



A Better Start

Literacy and Learning Theme

Early literacy intervention

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Current Challenges

Percentage of school children achieving at or above national standard level for reading

	2013	2014	2015	2016
End of first year	65%	64.5	63.6	62.0
After 2 years	79.9	79.1	78.1	77.2
After 8 years	77.3	77.6	78.3	78.2



Better Start Literacy Study Participants

Year 1 students (Aged 5;0 – 5;11)

268 initial assessments

across 7 schools

170

eligible for comprehensive assessment

144 pre-post datasets



Initial Assessment

- Phonological Awareness
 - Initial Phoneme Identity task – online task (Carson, Boustead & Gillon, 2013)
- Language
 - Clinical Evaluation of Language Fundamentals-Preschool 2 Australia/NZ version
 - Recalling Sentences subtest
 - Expressive Vocabulary subtest

*Qualified SLTs completed all screening and comprehensive assessments



Comprehensive Assessment Protocol

Session 1	Session 2	Session 3
Expressive vocabulary probe (words selected from intervention storybooks)	Receptive vocabulary probe (words selected from intervention storybooks)	PAAT: Blending, Segmenting, Letter-sound knowledge
Letter name fluency (DIBELS)	Non-word reading task	Name writing task
CELF-P2: Sentence Structure Word Structure	Story retell task	Psychosocial task (children's perceptions of their academic skills)



Oral Language ability (CELF) at baseline for the research cohort (n=144)

CELF Assessment	Mean	Sd
Word Structure scaled score*	7.51	3.47
Sentence Structure scaled score*	7.44	3.20
Expressive Vocabulary scaled score*	6.72	2.56
Recalling sentences scaled score*	6.01	2.83
CELF Core Language Index**	82.37	16.32

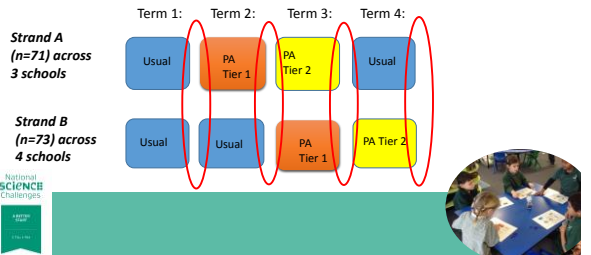
* : expected performance for a child's age is 7-13
 ** : expected performance for a child's age is 85-100



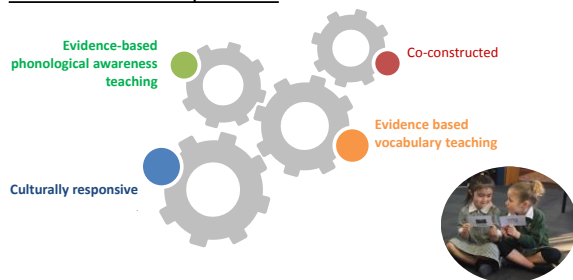
Response to Intervention Framework



Study Design: Where we are up to



Intervention components



Intervention Plan – Week 1-10

Week	Book and Competency	Target Sounds	Level 1 Focus	Level 2 Focus	Vocabulary
1	Kakapo Dance Whanaungatanga	b f	Initial Phoneme Identity Blending/Segmentation	Initial Phoneme Identity Blending/Segmentation	coo shriek swaddle shuffle whānau
2	Down in the Forest Whanaungatanga	s s blends	Initial Phoneme Identity Blending/Segmentation	Initial Phoneme Identity Blending/Segmentation Manipulation	shelter dash squirm spy
3	Grrrrr! Wānanga	g/gr t/tr	Initial Phoneme Identity Blending/Segmentation	Initial Phoneme Identity Blending/Segmentation Manipulation	aroha brilliant guilty lonely

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3	Grrrrr! Wānanga	g/gr t/tr	Initial Phoneme Identity Blending/Segmentation	Initial Phoneme Identity Blending/Segmentation Manipulation	aroha brilliant guilty lonely
4	You Must Bring a Hat Wānanga	p + blends h	Initial Phoneme Identity Blending/Segmentation Manipulation	Final Phoneme Identity Blending/Segmentation Manipulation	aroha brilliant guilty lonely
5	Marmaduke Duck Mānakitanga	d m	Initial Phoneme Identity Blending/Segmentation Manipulation	Final Phoneme Identity Blending/Segmentation Manipulation	back change head tail

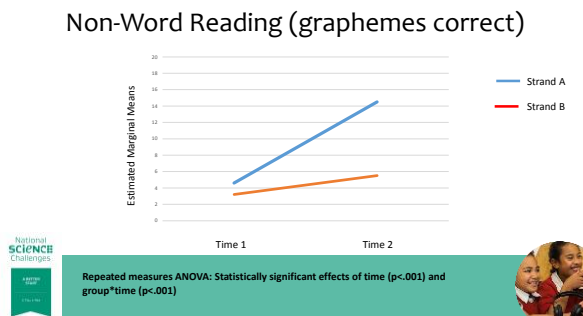
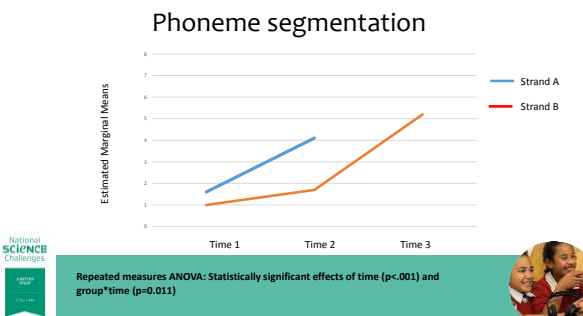
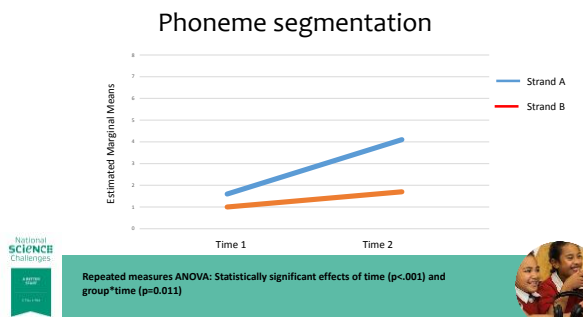
National Science Challenges



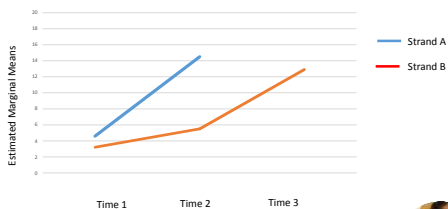
Week	Book and Competency	Target sounds	Level 1 Focus	Level 2 Focus	Vocabulary
6	Colour the Stars Mānakitanga	k/c n	Initial Phoneme Identity Blending/Segmentation Manipulation	Final Phoneme Identity Blending/Segmentation Manipulation	head hoop saddle saddle saddle saddle
7	Little Kiwi's Mutariki Tangata Whanaungatanga	wh final in final k	Final Phoneme Identity Blending/Segmentation Manipulation	Blending/Segmentation Manipulation	Maori language harvest international
8	The Tuatara and the Skink Ako	final t final s	Final Phoneme Identity Blending/Segmentation Manipulation	Blending/Segmentation Manipulation	creaky beautiful messy gritlike
9	Teacher-designed lessons				
10	Teacher-designed lessons				

National Science Challenges





Non-Word Reading (graphemes correct)

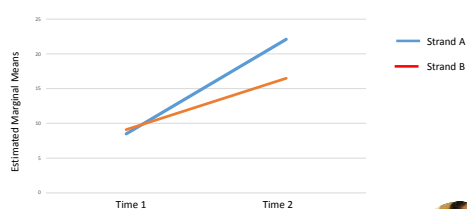


National SCIENCE Challenges

Repeated measures ANOVA: Statistically significant effects of time ($p < .001$) and group*time ($p < .001$)



Letter Knowledge Fluency (DIBELS)

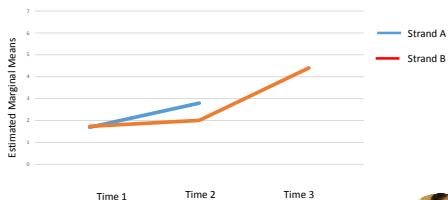


National SCIENCE Challenges

Repeated measures ANOVA: Statistically significant effects of time ($p < .001$) and group*time ($p = 0.004$)



Expressive Vocabulary (Elaborated words only)

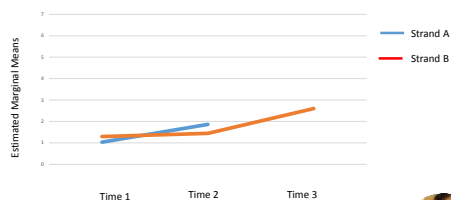


National SCIENCE Challenges

Repeated measures ANOVA: Statistically significant effects of time ($p < .001$) and group*time ($p < .001$)



Expressive Vocabulary (Unelaborated words only)



National SCIENCE Challenges

Repeated measures ANOVA: Statistically significant effects of time ($p < .001$)



Conclusions, Implications and Next Steps

- Preliminary data show positive impact of the intervention
- Intervention co-construction (Strand A) and refinement (Strand B) positions us well for scaling up of the intervention
- Important implications for education policy
 - Change classroom practices to get better outcomes for early learners



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