

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.



www.ldaustralia.org



enquiries@ldaustralia.org



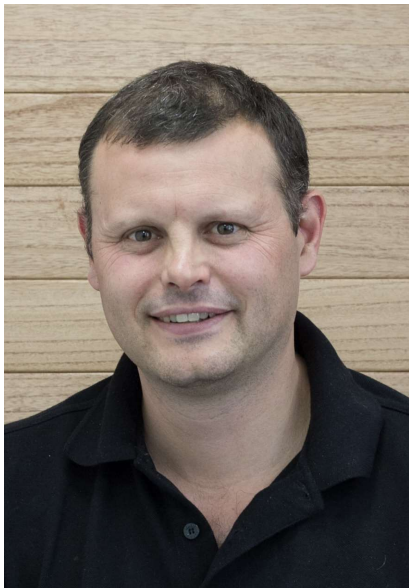
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[@LD_Australia](https://twitter.com/LD_Australia)



Supporting mental health in the context of language and literacy difficulties.



Professor Mark Boyes



Dr Lizz Hill

“I have blond hair, Blue eyes and an infectious smile. But under the surface I live in a turmoil. Words look like swigles and writing stories is a disaster area ... Teachers said I was clever but just didn’t try. Other boys made fun of me and so I became lonely and misshapen”

(Alexander, 9 years)



Language and Mental Health: Pop Quiz

- **Approximately, what % of young people experience persistent and pervasive difficulties with language and literacy?**
 - 10-15%
 - 1-5%
 - 20-30%
 - 60-75%



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Language and Mental Health: Pop Quiz

- Approximately, what % of children with emotional and/behavioural problems have significant unidentified communication needs?
 - $\approx 10\%$
 - $\approx 80\%$
 - $\approx 50\%$
 - $\approx 5\%$



Language and Mental Health: Pop Quiz

- **Approximately, what % of children with diagnosed language and communication needs experience emotional and/or behavioural disorders?**
 - **≈ 60%**
 - **10%**
 - **3%**
 - **≈ 80%**



Language and Mental Health: Pop Quiz

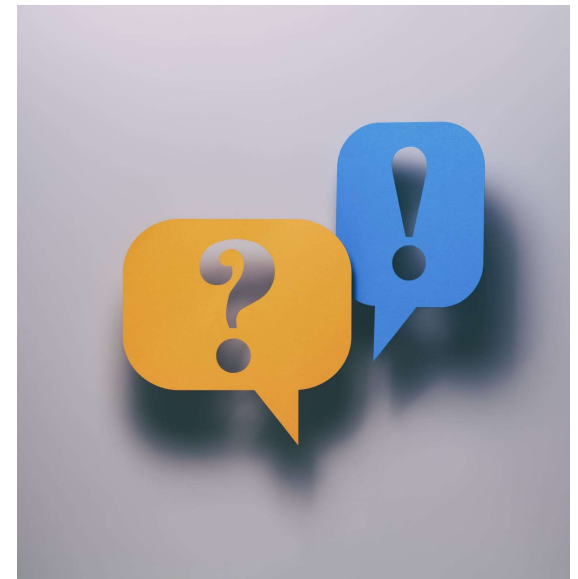
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 - ≈ 80%



Key concepts: Communication

'Communication' is:

- Not uniquely human
- An active process of encoding, transmitting, and decoding a message
- A system of different methods such as speaking, reading, writing, gesture, expression...



Key concepts: Language

'Language' is:

- ...complex
- **Made up of 'receptive' (understanding) and 'expressive' (producing)**
- **Use of symbols to communicate and receive messages**
 - Sounds, letters, drawings, gestures
- **A rule-governed system:**
 - Rules for sound/letter, word, and sentence combinations; rules for meaning

Rules are language *dependent* meaning they vary across languages and dialects

(language is not speech)



The role of language in communication

Receptive language skills:

- Instructions
- Indirect requests, questions, or statements
- Direct requests
- Written information
- Understanding words for thoughts and feelings.

Expressive language skills :

- Word finding
- Clarity of expression
- Ordering of ideas
- Including relevant information: who, when, where, why, how, what...
- Difficulty describing thoughts and feelings



Considering language and mental health...

Social Interaction

Language supports peer relationships and social interaction:

- Knowledge of 'rules' of interaction (e.g., conversation)
- Establishing common ground and shared interests
- Using humour, sarcasm, idioms, and non-verbal language
- Providing sufficient depth, detail, and relevance of information
- Identifying and repairing communication breakdown and misunderstanding

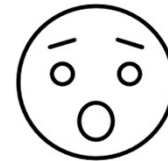
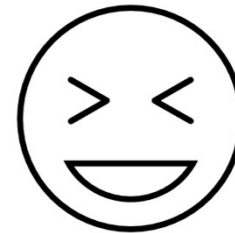


Considering language and mental health...

Emotion Regulation

Language is critical for emotional regulation

- Identifying emotion
- Understanding emotion
- Describing emotion using correct vocabulary
- Understanding *why* or *how* you feel a particular way
- Identifying and interpreting *others'* emotions



Considering language and mental health...

Academic engagement

Language underpins academic success

- Engaging with academic content
- Attending to information
- Demonstrating knowledge
- Participating in class discussions
- Asking for help
- Accessing and completing homework
- Forming links between and within subjects



Considering co-occurring difficulties...

Memory, attention, and concentration

- Children with language / communication difficulties often have co-occurring poor working memory, reduced attentional capacity, and difficulties with sustained concentration
 - Prone to distractions
 - Require repetition of information or requests
 - May not have the language to request
 - Difficulty engaging in the classroom
 - Attending in conversation
 - 'Keeping up'
 - May not have the skills to repair breakdown



Negative behaviours in children with oral language difficulties...

I know you don't understand me and its making me very anxious



I can't explain what I mean



This work is too hard for me



I'm in a fight again and I don't know how to make it better



I don't understand what you want me to do



I can't understand my feelings or do anything about them



Common Language and Literacy Disorders

- Developmental language disorder (DLD; previously known as Specific Language Impairment)
- Autism Spectrum Disorder
- Specific Learning Disorders:
 - Dyslexia
 - Dysgraphia
 - Dyscalculia
- Fluency disorders (stuttering, stammering)
- Articulation and phonological disorders (e.g., Apraxia of speech, speech sound disorder)
- Language / literacy difficulties related to intellectual or other neurodevelopmental disabilities or difficulties



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Links between Language and Mental Health

- **Well-established link between language and literacy difficulties / disorder and:**
 - Conduct problems
 - Socio-emotional difficulties
 - Externalising behaviour
 - Internalising behaviour
 - Suicidal ideation
 - Poor parental / carer mental health

Links are pervasive and persist into late adolescence and adulthood...

(SPA, 2018)



Oral Language Difficulties & Mental Health

We acknowledge the contribution of **Associate Professor Suze Leitao** to the development of this content



Developmental Language Disorder

- Two children in every Australian classroom have DLD
- Emerges in early childhood
- DLD has been known as: expressive-receptive language disorder, speech-language disorder, specific language impairment
- Not associated with: a lack of exposure to language, neurodevelopmental difficulties, intellectual disability, hearing problems, or cognitive impairment
- A 'hidden' difficulty
- Often mistaken for a problem with behaviour or attention
- It's a lifelong condition that has persistent impact on emotional wellbeing, social relationships, academic outcomes, vocational opportunities



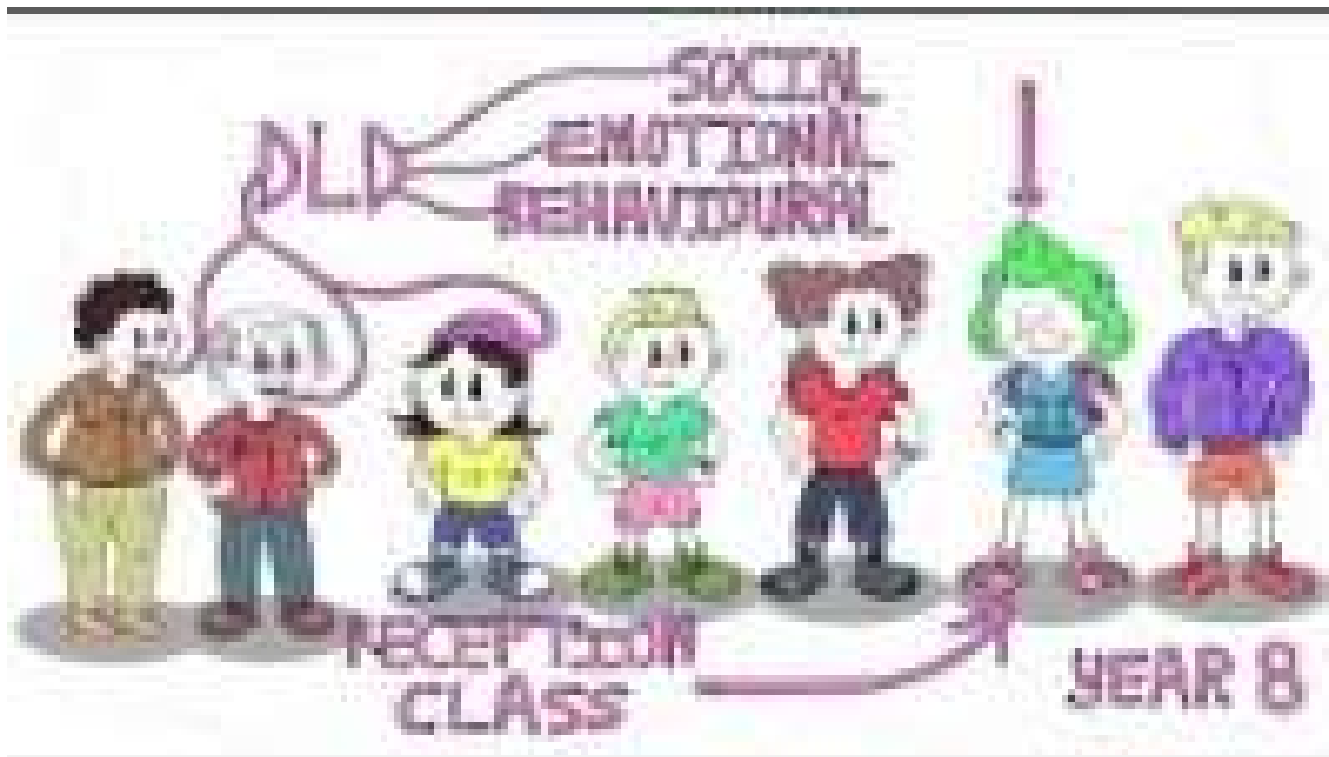
Signs of DLD

A child or adolescent with DLD is likely to:

- struggle to find the words to express ideas
- have trouble organising sentences, having conversations or telling a story
- find it hard to understand words, follow instructions or answer questions
- not remember what someone has said
- have difficulty paying attention
- ...and, have difficulty reading and writing



DLD and Mental Health



<https://www.youtube.com/watch?v=-orJLnCgGJw>



DLD and Mental Health

- **The rate of problem behaviours tends to increase as the child grows older (Curtis et al., 2018).**
- **Risk factors:**
 - More severe language difficulties
 - Family history of poor mental health
 - Poor peer relationships
- **Protective factors include:**
 - A hopeful outlook
 - A strong sense of agency / self-efficacy
 - Positive relationships with peers and adults (Lyons et al., 2018)



DLD and Mental Health: Advocacy!

Norbury, C., Griffiths, S., Goh, S. K. Y., Boyes, M., Hill, E., & Viding, E. (2024). Developmental language disorder: a hidden condition. *The Lancet Child & Adolescent Health*.

Comment

Developmental language disorder: a hidden condition

Developmental language disorder (DLD) is the consensus term for neurodivergence characterised by challenges with speaking and listening that restrict communication. Difficulties with speaking might manifest as delayed early language milestones, saying less overall, and use of simple sentences with reduced vocabulary, which are difficult for listeners trying to follow the child's intended meaning. Problems with understanding can appear as not listening, not following directions, misunderstanding what others say, or rapidly forgetting what has been said. The term DLD was agreed by individuals and families with lived

affected individuals and society. Many young people with DLD experience increasing anxiety as they approach adolescence, due to the increasing language demands of the school curriculum and peer relationships (figure). They describe the constant struggle of trying to keep up with lessons and conversation, often trying to mask their difficulties by nodding and agreeing even when they don't understand, or withdrawing from social situations in which they might be exposed, including school.⁶

Prospective longitudinal studies indicate that children identified as having DLD have a 1.8–2.3-fold higher



Lancet Child Adolesc Health 2024

Published Online

February 5, 2024

[https://doi.org/10.1016/S2352-4642\(24\)00016-6](https://doi.org/10.1016/S2352-4642(24)00016-6)



Mental health and LD: Parent perspectives

Access and/or engagement in mental health support impacted by:

- (1) a poor availability of mental health care services/professionals;
- (2) a lack of professional/specialist knowledge about language, literacy, and mental health
- (3) the inaccessibility of traditional methods of therapy (e.g., one-on-one talk therapy);
- (4) funding constraints
- (5) Children are already inundated with language-related appointments (e.g., speech pathologist)

“I feel like every second day we were in therapy and I'm like poor kids seeing more office spaces than he does outside.” – Parent 3



- ***“I want someone [MH professional] who actually knows DLD ... I don't want to have to go through explaining it and have to educate them on it before they look at these concerns, and I really want to sort of separate, okay, this has something to do with her language, or no, this has something to do with what she's seen at home...Because I do have two elements here which I'm not sure which one relates to or if it's a combination of both. So, I really, I'm seeking out that psychologist that knows that because that's valuable really at this stage.” – Parent 1***



Language difficulties & MH

Secured funding to explore modifiable third factors associated with mental health in children with language disorder

AND

Co-design accessible mental health program tailored to their preferences and priorities

[Want to get involved? Scan QR code to enter your details:](#)



Reading Difficulties & Mental Health



C “I realised I actually wasn’t dumb”

P “she would *cry every night*, she would *lack confidence in anything that she did*. (H)er whole *world centred around trying to find something that she was good at...* So she’d put a lot of focus and effort on that...”

C “... the hardest part of my life I reckon so far ... so *he was bullying me* at the time when I was finding out I was dyslexic or not”.

P “... XX *refuted the diagnosis* of the XX, basically just said, “No, look, this is – I don’t agree with this. He’s not dyslexic.” He was actually sent out of Special Ed, back into the classroom. “

P “(I)ronically, *you don’t get extra funding for a diagnosis of dyslexia but hey, you get it for depression and anxiety*. So you’ve got to get so bad that you do end up with *significant mental health problems before you can actually get extra funding*, well the school can get extra funding.”

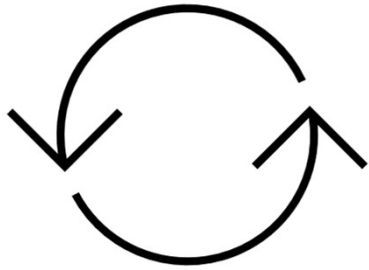


Dyslexia

Approximately 10-15% of young people have dyslexia. These children have difficulty:

- Learning relationships between letters and sounds
- Blending sounds to decode words (guessing)
- Reading quickly, reading out loud
- Understanding what they've read
- With working memory





Reading and Externalising Behaviour

- ADHD and Behaviour
 - 15-40% of children with reading difficulties meet criteria for ADHD
 - Poor readers show elevated levels of attentional problems,
 - More inattention, less hyperactivity
 - Reading difficulties clearly linked to conduct and behavioural problems into adulthood
 - Evidence suggests inattentiveness accounts this relationship
 - Relationship between reading and difficulties with attention is complex
- ... reading difficulties do not reflect *only* problems with attention



Reading and Internalising Symptoms

- **Consistent associations between reading difficulties and symptoms of anxiety and depression in children and adolescents**
- **Both in terms of raw questionnaire scores and the likelihood of scoring above “clinical threshold”**
 - Inconsistent for parent/teacher report...harder to ‘see’?
- **Unlike externalising, not due to attentional problems**
- **Associations between reading and anxiety are not attributable to shared family risk, but are specifically linked to reading difficulties**



Reading and Child Mental Health

Consistent links between reading difficulties and externalising and internalising symptoms in children and into adulthood



..... but **why** do these links exist?



Risk and Protective Factors: Broader literature

The broader psychology literature gives us some clues

- Generally, child mental health associated with:
 - Low self-esteem
 - Peer relationship problems
 - Bullying victimisation
 - Difficulties in emotion regulation
 - Ineffective coping strategies
 - Poor social skills
 - Academic failure
 - Poor school connection
 - Difficulties with teacher relationships
 - Family and sibling relationships



Shared by children with dyslexia

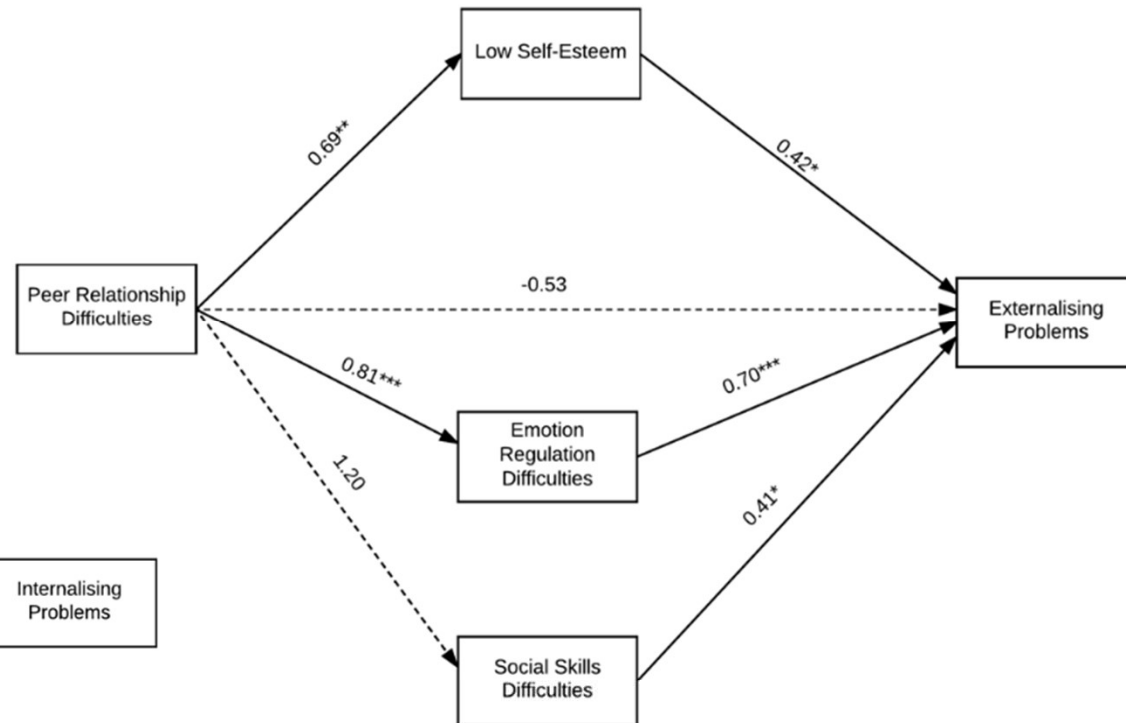
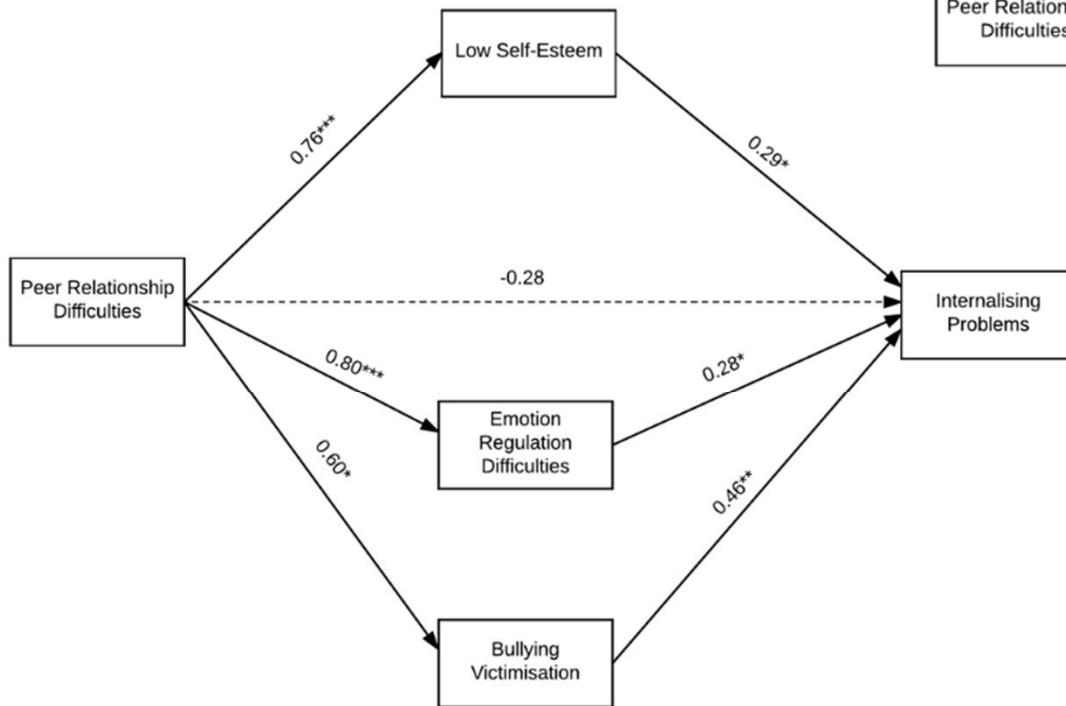


Risk and Protective Factors: Case files

- Collaboration with [Dyslexia-SPELD Foundation](#) extracted data from 450 casefiles
 - Literacy skills, cognitive abilities
 - Behavioural and socio-emotional development
- Relatively high rates of difficulties
 - Low self-esteem ~ 25%
 - Behavioural problems ~ 25%
 - Emotional problems ~ 10%
- Majority of children had not experienced any difficulties



Risk and protective factors: Case files



Risk and Protective Factors: Summary

For children with dyslexia, internalising and externalising symptoms associated with:

- Self-esteem
 - Bullying
 - Emotional regulation
 - Social skills and peer relationships
- ... could be targets for intervention!



Clever Kids: Overview

- Nine weekly sessions
- Focus on **self-acceptance**, **positive coping strategies**, **goal setting**, **perseverance** and **help-seeking behaviours**
- Combination of **explicit instruction**, **modelling**, **role-play** and ongoing **revision** of the concepts being taught



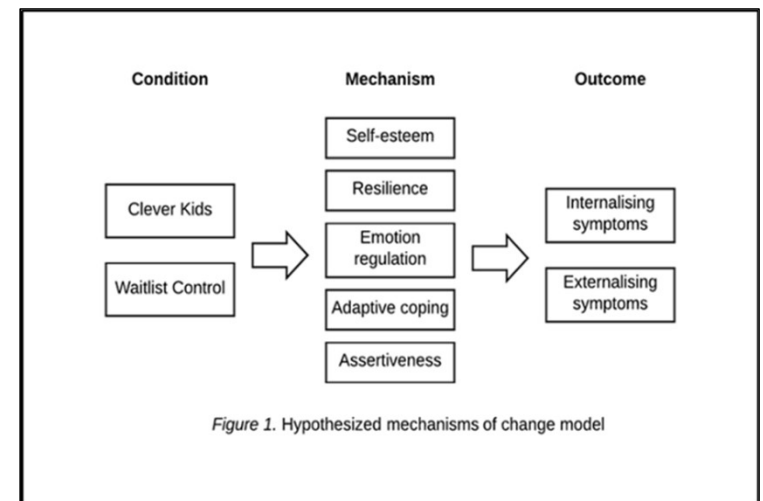
Clever Kids: Evaluation

Piloted the feasibility, efficacy, and acceptability of 'Clever Kids'

Feasibility - Recruiting and maintaining participants in a RCT

Efficacy – Improvements in targeted mechanisms, internalising and externalising symptoms

Acceptability – Enjoyment and perceived utility, detailed qualitative feedback



Clever Kids: Evaluation

Mixed-methods pilot evaluation

- Small ($n = 40$) randomised-controlled trial (waitlist control)
 - Assessments at 3 time points
 - Well-validated and widely used measures of constructs of interest
 - Perceived enjoyment and usefulness of each session
 - Monitored homework completion rates
- No cost to attend program
 - Reimbursement: Children received \$50 voucher
- Focus group ($n = 5$) with children who completed the program
 - Reimbursement: Children received \$20 voucher



Clever Kids: Feasibility

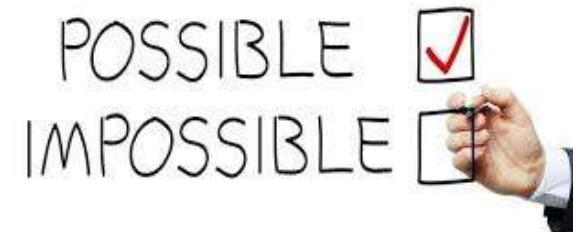
Achieved target sample by emailing parents in DSF database

24% response rate

Retention throughout the trial was excellent

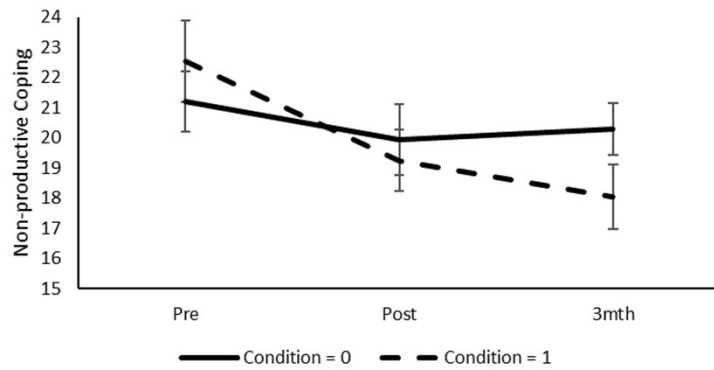
No difficulties with randomisation

Excellent program attendance

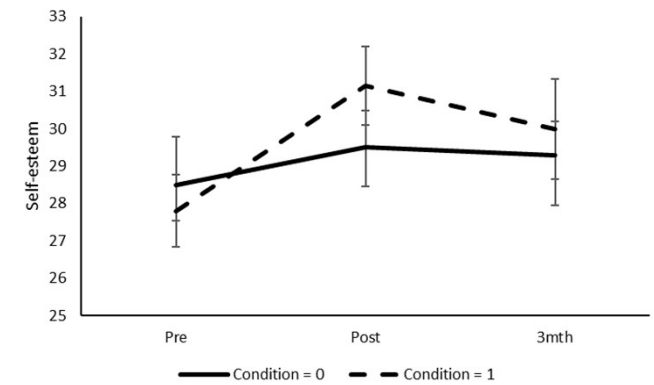


Clever Kids: Efficacy

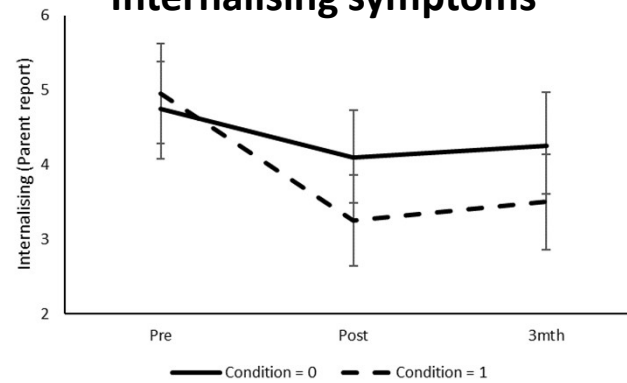
Non-productive coping



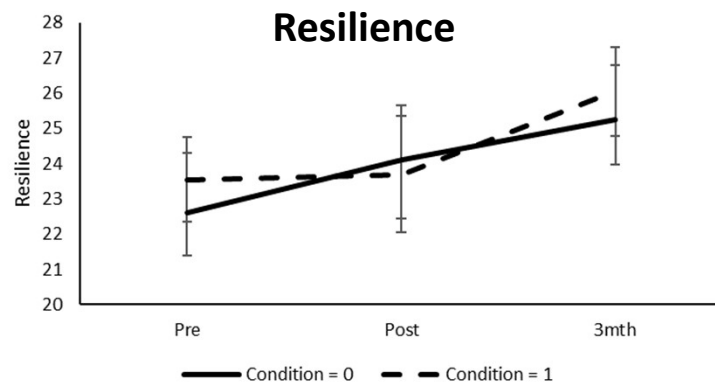
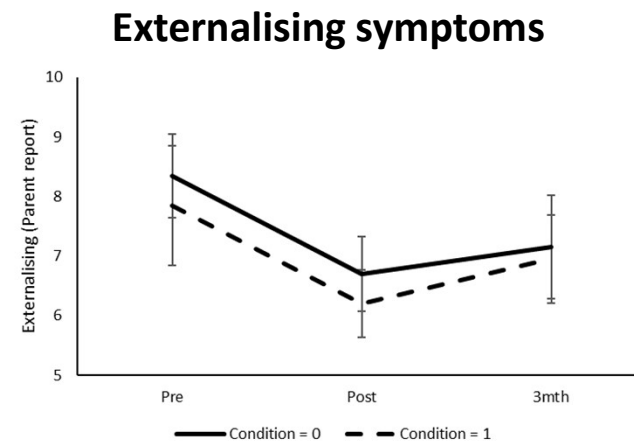
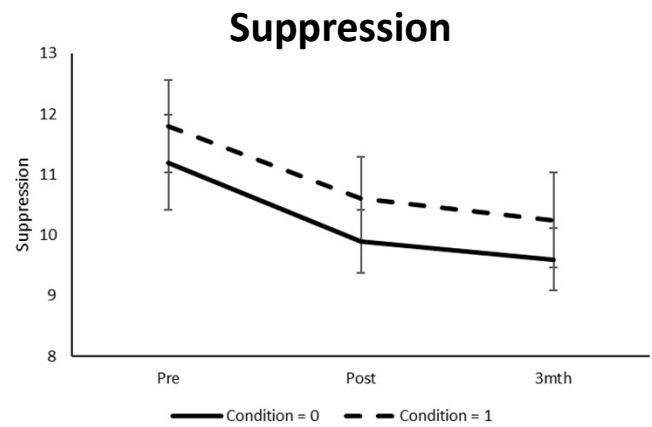
Self-esteem



Internalising symptoms



Clever Kids: Efficacy



Clever Kids: Acceptability

- All sessions rated as enjoyable and useful
- Homework completion rates ~61% (but variable)

- **Liked**

- Meeting other children struggling with reading
- Drawing, movement, bodily-focused activities



- **Did not like**

- Sitting at tables, reading, writing
- Homework



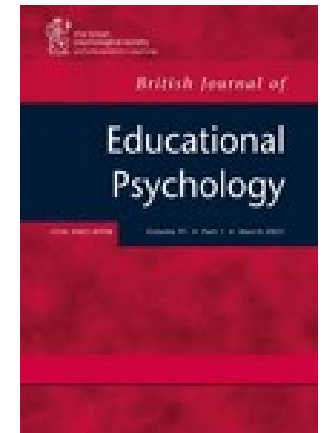
Clever Kids: Limitations

- Free program attendance and participant reimbursement
- Underpowered? Need for larger trial
- 'Clever Kids' does not include a literacy support component
- Problem-solving, assertiveness, help-seeking ... ?

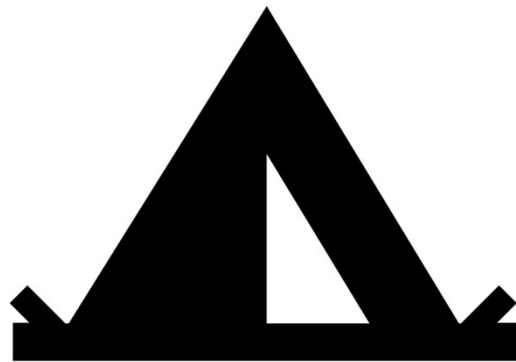


Clever Kids: Conclusions

- **Clear parent demand for programs addressing emotional wellbeing**
- **Feasibility of further evaluation in larger trials**
- **Improved coping skills**
 - Additional improvements in socio-emotional wellbeing?
- **Acceptable to children and families**
 - Shorter sessions or more breaks
 - Further reducing activities involving reading/writing



Clever Kids...The Camp!



Implications for Practice



Implications for Practice

Approximately 7% to 15% of young people will have a diagnosed language or literacy difficulty (e.g., DLD, dyslexia)

We need to think about:

- The impact of language / literacy on mental health, and vice versa
- How we can accommodate for language and literacy difficulties in the classroom
- The impact of language and communication difficulties on insight and self-awareness



- **Language demands of mental health support?**

- *"What brought you here?"*
- *"What happened?"*
- *"How does that make you feel?"*
- *"Why do you feel that way?"*
- *"How would your friend feel about that?"*



Support & scaffold communication

- Pictures, gesture, and demonstrations to support understanding
- Sit face-to-face
- Use simple language
- Reduce speech rate (but not too much)
- Use 'active tense'
- Allow plenty of time to process and respond
- Use short instructions, repeat, and explain
- Use 'Teach Back' strategies to check understanding



feelings

Happy	feeling good	lonely	sad
scared	confused	worried	nervous
embarrassed	irritated	cross	angry
hopeless	annoyed	feeling bad	feel like crying

Emotion

WHO?

WHERE?

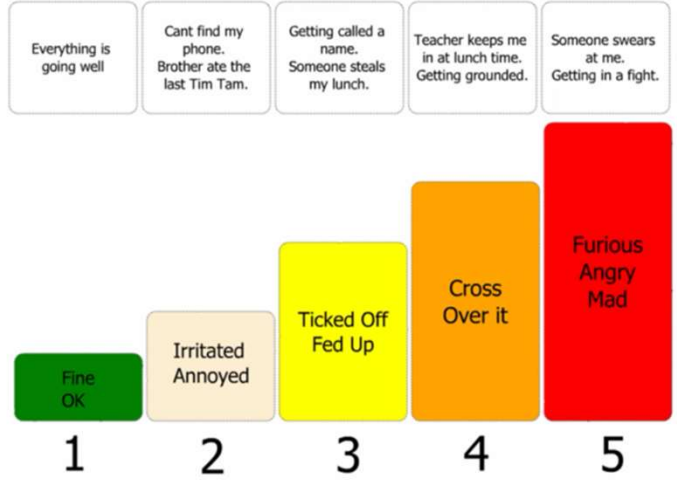
WHEN?

What happened *before?*

What happened?
I felt ____ when...

What happened *after?*

Pissed Off Scales



my thoughts and feelings diary

day	what happened?	what did I do?	how did I feel?
M			
Tu			
W			
Th			
F			
Sa			
Su			



Collaboration is key

- **Enquire about language and literacy development**
 - Parent report
 - Teacher report
- **Enquire about history of speech pathology**
- **Are they seeing a SP? Consider collaborating on language and literacy requirements of MH support (with consent)**
 - Vocabulary, narrative storytelling, conversation skills
- **Know when to refer on...**



Resources

- Annotated bibliography
- Raising Awareness of DLD (RADLD): <https://radld.org/>
- Dyslexia-SPELD Foundation: <https://dsf.net.au/>
- Speech Pathology Australia
 - What is a speech pathologist
[https://www.speechpathologyaustralia.org.au/SPAweb/Resources for the Public/What is a Speech Pathologist/SPAweb/Resources for the Public/What is a Speech Pathologist/What is a Speech Pathologist.aspx?hkey=7e5fb9f8-c226-4db6-934c-0c3987214d7a](https://www.speechpathologyaustralia.org.au/SPAweb/Resources%20for%20the%20Public/What%20is%20a%20Speech%20Pathologist/SPAweb/Resources%20for%20the%20Public/What%20is%20a%20Speech%20Pathologist/What%20is%20a%20Speech%20Pathologist.aspx?hkey=7e5fb9f8-c226-4db6-934c-0c3987214d7a)
 - Find a speech pathologist
[https://www.speechpathologyaustralia.org.au/SPAweb/Resources for the Public/Find a Speech Pathologist/SPAweb/Resources for the Pubic/Find a Speech Pathologist/Find a Speech Pathologist.aspx?hkey=0b04c883-80b2-43e7-9298-7e5db5c75197](https://www.speechpathologyaustralia.org.au/SPAweb/Resources%20for%20the%20Public/Find%20a%20Speech%20Pathologist/SPAweb/Resources%20for%20the%20Public/Find%20a%20Speech%20Pathologist/Find%20a%20Speech%20Pathologist.aspx?hkey=0b04c883-80b2-43e7-9298-7e5db5c75197)
- Teach Back: <http://teachback.org/>
- 'Participics' <https://portal.peeristics.com/public/participics>



Where to next?

- Transition to high school study (currently underway) – Flyer attached, please share!
- Larger trial of Clever Kids (currently underway)
- Mental health program for children with oral language difficulties (currently underway)
- Parent mental health?
- Collaborating on trials of school-wide interventions?
- Transition to university?

- What do you think should be priorities?

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elizabeth.hill@curtin.edu.au

Stay up to date with our work



SUPPORT RESEARCH ON CHILD WELLBEING!

Do you know a child in year 6 and their caregiver?

Scan the QR code to register interest in helping researchers investigate language, reading, and mental health in the transition to high school.

COMPLETE A SURVEY AND LANGUAGE AND READING TASKS, ONLINE OR IN-PERSON FOR 1.5 HOURS.
ALL KIDS GET A GIFT VOUCHER!

This research has been approved by the human research ethics committees of: Curtin University (HREC2020-0168), The University of Melbourne (28428), University of Tasmania (W022958) and Australian Catholic University (2024-32480)

Share your perspectives of the **socio-emotional wellbeing** of children and young people who have **language or reading difficulties**

Your insights can make a difference!

We're looking for **Australian teachers and teacher assistants** who work with children who have language or reading difficulties.

You can help Curtin University researchers to learn more about the **school experiences** and **socio-emotional wellbeing** of children who have language or reading difficulties by participating in a focus group of approx. **1.5-2 hour** duration. Online or in-person focus groups available.

For more information or to register your interest scan the QR code

Or contact Dr Adie Wilmot

adie.wilmot@curtin.edu.au



Curtin University HREC approved study (HRE2021-0084)



Thanks!



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Government of **Western Australia**
Department of **Health**

