
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 3 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 4 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 5 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 6 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 6	10.00%	10.00%	0.00%	

Example School #1 WA Data F-6

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Year 1 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 1	10.00%	10.00%	0.00%	
Year 2	10.00%	10.00%	0.00%	
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 2 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 2	10.00%	10.00%	0.00%	
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 3 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 3	10.00%	10.00%	0.00%	
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 4 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 4	10.00%	10.00%	0.00%	
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 5 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 5	10.00%	10.00%	0.00%	
Year 6	10.00%	10.00%	0.00%	

Year 6 (2019-2020)				
Year	Score	Target	Gap	Notes
Year 6	10.00%	10.00%	0.00%	

Example School #2 Queensland

What can you tell me about this school's data?

Year 2

Year 4

Year 6

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Three driving questions- Disciplined dialogue approach






What is the data telling us?

Why do we think this is so? (in terms of what can be controlled in the classroom/learning environment)

What are we going to do about it? What targets and actions?

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This is when SMART target setting comes in- using a medical analogy..

-  **Specific**- what dosage is required based on age/need/weight?
-  **Measurable**- the dosage is carefully measured and pre and post data is observed on its impact
-  **Achievable**- the type of medicine has been proven to make a difference for the child's need/illness
-  **Realistic**- the type of medicine is suitable for the child ie a syrup instead of a tablet, the amount and time of day is realistic to administer
-  **Timebound**- the child's health is monitored over a week or two and the medicine ceases at a particular date or continued for another script dosage if it hasn't worked; review with doctor again if no improvement

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Let's apply this to Education/Learning Difficulties

- Specific**- what intervention is required based on end of year requirements, reading difficulty profile, writing difficulty, maths difficulty- what exactly is the issue?
- Measurable**- the intervention is carefully measured and pre and post data is observed on the impact of the intervention
- Achievable**- the type of intervention has been proven to make a difference for the child's need- it is evidence based
- Realistic**- the type of intervention is suitable for the child ie the type of intervention, the amount and time of day is realistic to administer
- Timebound**- the child's learning and progress is monitored over a week or two and the intervention has a review date or continued for another intervention dosage if it hasn't worked and then review the case and targets again if no improvement- what is the reason behind limited improvement

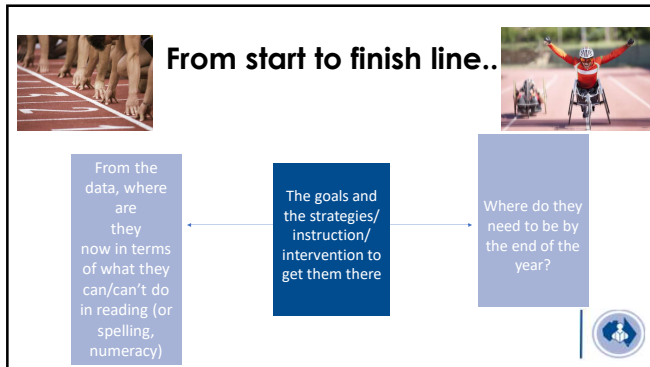


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The underlying premise of SMART targets are grounded in research

-  Teachers' high expectations drive student success
-  AITSL standards 5.4 - teachers need to be able to use data effectively to inform instruction & also sets challenging goals for students
-  If we are not specific about what we want students to achieve there is a good chance they won't get there!
-  Measurable, Realistic and Timebound- if we take an antibiotics analogy- we need to know when we want students to achieve it by, it has to be realistic and we need to know the dosage (strategy and amount of time provided and how often)

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Backward mapping when setting targets

1. What is the starting point in the data? eg A Year 2 student with 20 WCPM fluency, decoding at a CVC proficiency
2. What is the end of year expectation for this Year 2 student? Year 2 student EOY expectation is 90 WCPM- fluency, decoding a range of words with multiple phonic patterns.
3. What goals will be set for each half term/term to get them to this target? What actions, instructional routines and interventions do I need to put into place?

An illustration of three arrows (green, blue, and purple) pointing towards a target on the right side of the slide.

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What is the underlying profile of the poor reading issue?

What diagnostic assessments do we need to do to find this out? PA, decoding, language etc.


What tier 1 practices can we refine/improve?

eg Daily fluency pairs, daily whole class echo and choral reading to increase daily fluency practice, phrase cued reading intervention (for improving prosody)

A small circular logo is located in the bottom right corner of the slide.

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Time bound: By the end of ... By Week, Term, Year...	Example: By the end of Week 9, Term 4, 2023
Specific/Realistic/Achievable: 'Student' will be able to...identify/blend/read/write/spell..	John will be able to orally segment and blend CVC words in the Level 2 CVC Decodable Readers Australia books
Measurable: ...with accuracy on 4/5 occasions ...with fluency on 9/10 occasions ...with 90% accuracy	with accuracy on 4/5 occasions.




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Set the goal with high expectations in mind


Low expectations (from 20 WCPM in Year 2)
 Over one year:
 Academic goal- to learn 10 high frequency words


High expectations
 By the end of Term 1, Student will be able to read a year 2 ORF progress monitoring passage with **85 WCPM**
 By the end of Term 2, Student will be able to read a year 2 ORF progress monitoring passage with **90 WCPM**
 By the end of Term 3, Student will be able to read a year 2 ORF progress monitoring passage with **95 WCPM**
 By the end of Term 4, Student will be able to read a year 2 ORF progress monitoring passage with **90 WCPM**





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What strategies/intervention/practice will support the goal/s?


TIER 1


TIER 2


TIER 3



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Case study Example- Tier 3

Baseline- Year 3 Student with Developmental Language Disorder and Dyslexia, baseline of 54 WCPM in Dibels ORF and 14 WCPM for NWF (End of year expectation for fluency for Year 3 is 115WCPM)
additional intervention was included to address language and phonics difficulties

Targets- Decoding and Fluency	Strategies/intervention	Monitoring
By Week 9, Term 4, 2022, Student will be able to read any Year 3 level Dibels text at 70 Words Correct Per Minute (WCPM)	<ul style="list-style-type: none"> Daily home reading practice of a decodable text of the Phonics Books UK Talisman series Daily Tier 1 whole class choral reading practice of grade level texts- to support daily oral reading practice Weekly intervention practice –echo and choral reading (reading in unison with Julie) of Dibels Year 3 level text- unpacking the meaning, unknown words, modelling appropriate pausing and expression. Providing feedback and then reading independently Tier 3 phrase cued reading intervention- highlighting the pause points and punctuation markers in knowledge rich text (linked to History unit in class) Tier 3- In class daily practice- choral reading with an EA- for 5 minutes per day of a Talisman text. Nightly home practice of decoding slides from CCVC to CCVCC and digraph level (fluency progressions) 	<p>Progress monitoring weekly Oral Reading Fluency (ORF)</p> <p>Progress monitoring weekly Non word fluency (NWF)</p>
By Week 9, Term 4, 2022, Student will be able to read any Dibels Year 3 standard non word reading text with 30 WCPM accuracy		

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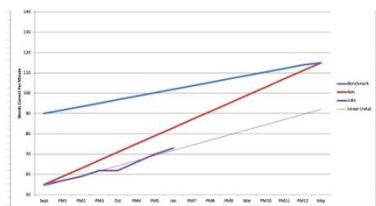
Schoolwide Rigorous Progress Monitoring

- Students identified in **red**-every 2 weeks
- Students identified in **yellow**-every 2-4 weeks
- Utilise Education Assistants to support this practice



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Mapping student progress on a line graph



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Other effective use of the Dibels data

- Target setting for groups of students
- Identifying risk and then doing further diagnostic screening
- Mixed ability fluency pairs-pairing students
- Daily Review- building in targeted aspects of fluency needing work
- Targeted Literacy Cycles- whole school 5-10 week improvement cycles



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Targeted Literacy Cycles

Targeted Literacy Cycles Tracking- Dibels Target Setting
Room: [] Term: 3 Teacher: []

School target:
Reading Fluency: All students to reach end of year expected standards for reading fluency through DIBELS screening.

Year level target: **Year 2**
By the end of Year 2, all students will be able to read Year 2 DIBELS benchmark with 80 Words Correct Per Minute (WCPM).
By the end of week 8, Term 3, 2023, there will be less than 10% of students in Year 2 that are at significant risk in oral-reading fluency (ORF) according to Year 2 progress monitoring tools for St 2 student.

Differentiated Targets

Students	By Week 8, Term 3 These students will be able to read a year 2 level DIBELS benchmark with an ORF of 55 WCPM	By Week 8, Term 3 These students will be able to read a year 2 level DIBELS benchmark with an ORF of 75 WCPM	By Week 8, Term 3 These students will be able to read a year 2 level DIBELS benchmark with an ORF of 80 WCPM
DS			
ES			
MS			
WS			

We will achieve this through the following evidence based approaches:

Universal screening:
All students will be screened for reading fluency using the DIBELS screening tool. This will be done at the end of each term. Students who are at risk of not meeting the benchmark will be identified and targeted for intervention.

Targeted Progress Monitoring:
All students who are at risk of not meeting the benchmark will be monitored using the DIBELS screening tool. This will be done at the end of each term. Students who are at risk of not meeting the benchmark will be identified and targeted for intervention.

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Year 3 class after 6-week cycle

22 WCPM with 78% accuracy to 73 WCPM 92% accuracy
71 WCPM to 116 WCPM
73 WCPM to 107 WCPM
82 WCPM to 99 WCPM
82 WCPM to 106 WCPM
84 WCPM to 114 WCPM
87 WCPM to 106 WCPM
98 WCPM to 124 WCPM

Targeted Literacy Cycles Tracking- Dibels Target Setting
Room: [] Term: 3 Teacher: []

School target:
Reading Fluency: All students to reach end of year expected standards for reading fluency through DIBELS screening.

Year level target: **Year 3**
By the end of Year 3, all students will be able to read Year 3 DIBELS benchmark with 80 Words Correct Per Minute (WCPM).
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Differentiated Targets

Students	By Week 8, Term 3 These students will be able to read a year 3 level DIBELS benchmark with an ORF of 55 WCPM	By Week 8, Term 3 These students will be able to read a year 3 level DIBELS benchmark with an ORF of 75 WCPM	By Week 8, Term 3 These students will be able to read a year 3 level DIBELS benchmark with an ORF of 80 WCPM
DS			
ES			
MS			
WS			

We will achieve this through the following evidence based approaches:

Universal screening:
All students will be screened for reading fluency using the DIBELS screening tool. This will be done at the end of each term. Students who are at risk of not meeting the benchmark will be identified and targeted for intervention.

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Thoughts/
Questions?

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Further listening

- Dibels 9th website- Center of teaching and learning University of Oregon
- Pattan- Using DIBELS 8th Edition Zones of Growth For Instructional Decision Making in a MTSS Framework
- Reading Fluency- Dr Jan Hasbrouck: Learning Difficulties Australia (2021)
<https://www.youtube.com/watch?v=CGzQ97hh3IU&t=1236s>


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Thank you for joining me!

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References


- Decodable Readers Australia decodable texts
- Department for Education and skills led by Rose, J. (2006). *Independent review of the teaching of early reading*. Retrieved 24th June from <https://education.org.uk/5551/2/report.pdf>
- Ehri, L.G. & Saltmarsh, J. (1995). Beginning readers outperform older disabled readers in learning to read words by sight. *Reading and Writing: An Interdisciplinary Journal*, 7(3), 295–326.
- Hasbrouck, J. (2019). *The Science of Fluency*. Retrieved 5th October, 2021, from <https://www.youtube.com/watch?v=3C7d3al0Js>
- Glean Education (2022). [Fuchs, Fuchs, Hosp., & Jenkins (SSR, 2001) in the OSPI + Glean Expert Webinar Series with Dr Jan Hasbrouck: October 20, 2022
- Gough, P.B. & Tunmer, W.E. (1986). 'Decoding, Reading, and Reading Disability.' *Remedial and Special Education*, 7, 6–10
- Hattie, J. & Zierer, K. (2018). *10 Mindframes for Visible Learning*. Routledge: Oxon
- Hasbrouck, J. & Lindo, G. (2017). 'An Update to Compiled ORF Norms'. [Technical Report No. 1702] Eugene, OR: Behavioral Research and Teaching, University of Oregon
- Konzo, D. (2011). Research into Practice- SA DECS. Retrieved on 27th October 2018, from https://www.eco.edu.au/_data/assets/pdf_file/003/66570/RA-DECS-Fluency-doc.pdf
- Lambert, S. (Host) [n.d.]. Myths and misconceptions about universal screening with Nancy Nelson, Season 1, Episode 10. [Audio podcast episode]. *Science of Reading: The Podcast, Amplify*. <https://amplify.com/resources/science-of-reading-the-podcast/season-1/episode-10-myths-and-misconceptions-about-universal-screening-with-nancy-nelson/>
- Martens, VEG & de Jong, P.F. (2008). Effects of repeated reading on the length effect in word and pseudoword reading. *Journal of Research in Reading*, 31(1), 40–54



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References

- Meadows Center: Progress Monitoring Line graph. <https://meadowscenter.org/resource/progress-monitoring-line-graph/>
- Muller, Y. (Host) [n.d.]. 5 misconceptions about RTI. Cohen-Gazith, K. Season 1, Episode 44. [Audiovisual podcast episode]. *Why Knowledge Matters: The Podcast*. <https://www.youtube.com/watch?v=rhnh1Lga-SU>
- Phonics Books UK: Tolsman series
- Prescott, J. (2003). *The Power of Readers Theatre*. Retrieved 5th October 21 from <https://www.scholastic.com/teachers/articles/teaching-content/power-reader2019s-theater/>
- Spears-Swerling, L. (2022) *Structured Literacy Interventions: Teaching Students with Reading Difficulties*. Grades K-6. Guilford Press: New York
- Texas Reading Agency (2002). *Guidelines for Examining Phonics and Word Recognition Programs*. Texas Reading Initiative. Retrieved 5th October 2021, from <https://www.readingrockets.org/article/fluency-instructional-guidelines-and-student-activities>
- University of Oregon, Center on Teaching & Learning (2019–2020). *DIBELS® 8th Edition: Dynamic Indicators of Basic Early Literacy Skills Technical Manual Supplement*. Eugene, OR
- University of Texas at Austin from: <https://utw.10207.utweb.utexas.edu/instructional-materials/progress-monitoring-line-graph>
- Wolf, M. & Katzir-Cohen, T. (2001). 'Reading Fluency and Its Interventions.' *Scientific Studies of Reading*, 5(3), 211–239



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LEARNING DIFFICULTIES AUSTRALIA

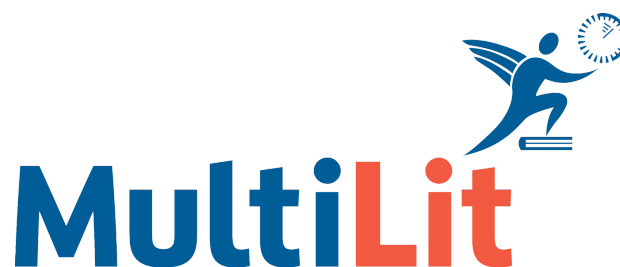
2023 RTI Conference Handouts

Sunday 29th Oct

**Session 4 - Identifying Common Types of
Reading Difficulties**

by Professor Emerita Louise Spear-Swerling

Thanking all our Gold Sponsors...



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Louise Spear-Swerling

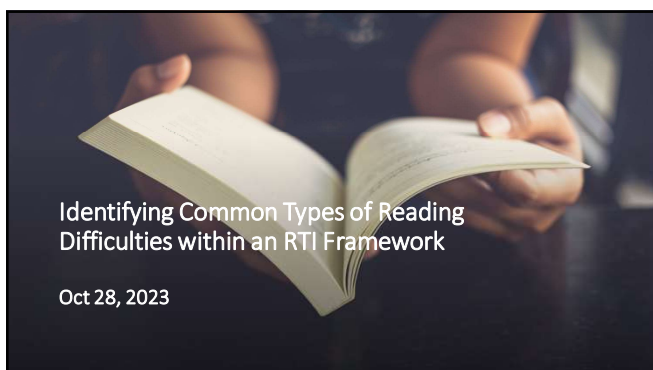
Bio:
Ph.D., Cognitive Psychology
Ms., Special Education, Concentration in Learning Disabilities

Taught in public schools as a special educator; prepared both general and special educators to teach reading for nearly four decades; has published empirical studies of teacher knowledge in reading, as well as four books on RTI, different types of reading difficulties, and Structured Literacy approaches to reading intervention. Her latest book is *The Structured Literacy Planner: Designing Interventions for Common Reading Difficulties, Grades 1 – 9*, to be published by Guilford Press in spring 2024.

Currently she continues to consult widely for K-12 school districts, mostly on students with severe or persistent literacy difficulties and how to help them.



2



Identifying Common Types of Reading Difficulties within an RTI Framework

Oct 28, 2023

3




“RTI is great IN THEORY.”

--Study participant responding to a question soliciting Connecticut teachers' opinions about RTI, circa 2012

4

Most teachers in the study:


- Had favorable views of RTI overall but noted many logistical challenges
- Lack of adequate support, instructional materials, time
- Most participants thought that RTI had clear benefits for the students



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Goals of this presentation:

- Review the features and advantages of RTI (MTSS) models
- Discuss common poor reader profiles (types of reading difficulties) and their value
- Explain some ways that the profiles can be identified within an RTI framework
- Provide some specific case examples of students with different profiles and different intervention needs



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Though often challenging for schools to implement well, RTI (MTSS) practices are currently the most promising way for schools to prevent or ameliorate reading difficulties.

(Brown-Chidsey & Steege, 2005; Fletcher, Lyon, Fuchs, & Barnes, 2019)



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Some key features of RTI (MTSS) approaches:

- Universal screening and progress monitoring
- Provision of opportunities for intervention as part of the general education system
- Greater levels of intensity for greater levels of student need
- Data-based decision-making, both at the level of individual children and at a systemic level
- Strong attention to the quality of Tier I (core general education) instruction

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Some reasons why RTI practices are important:

- Without attention to core instruction, the reading program may inadvertently manufacture reading problems in a subset of students
- Without universal screening, some students' problems will be overlooked until they are relatively severe and more difficult to address



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Why RTI practices are important (continued):

- If special education is seen as the only avenue for intervention, some poor readers will be inappropriately identified with disabilities simply to obtain extra help
- This increases the strain on limited resources for students with disabilities



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Reading problems are multifaceted, with 3 broad patterns of reading difficulties.

The 3 patterns can be understood in relation to the Simple View of Reading (SVR; Hoover & Gough, 1990).




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The SVR says that good reading comprehension depends on both:

- | | |
|---|--|
| <ul style="list-style-type: none"> • Good word recognition (including, e.g., phoneme awareness, letter-sound knowledge, phonological decoding skills, structural analysis, automatic word recognition) | <ul style="list-style-type: none"> • Good oral language comprehension (including, e.g., vocabulary knowledge, background knowledge, syntactic competence) |
|---|--|



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Three profiles (patterns) of reading difficulties are common:


- **Specific word recognition difficulties (SWRD)** – reading problem is specific to word reading/decoding
- **Specific reading comprehension difficulties (SRCD)** – reading problem is specific to language comp/reading comprehension
- **Mixed reading difficulties (MRD)** – reading problem involves both word reading and language comprehension

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PROFILE	Word Recognition/ Decoding	Vocabulary/Oral Language Comprehension
Specific Word Recognition Difficulties	Below average	Average or better
Specific Reading Comprehension Difficulties	Average or better	Below average
Mixed Reading Difficulties	Below average	Below average




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The patterns differ in relation to:

- Screening
- Progress-monitoring
- Intervention
- Assistive technology

(Aaron et al., 2008; Capin et al., 2021; Cardenas-Hagan, 2020; Catfs et al., 2012; Erickson, 2013; Fletcher et al., 2019; Lesaux & Kieffer, 2010; Norbury & Nation, 2011; Spear-Swerling, 2015)




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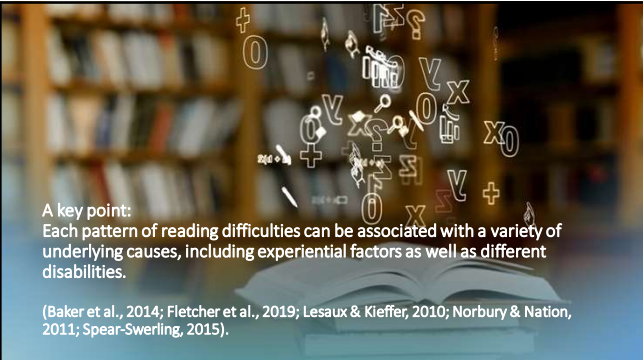


The patterns differ in relation to:

- Screening
- Progress-monitoring
- Intervention – identifying the pattern is a valuable starting point for planning interventions
- Assistive technology



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A key point:
Each pattern of reading difficulties can be associated with a variety of underlying causes, including experiential factors as well as different disabilities.

(Baker et al., 2014; Fletcher et al., 2019; Lesaux & Kieffer, 2010; Norbury & Nation, 2011; Spear-Swerling, 2015).

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Details about each pattern



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Students with specific word recognition difficulties (SWRD) have:

- At least average listening comprehension and oral vocabulary knowledge
- Poor word reading that often involves poor phonological skills (e.g., poor phoneme awareness [PA])
- Fluency problems involving inaccurate or non-automatic word reading
- Reading difficulties that usually emerge early (i.e. K-4)
- Poor reading comprehension and poor reading fluency related entirely to problems in word reading

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Students with SWRD benefit from:

- Highly systematic, explicit, synthetic-phonics interventions
- Intervention in phonemic awareness, if needed
- Applying their developing decoding skills in appropriate texts (decodables early on)
- Oral reading of text with a knowledgeable teacher who provides appropriate feedback
- Supplemental fluency intervention (if student reads slowly even at instructional level, e.g., Carnine, Silbert, Kame'enui, & Tarver, 2004)

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Screening and progress-monitoring assessments useful for SWRD:

- Phonemic awareness measures
- Measures of grapheme-phoneme (letter-sound) knowledge
- Curriculum-based measures (CBMs) for phonemic awareness, nonsense word reading, oral reading fluency (accuracy and rate)
- Spelling assessments with appropriate scoring (e.g., of error patterns)
- Criterion-referenced measures of decoding and spelling



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Example: William (Fall of Grade 3)



- Experienced reading difficulties beginning in kindergarten and Grade 1
- Early difficulties centered on learning letter sounds, phoneme blending, and decoding
- Phoneme awareness skills have improved greatly with intervention
- In Grade 3 William still has serious reading difficulties involving labored, inaccurate decoding, poor fluency, and poor spelling

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William: Grade 3 screening assessments

- DIBELS ORF, accuracy: below benchmark
- DIBELS ORF, rate: well below benchmark
- DIBELS Maze Reading Comprehension: well below benchmark
- **Remember** that Maze performance COULD be due to poor decoding/poor fluency and not poor language comprehension
- On a criterion-referenced decoding measure with different word categories, William mastered only closed (short vowel) and silent e categories
- Particular difficulty reading nonsense words



23

William: Grade 3 screening assessments

- DIBELS ORF, accuracy: **below benchmark**
- DIBELS ORF, rate: **well below benchmark**
- DIBELS Maze Reading Comprehension: **well below benchmark**
- **Remember** that Maze performance COULD be due to poor decoding/poor fluency and not poor language comprehension
- On a criterion-referenced decoding measure with different word categories, William mastered only closed (short vowel) and silent e categories **(below grade expectations)**
- Particular difficulty reading nonsense words



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William (Grade 3, continued)

- Has always done very well in teacher read-alouds, class discussions
- Reading comprehension is good if he can decode the text well
- Math (both untimed calculation skills and problem-solving) is solidly grade-appropriate
- Has good ideas and vocabulary for writing, but poor spelling creates a drain on his motivation to write



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Typical example of William's reading comprehension problems on an oral reading inventory:

- Grade 2 passage: Labored reading, many decoding errors (below instructional level)
- He misread the word *maple* in the sentence, *Jack found leaves from some maple trees during his walk.*
- When asked the question, "What kind of leaves did Jack find?" William could not answer
- When the passage was read aloud to him, William answered 100% of comprehension questions correctly



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William's standardized test scores (Grade 3):
(WIAT-III average range = 85 to 115)

- WIAT Word Reading = **83**
- WIAT Pseudoword Decoding = **78**
- WIAT ORF (accuracy) = **75**
- WIAT ORF (rate) = **70**
- WIAT Spelling = **80**
- WIAT Reading Comprehension = 89
- WIAT Receptive Vocabulary = 106
- WIAT Oral Discourse Comp = 101
- IRI Listening Comp = Grade 3
- IRI Reading Comp (ins level) = **Grade 1**



27

William's reading problem involves SWRD because:

- He has below-average word reading coupled with solidly average oral vocabulary and language comprehension
- His problems in reading comprehension and reading fluency are clearly associated with word reading and NOT with language comprehension



28

William's main intervention needs:

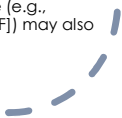
- Highly explicit, systematic synthetic phonics intervention, including spelling intervention
- Application of decoding skills in reading instructional-level, decodable text
- Oral text reading with a knowledgeable teacher who provides appropriate scaffolding (to ensure accuracy and build fluency)
- Additional fluency-building activities such as repeated readings of text
- Vocabulary and comprehension development can occur mostly in Tier 1 (general education), with accommodations as needed



29

Students with specific reading comprehension difficulties (SRCD):

- Have at least average word recognition and phonological skills
- Have reading comprehension problems that frequently involve listening comprehension and/or oral vocabulary knowledge
- Language often not low enough for eligibility for speech/language services
- Other factors besides language (e.g., attention, executive function [EF]) may also influence comprehension



30

Students with specific reading comprehension difficulties (SRCD) (continued):

- Have no history of early PA or decoding problems
- Any fluency problems are based in language (or attention/EF), not single word reading
- Reading comprehension difficulties often, though not always, emerge later in schooling (around Grade 4 and up)



31

Students with SRCD benefit from:

- Explicit intervention in the area(s) of comprehension in which they are weak (e.g., vocabulary, background knowledge, inferencing, perspective-taking)
- Integration of oral language interventions with reading comprehension interventions (e.g., Clarke et al., 2010)
- Texts appropriate to their language comprehension levels (esp. if far behind)
- If needed, explicit teaching of EF strategies in the context of reading and writing (e.g., explicit teaching about text structure, organizational strategies for writing; Cartwright, 2015)

32

Screening and progress-monitoring assessments useful for SRCD

- Oral language measures (e.g., oral vocabulary, listening comprehension)
- Reading comprehension CBMs (usually maze format)
- Tier 1 reading comprehension assessments
- Embedded comprehension checks (on curriculum tasks)



33

Example: Marcus (End of Grade 5)



- Marcus consistently met benchmark for PA screening assessments in Grades K – 1
- Consistently met ORF benchmarks in Grades 1 – 4, for both accuracy and rate
- Language comprehension and reading comprehension are weaknesses
- Similar difficulties in both listening and reading
- Difficulties most often involve vocabulary and background knowledge
- More reading comprehension difficulties as grade expectations increase

34

Marcus: Grade 5 screening assessments

- DIBELS ORF, accuracy: met benchmark
- DIBELS ORF, rate: met benchmark
- DIBELS Maze Reading Comprehension: well below benchmark
- On Maze, Marcus completed many items but made many errors
- Informal spelling screening: met benchmark
- Consistently represented sounds in words, in the correct sequence
- Spelling errors typically involved spelling generalizations (e.g., begining for beginning) or morphology (e.g., colinist for colonist) and were grade-appropriate
- Informal listening comprehension assessment: below grade expectations



35

Marcus: Grade 5 screening assessments

- DIBELS ORF, accuracy: met benchmark
- DIBELS ORF, rate: met benchmark
- DIBELS Maze Reading Comprehension: **well below benchmark**
- On Maze, Marcus completed many items but made a lot of errors
- Informal spelling screening: met benchmark
- Consistently represented sounds in words, in the correct sequence
- Spelling errors typically involved spelling generalizations (e.g., begining for beginning) or morphology (e.g., colinist for colonist) and were generally grade-appropriate
- Informal listening comprehension assessment: **below grade expectations**



36

Marcus's test scores (End Grade 5):

(WJ-IV average range = 90 to 110)

- WJ Word Identification = 95
- WJ Word Attack = 108
- WJ Spelling = 105
- WJ Sentence Reading Fluency = 94
- WJ Passage Comprehension = 80
- WJ Picture Vocabulary = 74
- WJ Oral Comprehension = 84
- IRI Listening Comp = Grade 3
- IRI Reading Comp (ins level) = Grade 3



37

Marcus's reading problem involves SRCD because:

- He has grade-appropriate word-reading skills combined with weaknesses in broad oral language/reading comprehension
- Within the area of language comprehension, vocabulary and background knowledge appear to be core weaknesses
- Reading comprehension difficulties are associated entirely with language comprehension, not inaccurate or nonautomatic word reading



38

Marcus's main intervention needs:

- Explicitly teach vocabulary and background knowledge needed for academic texts
- Indirect approaches to vocabulary instruction (i.e., use of context cues to determine meanings of words) also useful
- Use student-friendly definitions
- Use examples and non-examples of new vocabulary words
- Teach morphology to improve vocabulary knowledge, which will also benefit his word reading and spelling



39

Students with mixed reading difficulties (MRD)

- Have problems in both areas of the SVR, word recognition/decoding and oral language comprehension
- Language comprehension not necessarily low enough for S/L services
- As in SRCD, other variables such as attention and EF can also influence comprehension performance

40

Students with mixed reading difficulties (MRD, continued):

- Have poor reading comprehension that is only partly accounted for by poor decoding (e.g., poor comprehension may occur even in text the child decodes well)
- Fluency frequently is poor due to problems in both word reading and language comprehension
- Difficulties tend to emerge early in schooling (K-4) due to problems with decoding, but may persist even after remediation of decoding skills



41

Students with MRD benefit from:

- A combination of systematic phonics intervention and intervention involving the specific areas of comprehension in which they are weak
- Opportunities to apply their developing decoding skills in appropriate texts and with appropriate teacher feedback (like students with SWRD)
- Integration of oral language interventions with reading comprehension interventions (like students with SRCD)
- Instructional strategies for attention and EF, if these areas are relevant

42

On screening and progress-monitoring assessments, students with MRD will often show a combination of weaknesses in both phonological/word reading skills, and language comprehension.



43

Example: Sofia (End of Grade 4)



- Native Spanish speaker, immigrated to U.S. in Grade 1
- Conversational English is very good
- No history of language delay in Spanish
- Information about schooling prior to immigration is limited but there does not appear to be a history of literacy difficulties in Spanish
- Has received ESL services (not bilingual education); ESL now discontinued

44

Sofia (Grade 4, contd)

- Ability to read common words is good
- Sometimes has difficulty decoding long, complex words
- Vocabulary weaknesses in English impact her comprehension in classroom discussions as well as during reading
- Syntax errors in her writing are consistent with Spanish syntax (e.g., use of double negatives, flexible word order)
- Some language-related (e.g., vocabulary) difficulties in math problem solving



45

Sofia: Grade 4 screening assessments

- DIBELS ORF, accuracy: below benchmark
- DIBELS ORF, rate: below benchmark
- DIBELS Maze: well below benchmark
- Spelling screening assessment: below benchmark
- Made a variety of spelling errors, including phonological errors, primarily in long words
- Informal listening comprehension assessment: below grade expectations



46

Sofia: Grade 4 screening assessments

- DIBELS ORF, accuracy: below benchmark
- DIBELS ORF, rate: below benchmark
- DIBELS Maze: well below benchmark
- Spelling screening assessment: below benchmark
- Made a variety of spelling errors, including phonological errors, primarily in long words
- Informal listening comprehension assessment: below grade expectations



47

Sofia's test scores (End Grade 4):

(WIAT-III average range = 85 to 115)

- WIAT Word Reading = 83
- WIAT Pseudoword Decoding = 90
- WIAT Spelling = 84
- WIAT Oral Reading Fluency = 82
- WIAT Reading Comprehension = 76
- WIAT Receptive Vocabulary = 79
- WIAT Oral Discourse Comp = 84
- IRI Listening Comp = Grade 3
- IRI Reading Comp (ins level) = Grade 2



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Sofia has mixed reading difficulties (MRD) because:

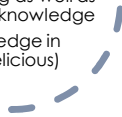
- She has difficulties in both word reading and oral vocabulary/oral language comprehension
- Good conversational English does not mean a student has the academic English needed to be successful in school
- Problems with English academic language and vocabulary are common in ELs
- Criterion-referenced testing supports teacher observations that her decoding problems mainly involve multisyllabic words
- Sofia is also responding well to intervention and does not appear to have a disability



49

What are Sofia's intervention needs in reading?

- Instruction in structural and morphemic analysis of multisyllabic words
- Teach her how to recognize common roots, prefixes, suffixes, and to apply this knowledge in reading words
- Integrate spelling and vocabulary instruction with word reading (e.g., *geo* = earth, *astro* = star)
- This can benefit her decoding as well as her spelling and vocabulary knowledge
- Try to exploit cognate knowledge in instruction (e.g., *delicioso*/delicious)



50

Sofia's intervention needs (continued)

- Directly teach other vocabulary words and academic language central to understanding texts used at her level
- Address confusions with English syntax and grammar in writing
- Anticipate and address possible problems with English syntax and grammar in reading (e.g., use of *-ing* form as a subject as in *Smoking is bad for you* vs. *To smoke is bad for you*; omissions of *that* as a relative pronoun as in *The book he read was excellent*); see Swan & Smith, 2001



51

In screening and progress monitoring, also consider whether a student has indicators of risk such as:

- A family history of language/learning disabilities or ADHD
- A developmental history of language delay
- A lengthy history of prior intervention (e.g., a student who repeatedly appears to have caught up to peers, only to fall behind again later)

(Zipoli & Merritt, 2017)



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Summing up

- RTI (MTSS) practices are a promising way to prevent or ameliorate reading problems
- Key RTI practices include universal screening, early identification, provision of intervention as part of the general education system, and use of data to improve core instruction as well as individual student interventions
- Common types (profiles) of reading difficulties involve specific word recognition difficulties (SWRD), specific reading comprehension difficulties (SRCD), and mixed reading difficulties (MRD)
- Identification of these common profiles provides a valuable starting point for planning reading interventions in the context of RTI practices

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Thank you!

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References

- Aaron, P. G., Joshi, M., Gooden, E., & Benjmin, K. (2008). Diagnosis and treatment of reading disabilities based on the component model of reading: An alternative to the discrepancy model. *LD Journal of Learning Disabilities*, 41, 43-64.
- Baker, S., Lesaux, N., Joyner, M., Marino, J., Proctor, C. P., Morris, J., Gersten, R., Hammond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Garchar, B. (2014). Teaching academic content and literacy to English learners in elementary and middle school (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: https://ies.ed.gov/ncee/wwc/publications_reviews.aspx.
- Brown-Chidsey, R., & Steege, M. (2005). *Response to intervention: Principles and strategies for effective practice*. New York: Guilford.
- Coplin, P., Cho, E., Miciak, J., Roberts, G., & Vaughn, S. (2021). Scanning the reading and cognitive profiles of students with significant reading comprehension difficulties. *Learning Disabilities Quarterly*, 44, 183-196.
- Cardenas-Hagan, E. (2020). Teaching literacy skills to English learners. In E. Cardenas-Hagan (editor), *Literacy foundations for English learners: A comprehensive guide to evidence-based instruction* (pp. 3-30). Baltimore, MD: Brookes Publishing.
- Carline, D. W., Silbert, J., Kame'enui, E. J., & Tarver, S. G. (2009). *Direct instruction reading*, 5th edition. Upper Saddle River, NJ: Pearson.
- Carwright, K. B. (2015). *Executive skills and reading comprehension: A guide for educators*. New York: Guilford Press.
- Catts, H.W., Compton, D.L., Tomblin, J.B., & Bridges, M.S. (2012). Prevalence and nature of late-emerging poor readers. *Journal of Educational Psychology*, 104, 146-161.
- Clarke, P. J., Truelove, E., Hulme, C., & Snowling, M. J. (2014). *Developing reading comprehension*. West Sussex, UK: John Wiley & Sons.
- Erickson, K. (2013). Reading and assistive technology: Why the reader's profile matters. *Perspectives on Language and Literacy*, 39, 11-14.
- Fletcher, J. M., Lyon, G. R., Fuchs, L. S., & Barnes, M. A. (2019). *Learning disabilities: From identification to intervention*, 2nd edition. New York: Guilford Press.
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing: An Interdisciplinary Journal*, 2, 127-160.
- Lesaux, N. K., & Kieffer, M. J. (2012). Exploring sources of reading comprehension difficulties among language minority learners and their classmates in early adolescence. *American Educational Research Journal*, 47, 399-432.
- Norbury, C., & Nation, K. (2011). Understanding variability in reading comprehension in adolescents with autism spectrum disorders: Interactions with language status and decoding skill. *Scientific Studies of Reading*, 15, 191-210.
- Spear-Swerling, L. (2015). *The power of RTI and reading profiles: A blueprint for solving reading problems*. Baltimore, MD: Brookes Publishing.
- Swan, M., & Smith, S. (Eds.). (2001). *Learner English: A teacher's guide to interference and other problems*, 2nd edition. Cambridge, UK: Cambridge University Press.
- Tzokas, R. P., & Merritt, D. D. (2017). Risk of reading difficulty among students with a history of speech or language impairment: Implications for Schools' Support Teams. *Preventing School Failure: Alternative Education for Children and Youth*, 61, 93-103.



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Session 5 - Designing Tier 3 Interventions

by Dr Alison Madelaine

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1

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Bio: For many years, Alison was a lecturer in Special Education at Macquarie University Special Education Centre. She has taught in schools in Australia and the United States and acted as a consultant to MultiLit Projects in New South Wales and Queensland. She is currently the Clinical Director of the MultiLit Literacy Centres where she oversees interventions in reading, writing and spelling.



2

Designing Tier 3 Interventions for Students with Learning Difficulties

3

What is meant by 'Tier 3'?

How is Tier 3 different from Tier 2?

- Intensity of instruction
- Group size
- Person delivering instruction
- Frequency and duration of instruction
- Assessment



4

Instructional Considerations

- What?
- How?



5

Instructional Considerations: What?

- Which tests are needed to assess students who don't respond to Tier 2 instruction?
- Will Tier 3 instruction be different from Tier 2?
- Will a commercial/standardised program be used?
- Will a more individualised/clinical approach be taken?



6

Instructional Considerations: How?

- Who will plan and deliver the intervention?
- Group size: 1:1 instruction or small groups of 2 or 3?
- Frequency: Daily?
- Lesson Duration: How long will Tier 3 intervention lessons last?
- Scheduling considerations: When will Tier 3 intervention happen during the day?
- Instructional intensity: how has this been increased?



7

Assessment

- Norm-referenced tests
- Curriculum-based assessment
 - Teacher designed tests
 - Progress monitoring tests eg. curriculum-based measurement



8

An example of a test battery for Tier 3 intervention in reading and spelling

- Neale Analysis of Reading Ability – Revised (Reading Accuracy and Reading Comprehension Subtests)
- Martin and Pratt Nonword Reading Test
- South Australian Spelling Test
- Wheldall Assessment of Reading Passages (WARP)
- Peabody Picture Vocabulary Test

- WARP for regular progress monitoring



9

Research on Tier 3 Interventions

- Large body of research on effective interventions in different academic areas.
- Much less research documenting the progress of students who have been through Tiers 1 and 2 and are being provided with a Tier 3 intervention.
- More likely to be small n/single subject designs due to very small sample sizes



10

1. Reading

Sanchez & O'Connor (2015)

Aim: To expand an implementation of RTI to Tier 3

Participants: 8 students in Years 3 & 4

Measures: Woodcock Reading Mastery Tests – Revised

Gray Oral Reading Test

DIBELS Oral Reading Fluency

Word Identification Fluency



11

1. Reading

Intervention: 1:1 3 times per week for 40 minutes

Delivered by graduate students

Researcher-designed instruction in letter patterns, multi-syllabic words, sight word practice, reading aloud

Results: On average, the group made gains on all measures.

Students gained an average of 30 wcpm in 8 weeks



12

2. Maths

Dennis (2015)

Aim: What are the effects of a Tier 3 intervention on the mathematics performance of students with inadequate responses to the Tier 2 intervention?

Participants: 3 students in Year 2

Measures:

Texas Early Mathematics Inventories-Aim Checks (TEMI-AC)
AIMSweb Computational CBM



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2. Maths

Intervention: Explicit and systematic maths intervention which was the same as tier 2 (with a focus on numerical order, quantity comparison, addition and subtraction facts, place value & multidigit addition and subtraction)

1:1

More opportunities to respond

More prompts and student verbalisation

More time spent on daily lessons

Results: All 3 students made gains immediately after the intervention began.

2/3 students showed steady improvement.

Overall, a high PND (percentage of non-overlapping data) indicated that the intervention was a success.



14

3. Writing

Walker et al. (2005)

Aim: What are the effects of the Expressive Writing Program on the acquisition and maintenance of narrative writing skills of high school students with learning disabilities?

Participants: N=3, 14-16 years old with learning disabilities

Measures:

Test of Written Language-3

Correct Word Sequences (CWS) on narrative writing assignments



15

3. Writing

Intervention:

Expressive Writing 1 (Engelman & Silbert, 2005)

Small group

Daily intervention

Results: Overall TOWL quotient scores increased for all 3 students

Correct letter sequence scores increased for all 3 students (during intervention and maintenance phases) with a high PND.



16

References

Dennis, M. S. (2015). Effects of Tier 2 and Tier 3 Mathematics Interventions for Second Graders with Mathematics Difficulties. *Learning Disabilities Research & Practice, 30*(1), 29–42. <https://doi.org/10.1111/ldrp.12051>

Engelmann, S., & Silbert, J. (2005). *Expressive Writing 1*. SRA/McGraw-Hill.

Sanchez, V. M., & O'Connor, R. E. (2015). Building Tier 3 Intervention for Long-Term Slow Growers in Grades 3–4: A Pilot Study. *Learning Disabilities Research & Practice, 30*(4), 171–181. <https://doi.org/10.1111/ldrp.12085>

Walker, B., Shippen, M. E., Alberto, P., Houchins, D. E., & Cihak, D. F. (2005). Using the Expressive Writing Program to Improve the Writing Skills of High School Students with Learning Disabilities. *Learning Disabilities Research and Practice, 20*(3), 175–183. <https://doi.org/10.1111/j.1540-5826.2005.00131.x>



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Questions?

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