Note: The sections in the Paper which are headed "What this tells us" will be the basis for the Panel's recommendations.

Where questions are broken into life stages (early years, school years and adult years), you can provide responses to any or all life stages.

Please indicate clearly at the beginning of any responses you wish to remain confidential.

Unless indicated as confidential, responses will be treated as public information and published on our website. Please see the <u>Public Submissions Policy</u> for further information.

Name: Dr Samuel Calder

Organisation: University of Tasmania

Name: Associate Professor Alison Holm Organisation: University of Tasmania

Question One: Are there any key themes we have not identified to improve literacy across:

The Early Years (0-4 years-old)

- Oral language is the foundation for literacy success¹, and oral language skills predict later reading ability.² Screening of oral language skills by speech pathologists could inform early identification and provision of support for these children.
- Individuals with a history of hearing loss³ and speech sound disorders⁴ are at increased risk of literacy difficulties. Screening of hearing and speech sound production by speech pathologists could inform early identification and provision of support for these children.

The School Years (5-17 years-old)

 Whole school approaches increase consistency in delivery of literacy instruction and are associated with positive student outcomes.⁵

¹ Castles, A., Rastle, K., & Nation, K. (2018). Ending the reading wars: Reading acquisition from novice to expert. Psychological Science in the Public Interest, 19(1), 5-51. https://doi.org/10.1177/1529100618772271; Tunmer, W. E., & Hoover, W. A. (2019). The cognitive foundations of learning to read: A framework for preventing and remediating reading difficulties. Australian Journal of Learning Difficulties, 24(1), 75-93. https://doi.org/10.1080/19404158.2019.1614081

² Catts, H. W., Adlof, S., & Ellis-Weismer, S. (2006). Language deficits in poor comprehenders: A case for the simple view of reading. *Journal of Speech, Language, and Hearing Research, 49,* 278–293. https://doi.org/10.1044/1092-4388(2006/023); Hulme, C., Nash, H. M., Gooch, D., Lervåg, A., & Snowling, M. J. (2015). The foundations of literacy development in children at familial risk of dyslexia. *Psychological Science, 26,* 1877–1886. https://doi.org/0956797615603702; Lervåg, A., Hulme, C., & Melby-Lervåg, M. (2017). Unpicking the developmental relationship between oral language skills and reading comprehension: It's simple, but complex. *Child Development*. Advance online publication. https://doi.org/10.1111/cdev.12861; Nation, K., Cocksey, J., Taylor, J. S. H., & Bishop, D. V. M. (2010). A longitudinal investigation of early reading and language skills in children with poor reading comprehension. *Journal of Child Psychology and Psychiatry, 51,* 1031–1039. https://doi.org/10.1111/j.1469-7610.2010.02254.x

³ Geers, A. E., & Hayes, H. (2011). Reading, writing, and phonological processing skills of adolescents with 10 or more years of cochlear implant experience. *Ear and Hearing, 32*(1), 495. https://doi.org/10.1097/AUD.0b013e3181fa41fa; Qi, S., & Mitchell, R. E. (2012). Large-scale academic achievement testing of deaf and hard-of-hearing students: Past, present, and future. *Journal of Deaf Studies and Deaf Education, 17*(1), 1-18. https://doi.org/10.1093/deafed/enr028; Werfel, K. L. (2017). Emergent literacy skills in preschool children with hearing loss who use spoken language: Initial findings from the early language and literacy acquisition (ELLA) study. *Language, Speech, and Hearing Services in Schools, 48*(4), 249-259. https://doi.org/10.1044/2017_LSHSS-17-0023

⁴ Bird, J., Bishop, D.V., & Freeman, N.H. (1995). Phonological awareness and literacy development in children with expressive phonological impairments. *Journal of Speech and Hearing Research*, *38*(2), 446–462. https://doi.org/10.1044/jshr.3802.446; Hayiou-Thomas, M. E., Carroll, J. M., Leavett, R., Hulme, C., & Snowling, M. J. (2017). When does speech sound disorder matter for literacy? The role of disordered speech errors, co-occurring language impairment and family risk of dyslexia. *Journal of Child Psychology and Psychiatry*, *58*(2), 197-205. https://doi.org/10.1111/jcpp.12648; Holm, A., Farrier, F., & Dodd, B. (2008). Phonological awareness, reading accuracy and spelling ability of children with inconsistent phonological disorder. *International Journal of Language & Communication Disorders*, *43*(3), 300-322. https://doi.org/10.1080/13682820701445032; Leitão, S., Hogben, J., & Fletcher, J. (1997). Phonological processing skills in speech and language impaired children. *International Journal of Language & Communication Disorders*, *32*(2s), 91-111. https://doi.org/10.1111/j.1460-6984.1997.tb01626.x; Leitão, S., & Fletcher, J. (2004). Literacy outcomes for students with speech impairment: long-term follow-up. *International Journal of Language & Communication Disorders*, *39*(2), 245-256. https://doi.org/10.1080/13682820310001619478

⁵ Louden, W. (2015). High performing primary schools: What do they have in common? Department of Education Western Australia. https://crackingtheabccode.com/wp-content/uploads/2014/06/High-performing-schools-in-WA-v4.0.pdf; Reynolds, D. (2008). Schools learning from their best: The Within School Variation (WSV) project. National College for School Leadership. https://core.ac.uk/download/pdf/4156941.pdf

- Children with poor language skills (not just vocabulary) are at risk of poorer reading,⁶ wellbeing,⁷ and educational and vocational outcomes.⁸
- Reading and writing are reciprocal skills; however, a clear distinction between the skills required to achieve reading and/or writing success should be made. For example, writing consists of several other skills and cognitive processes, such as text construction, handwriting, spelling, executive function, memory.⁹
- Methods of teaching should explicitly state Responsiveness to Intervention/Multi-Tiered Systems of Support should guide educational practice. We also suggest that 'Tier 1, 2, 3' are used instead of 'Waves' for consistency with usage in the literature and preceding subheading. Clear definitions of each Tier should be provided, e.g., Tier 1: Education-led high-quality intervention for all, e.g., classroom based literacy programs; Tier 2: Education-led intervention for those just below age-expectation, e.g., small group interventions to provide an extra dose of the classroom-based literacy program; Tier 3: Specialist-led interventions for those who have identified language, literacy, and learning difficulties/disabilities who will likely require individualised intervention to make progress ¹⁰. Finally, the role of speech pathologists in implementing and training others to implement intervention across the Tiers of intervention should be clearly stated.¹¹
- The Tiered approach and structured literacy theme concentrates almost exclusively on reading skills. Greater attention should be paid to encoding, spelling, writing instruction, including morphological awareness instruction.¹²
- Explicit, systematic, and structured approaches to teaching literacy is also beneficial to students with oral language disorders,¹³ such as developmental language disorder.¹⁴

The Adult Years (18+ years-old)

⁶ Silva, M., & Cain, K. (2015). The relations between lower and higher level comprehension skills and their role in prediction of early reading comprehension. *Journal of Educational Psychology*, 107(2), 321–331. https://doi.org/10.1037/a0037769

Clegg, J., Hollis, C., Mawhood, L., & Rutter, M. (2005). Developmental language disorders—a follow-up in later adult life. Cognitive, language and psychosocial outcomes. *Journal of Child Psychology and Psychiatry*, 46(2), 128-149. https://doi.org/10.1111/j.1469-7610.2004.00342.x

⁸ Conti-Ramsden, G., Durkin, K., Toseeb, U., Botting, N., & Pickles, A. (2018). Education and employment outcomes of young adults with a history of developmental language disorder. *International Journal of Language & Communication Disorders*, 53(2), 237-255. https://doi.org/10.1111/1460-6984.12338

⁹ Berninger, V. W. (2000). Development of language by hand and its connections with language by ear, mouth, and eye. *Topics in Language Disorders*, 20(4), 65–84. https://doi.org/10.1097/00011363-200020040-00007

¹⁰ Fuchs, D., & Fuchs, L. S. (2006). Introduction to response to intervention: What, why, and how valid is it?. Reading research quarterly, 41(1), 93-99. https://www.jstor.org/stable/4151803

¹¹ Ebbels, S. H., McCartney, E., Slonims, V., Dockrell, J. E., & Norbury, C. F. (2019). Evidence-based pathways to intervention for children with language disorders. *International Journal of Language & Communication Disorders*, *54*(1), 3-19. https://doi.org/10.1111/1460-6984.12387; Speech Pathology Australia (2022). *Speech Pathology in Education*.

https://www.speechpathologyaustralia.org.au/SPAweb/Resources_For_Speech_Pathologists/Speech_Pathology_in_Education/SPAweb/Resources_for_Speech_Pathologists/Speech%20Pathologists%20in%20Schools/Speech_Pathologists_in_Schools.aspx?hkey=f6a3b0ae-222f-491d-98a2-9df940018e1b

¹² Apel, K., & Werfel, K. (2014). Using morphological awareness instruction to improve written language skills. Language, Speech, & Hearing Services in Schools, 45(4), 251-260. https://doi.org/10.1044/2014_LSHSS-14-0039

¹³ Wilcox, M. J., Gray, S., & Reiser, M. (2020). Preschoolers with developmental speech and/or language impairment: Efficacy of the Teaching Early Literacy and Language (TELL) curriculum. Early Childhood Research Quarterly, 51, 124-143.

¹⁴ Taylor, A. L., Calder, S. D., Pogorzelski, S., & Koch, L. (2021). A preliminary evaluation of a manualised intervention to improve early literacy skills in children with Developmental Language Disorder. *Child Language Teaching and Therapy*, *37*(3), 321-336. https://doi.org/10.1177/02656590211052001

- Language and literacy difficulties are associated with later mental health problems, ¹⁵ lower job satisfaction, ¹⁶ overrepresentation in the justice system, ¹⁷ and economic burden. ¹⁸ Therefore, it is pertinent to provide preventative services as early as possible; however, responsive services should be prioritised for adults who have lived with language and learning to ameliorate individual and community level impacts.
- Literacy will undoubtedly impact individuals' health literacy which will have implications for how well someone can self-manage their health and make informed decisions.

Question Two: What are the three main things we should prioritise doing in:

The Early Years (0-4 years-old)

- Early screening for oral language difficulties (e.g., GAPS) and systems for follow up assessment as indicated.
- Implementation of prevention and promotion strategies targeted at families of children at risk of language and literacy difficulties through early childhood services is critical.
- Speech pathologists must be integral and embedded in all early learning programs in Tasmania.

The School Years (5-17 years-old)

- Implementation of whole school, evidence-based tired approaches to structured literacy instruction.
- Progress monitoring of and provision of intervention for children at risk of literacy difficulties through tired or responsive support.
- Access to specialist support (e.g., speech pathologists) for language and literacy difficulties
 during the transition to and throughout high school. Speech pathology services need to be
 available immediately when children are identified with communication development
 support needs. Early, effective, well-resourced intervention to support oral language
 development and literacy acquisition is crucial. Increased capacity (i.e., creating more
 speech pathology positions) and improved coordination and integration of speech
 pathology services through both the Tasmanian Health Service and the Department of
 Education is needed. The government could explore joint funding across Health and
 Education of speech pathology services for children and families before they start school.

The Adult Years (18+ years-old)

Access to specialist support (e.g., speech pathologists) for literacy difficulties for adults
within the justice system, with a view to improving health literacy and ameliorate
individual and community level impacts.

Brownlie, E. B., Bao, L., & Beitchman, J. (2016). Childhood language disorder and social anxiety in early adulthood. *Journal of Abnormal Child Psychology*, *44*(6), 1061-1070. https://doi.org/10.1007/s10802-015-0097-5; Nalavany, B. A., Logan, J. M., & Carawan, L. W. (2018). The relationship between emotional experience with dyslexia and work self-efficacy among adults with dyslexia. *Dyslexia*, *24*(1), 17-32. https://doi.org/10.1002/dys.1575; Riddick, B., Sterling, C., Farmer, M., & Morgan, S. (1999). Self-Esteem and Anxiety in the Educational Histories of Adult Dyslexic Students. Dyslexia, 5, 227-248. <a href="https://doi.org/10.1002/(SICI)1099-0909(199912)5:4<227::AID-DYS146>3.0.CO;2-6">https://doi.org/10.1002/(SICI)1099-0909(199912)5:4<227::AID-DYS146>3.0.CO;2-6

¹⁶ Leather, C., Hogh, H., Seiss, E., & Everatt, J. (2011). Cognitive functioning and work success in adults with dyslexia. *Dyslexia*, 17(4), 327-338. https://doi.org/10.1002/dys.441; Nalavany, B. A., Logan, J. M., & Carawan, L. W. (2018). The relationship between emotional experience with dyslexia and work self-efficacy among adults with dyslexia. *Dyslexia*, 24(1), 17-32. https://doi.org/10.1002/dys.1575

Macdonald, S. J. (2012). Biographical pathways into criminality: understanding the relationship between dyslexia and educational disengagement. *Disability & Society*, *27*(3), 427-440. https://doi.org/10.1080/09687599.2012.654992; Moody, K. C., Holzer 3rd, C. E., Roman, M. J., Paulsen, K. A., Freeman, D. H., Haynes, M., & James, T. N. (2000). Prevalence of dyslexia among Texas prison inmates. *Texas Medicine*, *96*(6), 69-75. https://europepmc.org/article/med/10876375; Snow, P. C. (2019). Speech-language pathology and the youth offender: Epidemiological overview and roadmap for future speech-language pathology research and scope of practice. *Language*, *Speech*, & *Hearing Services in Schools*, *50*(2), 324-339. https://doi.org/10.1044/2018 LSHSS-CCJS-18-0027

¹⁸ Cronin, P. A. (2017). The economic impact of childhood developmental language disorder (Doctoral dissertation). https://opus.lib.uts.edu.au/handle/10453/123261; Karande, S., Ramadoss, D., & Gogtay, N. (2019). Economic burden of slow learners: A prevalence-based cost of illness study of its direct, indirect, and intangible costs. Journal of Postgraduate Medicine, 65(4), 219. https://doi.org/10.4103/jpgm.JPGM_105_19

Question Three: Are there any data sets not considered in this paper that should be used to monitor literacy achievement in:

The Early Years (0-4 years-old)

- The Grammar and Phonology Screening (GAPS) test is a valid and reliable screener for children aged 3;4 to 6;6 years. The test taps into language processing skills, such as sentence recall¹⁹ and nonword repetition,²⁰ that are considered to be hallmark areas of deficit for developmentally based language disorders. The GAPS is effective for identifying children in need of further, in-depth assessment or monitoring for language difficulties. The GAPS does *not* assess phonological awareness skills as suggested in the report. The Panel should also make clear how the data from GAPS testing will be used, e.g., what threshold for a 'fail' will be used, and will children who fail the GAPS be flagged for further assessment of language difficulties?
- It is our understanding that the Department of Premier and Cabinet is aware of and actively involved in the Tassie Kids longitudinal research project, which is investigating what early childhood services families access in the first five years of a child's life, and this information has been used to inform early childhood service planning across Tasmania. We believe this dataset could be used to inform progress monitoring schedules from the early years through to the school years.

The School Years (5-17 years-old)

- The measures that are included under The use of data to inform teaching section is limited to sound-word level tasks (e.g., The Year 1 Phonics Check) and standardised assessments of performance (e.g., PAT, NAPLAN). The latter do not provide formative information on student performance that can be used to inform support strategies for struggling children. The Language Dynamics Group CUBED Assessments (https://www.languagedynamicsgroup.com/cubed/cubed_download/) are freely available tools for the assessment of oral language, phonological awareness, decoding, and reading fluency. These tools are also designed for progress monitoring and informing intervention planning through Responsiveness to Intervention/Multi-Tiered Systems of Support service provision models
- Brightpath (https://www.brightpath.com.au/) is a tool which is designed as a formative assessment to inform the learning cycle of writing instruction across the formal schooling years. The tool has undergone rigorous testing for reliability and is supported by government-led initiatives in Western Australia and South Australia. The tool also allows for centralisation of student results which provides progress monitoring and measurement of outcomes across the state.

| The | Δdult | Years | (18+ | vears-o | ld) |
|------|-------|----------|------|-----------------|-----|
| 1116 | Auui | . i cais | 1101 | v = a i 3 = U i | u |

¹⁹ Redmond, S. M., Ash, A. C., Christopulos, T. T., & Pfaff, T. (2019). Diagnostic accuracy of sentence recall and past tense measures for identifying children's language impairments. *Journal of Speech, Language, and Hearing Research*, 62(7), 2438-2454. https://doi.org/10.1044/2019_JSLHR-L-18-0388

Dollaghan, C., & Campbell, T. F. (1998). Nonword repetition and child language impairment. *Journal of Speech, Language, and Hearing Research, 41*(5), 1136–1146. https://doi.org/10.1044/jslhr.4105.1136

| Question Four: If you are a provider of a service, what kinds of guidance would you hope to see | | | | | |
|---|--|--|--|--|--|
| in the Community-wide Framework? | | | | | |
| N/A | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Question Five: Are there any other comments you would like to make?

Speech pathologists have essential skills and knowledge to contribute to this support team. Greater access and resourcing, improved equity, and consistent evidence-based information, training, and resources should be available to both early learning educators and families. This will allow early identification of children and families that need targeted intervention. Speech pathologists must also work with early years educators and families to improve the language and communication skills of all vulnerable children before they start learning to read.

At present, we are aware that there is variation in how speech pathology services are provided for children in the early years across the state. Stronger integration of early years services across Tasmanian Health Service and the Department of Education for Children and Young People would improve service provision of early intervention and supporting early oral language development prior to formal schooling.