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Workshop: using technology to promote adolescent reading and vocabulary

Jessie Ricketts and Sanne van der Kleij

Shared understanding

What does it mean to learn a word?

(more to it than we might at first think)

Aims of the RAV project

- **1.** Measure the influences of SES and secondary school transition on growth in reading and vocabulary
- **2.** Test the relationship between reading ability, reading practice and vocabulary knowledge
- **3. Experimentally test the influence of independent reading on vocabulary acquisition**

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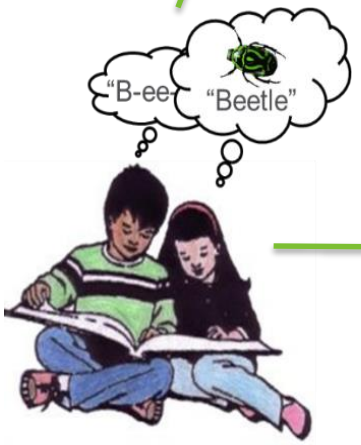
Reading and Vocabulary: model

Q1. Does being better at reading lead you to read more books?

Q2. Does the amount of book reading you do help to expand your vocabulary?



Q3. Does being better at reading help you learn word meanings more easily?

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Background

- Lexical Legacy (Nation, 2017): reading experience is crucial link in relation reading ability and vocabulary:
  - encountering a word in diverse, meaningful contexts is important for lexical growth, in addition to being a good reader
- Written fiction contains more diverse vocabulary than spoken language (Castles, Rastle, & Nation, 2018)
- However, most children and adolescents rarely read for pleasure (Clark & Teravainen, 2017)

Further reading

aps
ASSOCIATION FOR PSYCHOLOGICAL SCIENCE

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www.psychologicalscience.org/PSPI
SAGE

Ending the Reading Wars: Reading Acquisition From Novice to Expert

Anne Castles[1,2], Kathleen Rastle[3], and Kate Nation[2,4]
[1]Department of Cognitive Science, Macquarie University; [2]Australian Research Council Centre of Excellence in Cognition and its Disorders; [3]Department of Psychology, Royal Holloway, University of London; and [4]Department of Experimental Psychology, University of Oxford

Abstract
There is intense public interest in questions surrounding how children learn to read and how they can best be taught. Research in psychological science has provided answers to many of these questions but, somewhat surprisingly, this research has been slow to make inroads into educational policy and practice. Instead, the field has been plagued by decades of "reading wars." Even now, there remains a wide gap between the state of research knowledge about learning to read and the state of public understanding. The aim of this article is to fill this gap. We present a comprehensive tutorial review of the science of learning to read, spanning from children's earliest alphabetic skills through to the fluent word recognition and skilled text comprehension characteristic of expert readers. We explain why phonics instruction is so central to learning in a writing system such as English. But we also move beyond phonics, reviewing research on what else children need to learn to become expert readers and considering how this might be translated into effective classroom practice. We call for an end to the reading wars and recommend an agenda for instruction and research in reading acquisition that is balanced, developmentally informed, and based on a deep understanding of how language and writing systems work.

Keywords
reading, language, reading acquisition, phonics, text comprehension

Aims & hypotheses

- Aim 1: does SMS-feedback increase reading practice
  - More reading activity for the intervention group
  - Effect of SMS-feedback on reading activity will be greater for children who engage with the diary more often

- Aim 2: association between amount of independent reading and vocabulary acquisition
  - Children who read more text will acquire more topic-specific words
  - Over and above their reading ability

The new project

Choose a book & set goals on amount of reading

Read in their own time

Keep a reading diary

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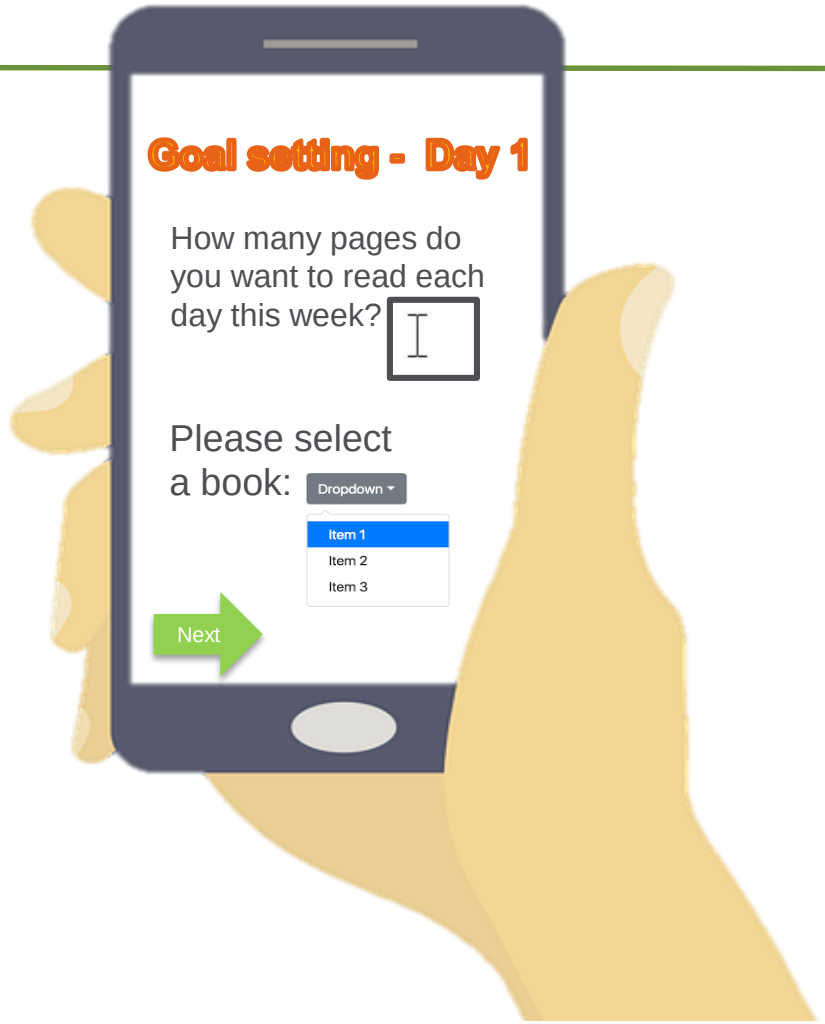

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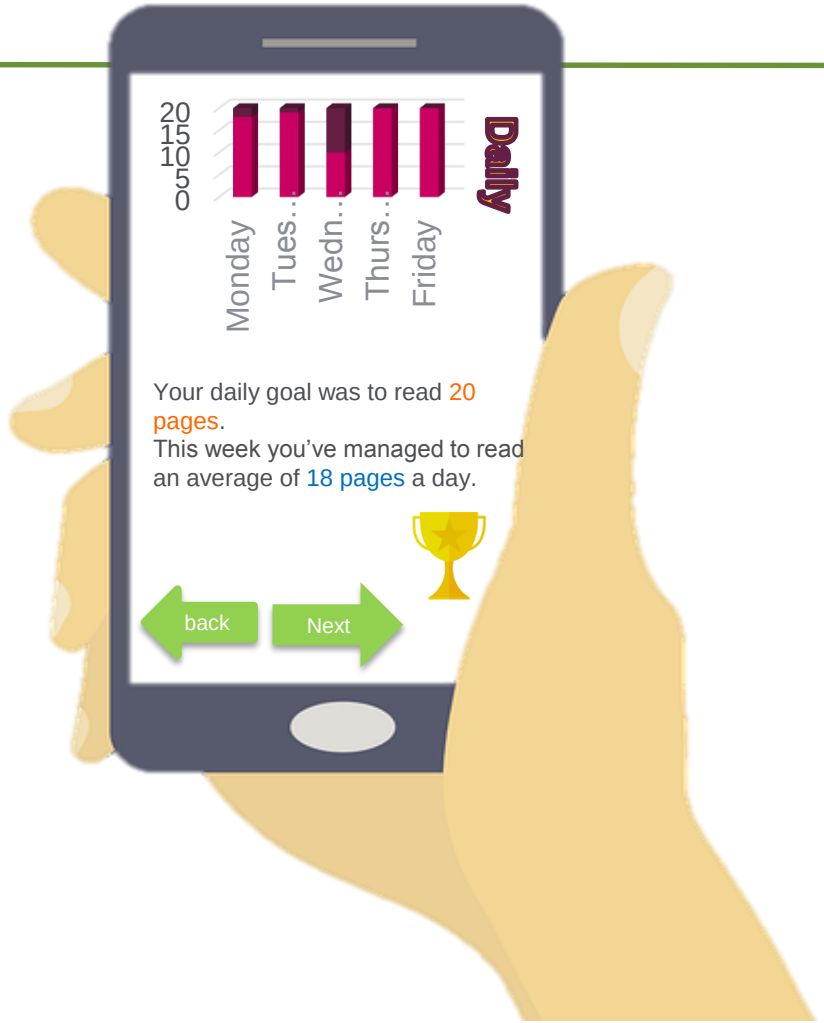

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The new project

- Want to include:

- 11-14 year-old Boys
- Lower SES backgrounds
- Average and below average readers

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Pupil workshops

- Ranked books and asked for favourite themes
  - Murder/mystery, thriller adventure/action or comedy
  - No romance
- Don’t want to receive messages every day for 10 weeks
  - Limit to 5 days per week, break during half term
- Difficult to remember number of pages/time spent reading
  - Only ask them what page they are on

Discussion

- What works or what might not work?
- Opinion on books? Themes?
- What did the pupils say about our books?

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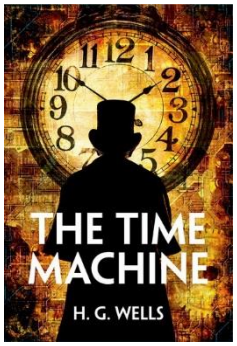
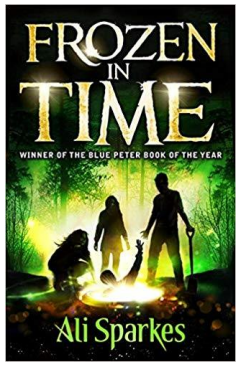
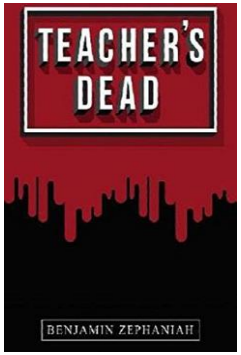
Book titles

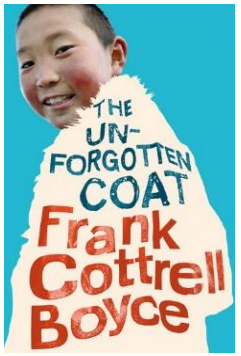
Most popular

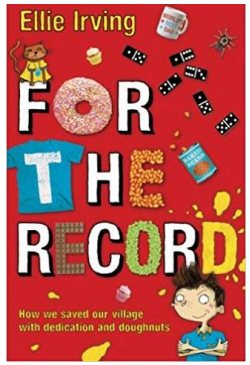




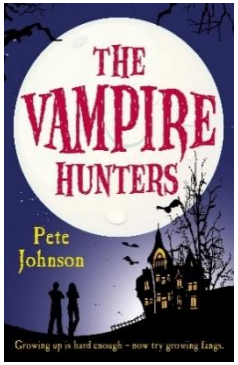


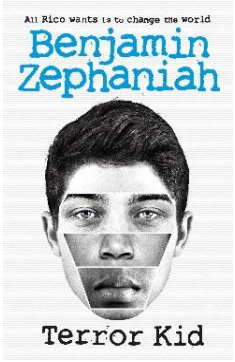
Least popular

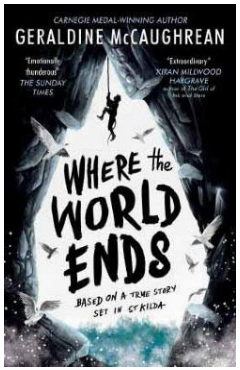


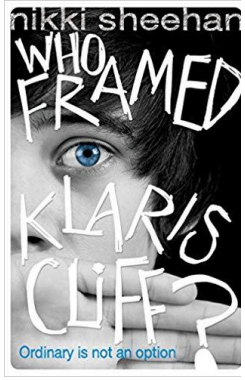


Mixed









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  - http://www.aston.ac.uk/alp/

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Extra slides

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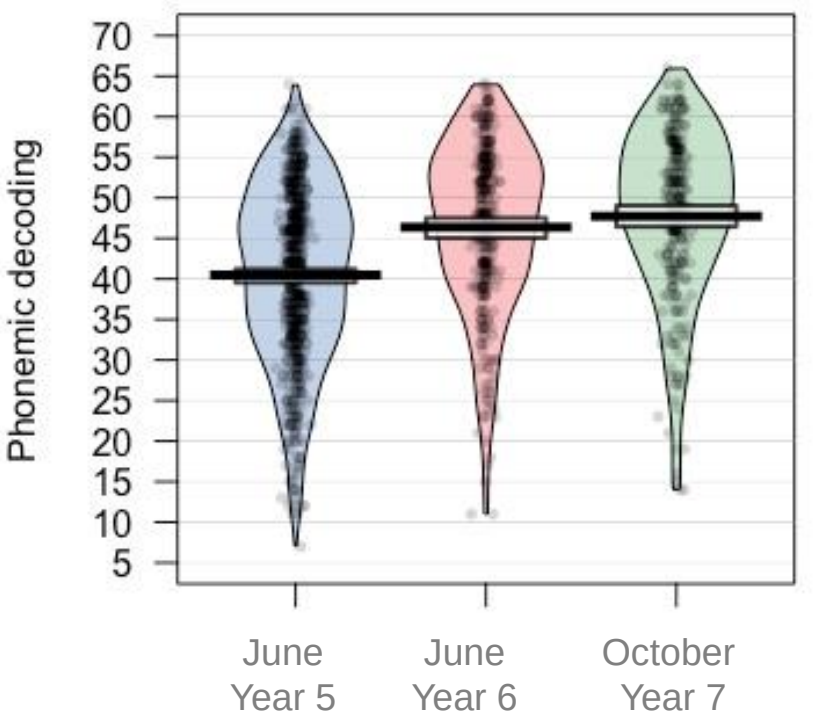
Measures

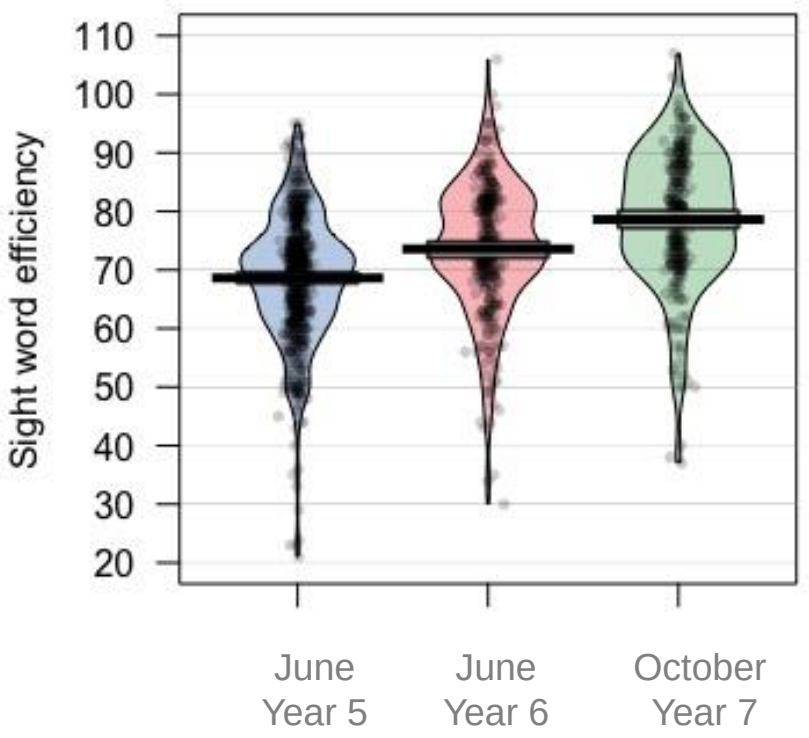
	Year	n	Mean	SD	min	max
Phonemic decoding	Y5	597	40.4	10.98	7	64
	Y6	299	46.38	10.5	11	64
	Y7	251	47.67	10.62	14	66
Sight words	Y5	598	68.63	10.97	21	95
	Y6	299	73.58	11.25	30	106
	Y7	252	78.49	11.66	37	107
BPVS	Y5	481	122.09	16.01	62	152
	Y6	298	132.19	14.88	63	162
	Y7	249	134.58	14.31	83	162
YARC passage 1						
	Y6	299	8.64	2.29	2	13
	Y7	229	8.58	2.39	1	13
YARC passage 2						
	Y6	296	7.59	2.81	0	13
	Y7	244	7.49	2.79	0	13

Growth in word reading efficiency

Phonemic decoding +8 nonwords



Sight word efficiency +10 words



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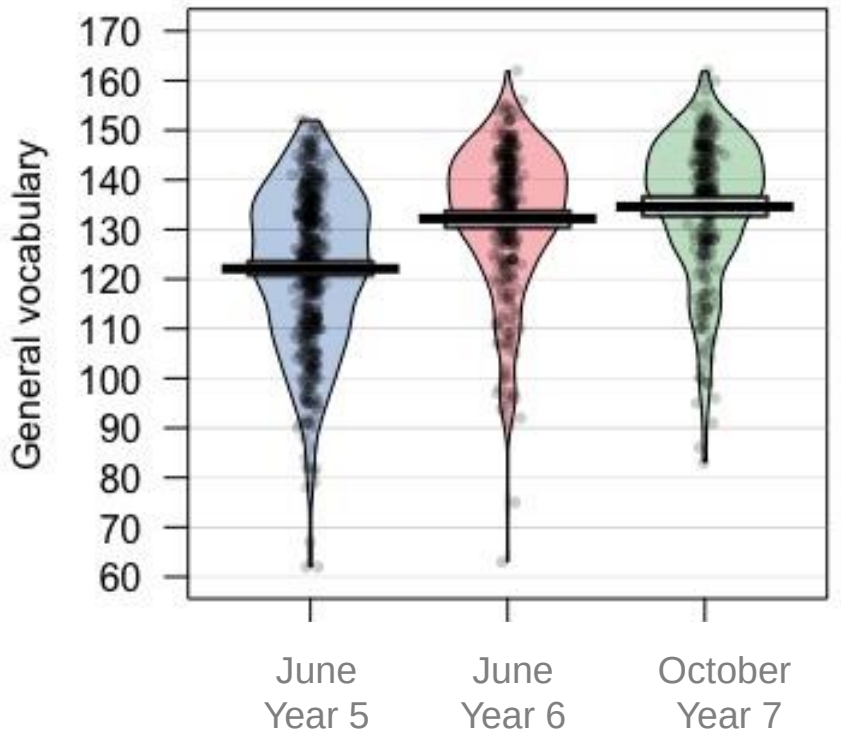
significant growth between each time point, η_p^2= .36 and .42 (decoding, sight words)

Growth in vocabulary (BPVS)

vocabulary + 13 items



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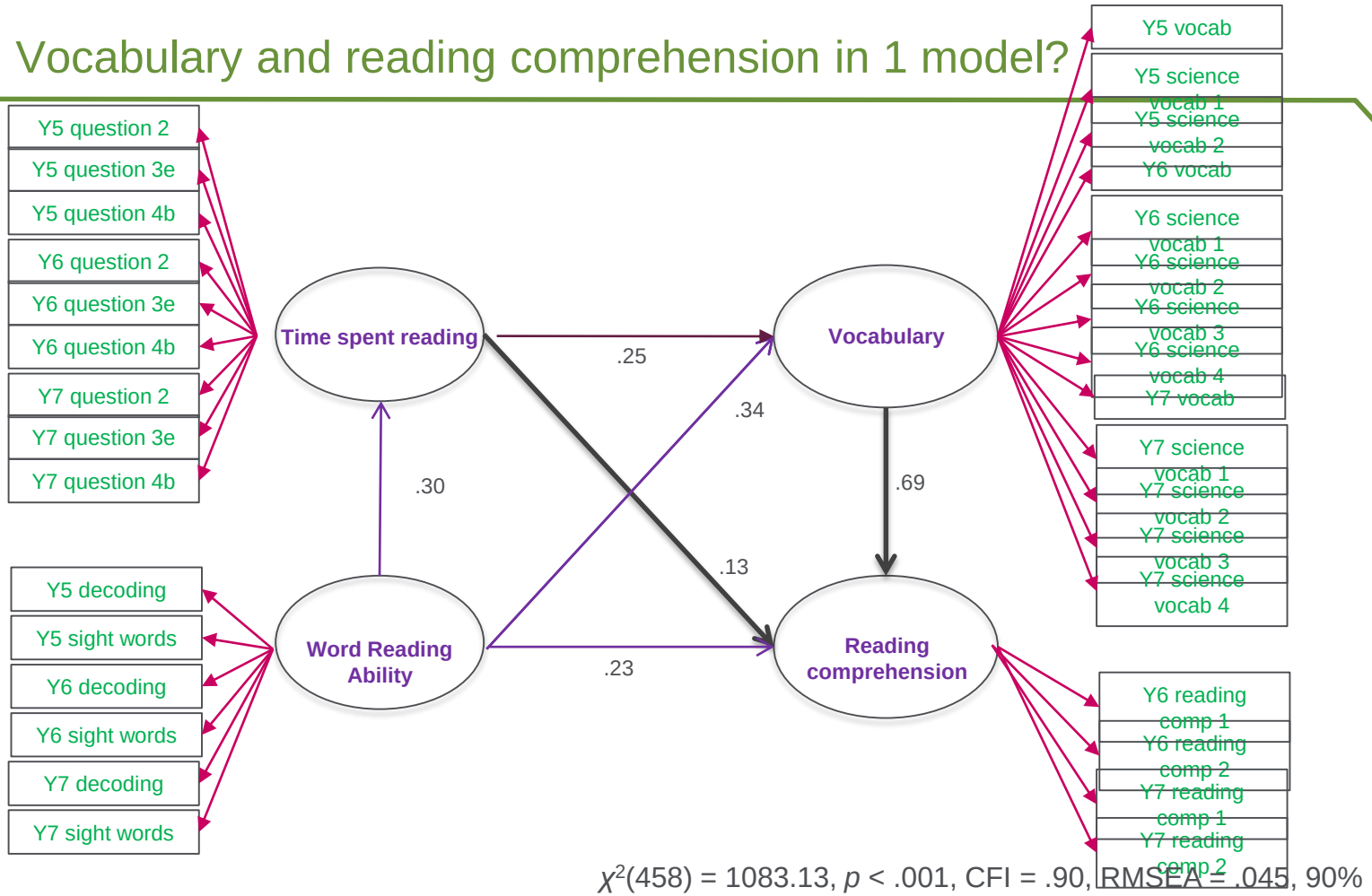
significant growth between each time point, $\eta_p^2 = .51$

Vocabulary and reading comprehension in 1 model?



$\chi^2(458) = 1083.13$, $p < .001$, CFI = .90, RMSEA = .045, 90% *CI* = .041–.048

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EXTRA SLIDES

- IGNORE FROM HERE ONWARDS

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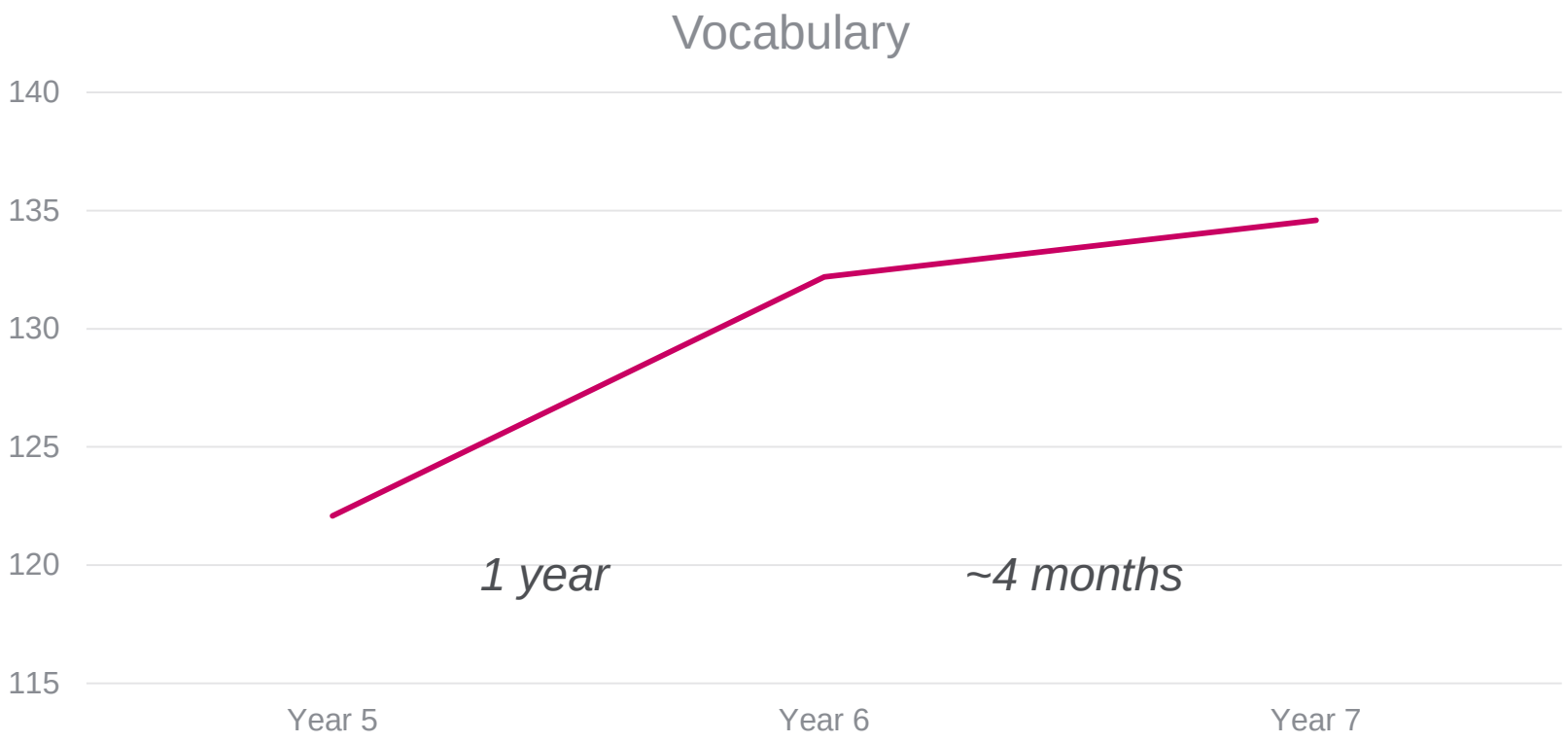
Longitudinal study

significant growth between each time point, η_p^2= 42 and .36 (sight words, decoding)

Longitudinal study



significant growth between each time point, $\eta_p^2 = .51$

Longitudinal study

Table 1. Descriptive Statistics of Year group and Test

	N	Minimum	Maximum	Mean	SD
Year 5 Phonemic Decoding	597	7	64	40.49	10.98
Year 6 Phonemic Decoding	299	11	644	46.38	10.50
Year 7 Phonemic Decoding	250	14	66	47.72	10.60
Year 5 Sight Word Efficiency	598	21	95	70.01	10.97
Year 6 Sight Word Efficiency	299	30	106	73.25	11.25
Year 7 Sight Word Efficiency	251	37	107	78.93	11.52

Phonemic decoding growth

Table 2. Pairwise Comparisons of Time of Testing

(I) Time	(J) Time	Mean Diff (i-J)	Std Error	Sig	95% confidence interval for Difference	
					Lower Bound	Upper Bound
Year 5	Year 6	-4.59	0.49	p<.001	-5.78	-3.40
	Year 7	-6.38	0.51	p<.001	-7.61	-5.14
Year 6	Year 7	-1.78	0.43	P<.001	-2.82	-0.75

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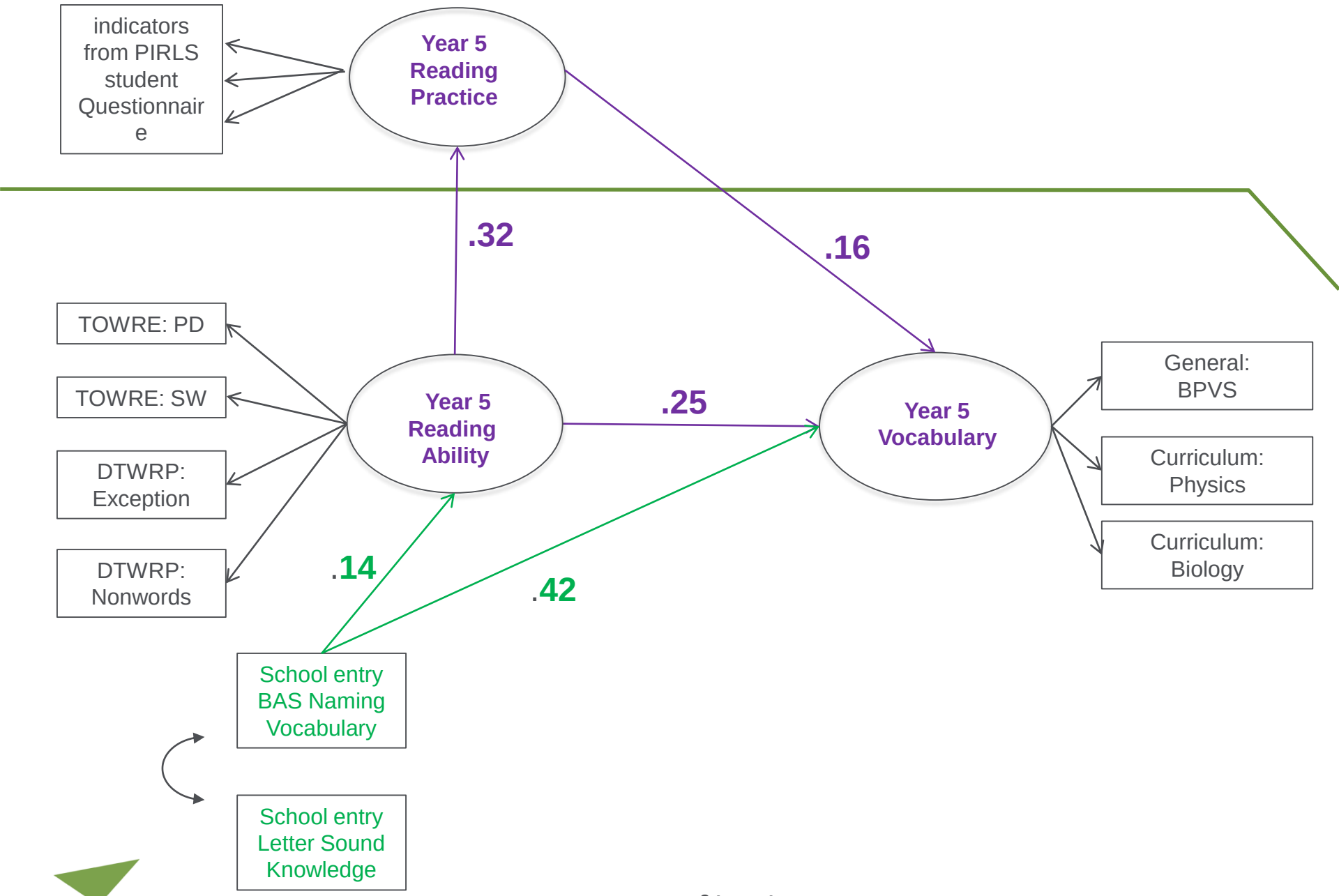
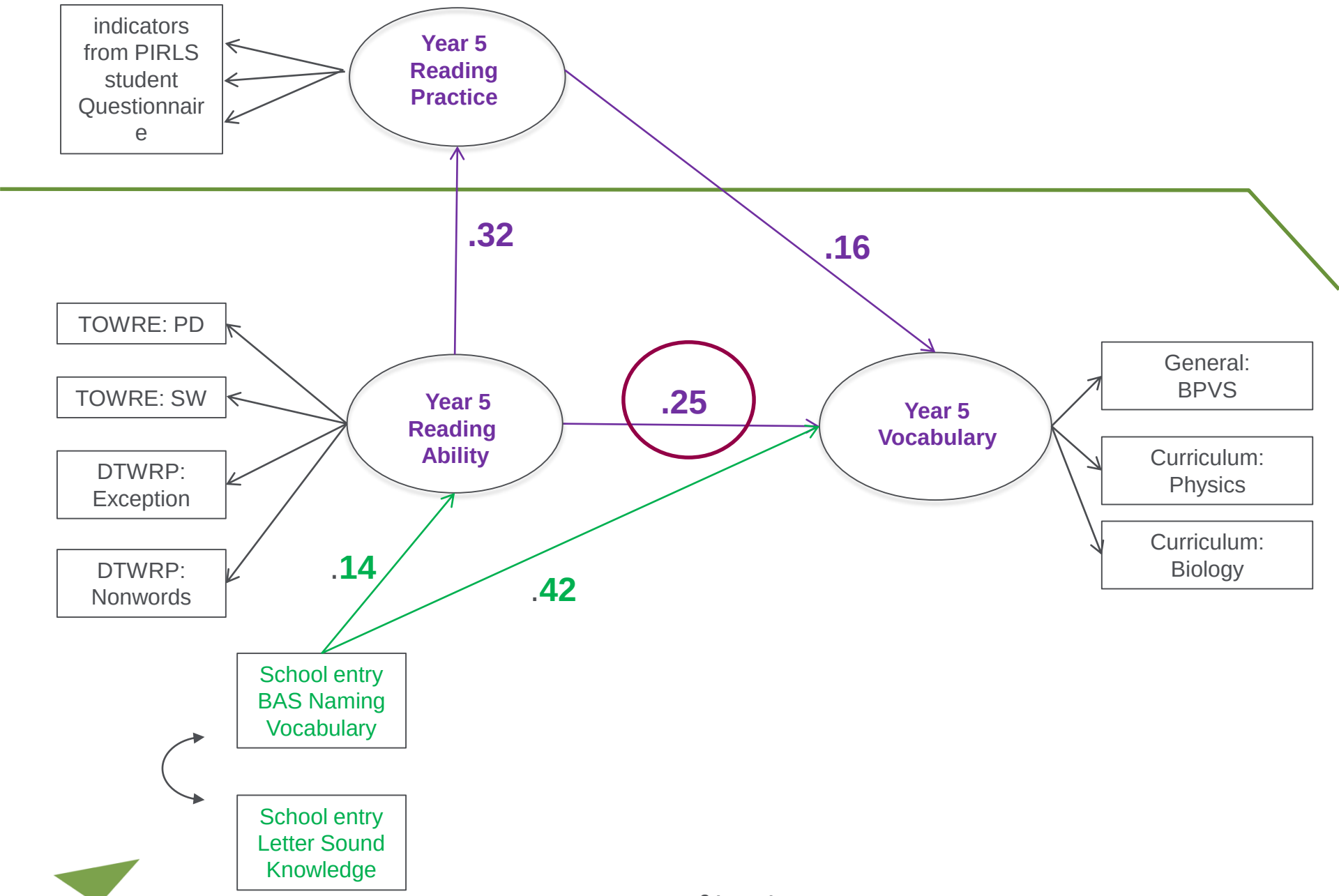


n = 788 age 4, 556 age 10

$\chi^2(127) = 460.60$, $p < .001$, NFI = .89, CFI = .92, RMSEA = .054, 90% CI = .048–.059



n = 788 age 4, 556 age 10

$\chi^2(127) = 460.60$, $p < .001$, NFI = .89, CFI = .92, RMSEA = .054, 90% CI = .048–.059

RAV correlations at Year 5

	NonwordA	Exception/	PhonemicI	SightWord	GeneralVo	PhysicsVo(	BiologyVo(	for fun (of	stories (of	silently (of	as present	boring	more time	enjoy	imagine
NonwordAccuracy															
ExceptionAccuracy	**0.72**														
PhonemicDecodingEfficiency	**0.74**	**0.66**													
SightWordEfficiency	**0.46**	**0.55**	**0.72**												
GeneralVocabulary	0.34	0.51	0.33	0.29											
PhysicsVocabulary	0.29	0.37	0.21	0.22	**0.57**										
BiologyVocabulary	0.24	0.39	0.24	0.23	**0.68**	**0.53**									
for fun (often)	0.15	0.15	0.21	0.16	0.23	0.15	0.19								
stories (often)	0.15	0.14	0.16	0.16	0.20	0.12	0.18	0.47							
silently (often)	0.12	0.19	0.13	0.13	0.16	0.17	0.17	0.24	0.28						
as present	0.24	0.22	0.22	0.19	0.28	0.15	0.19	0.43	0.37	0.32					
boring	0.21	0.20	0.21	0.14	0.20	0.16	0.12	0.48	0.38	0.24	0.50				
more time for reading	0.17	0.17	0.21	0.16	0.20	0.11	0.15	0.51	0.37	0.29	0.54	0.53			
enjoy	0.25	0.28	0.26	0.18	0.27	0.17	0.19	0.55	0.42	0.34	0.65	0.63	0.71		
imagine	0.24	0.24	0.25	0.27	0.26	0.16	0.18	0.34	0.30	0.21	0.44	0.36	0.40	0.39	
only if I have to	0.20	0.15	0.17	0.10	0.28	0.18	0.20	0.39	0.32	0.20	0.37	0.48	0.39	0.47	0.25

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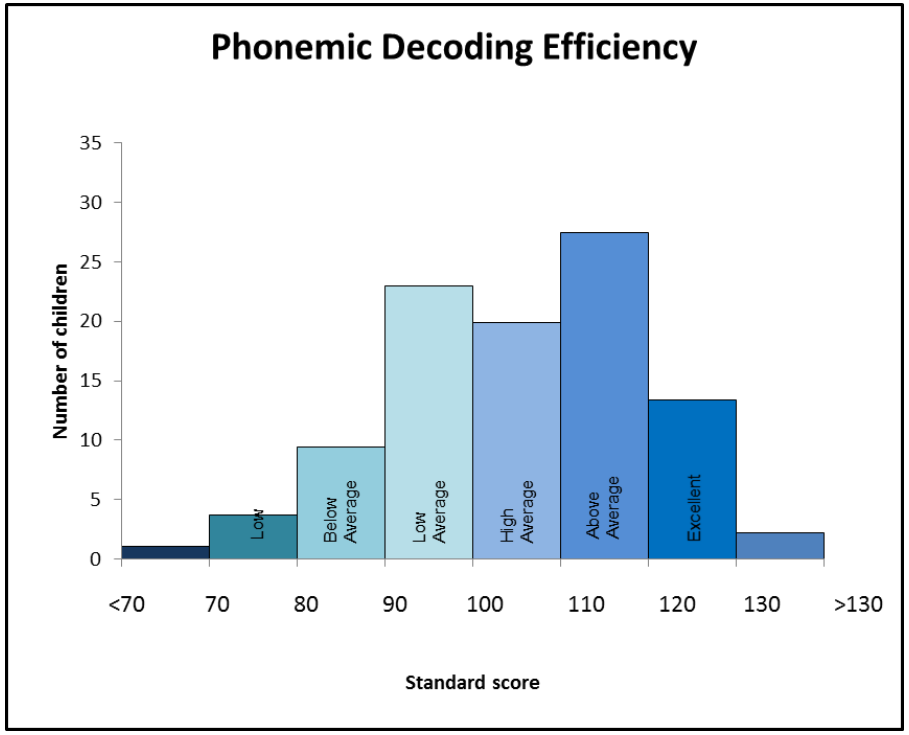
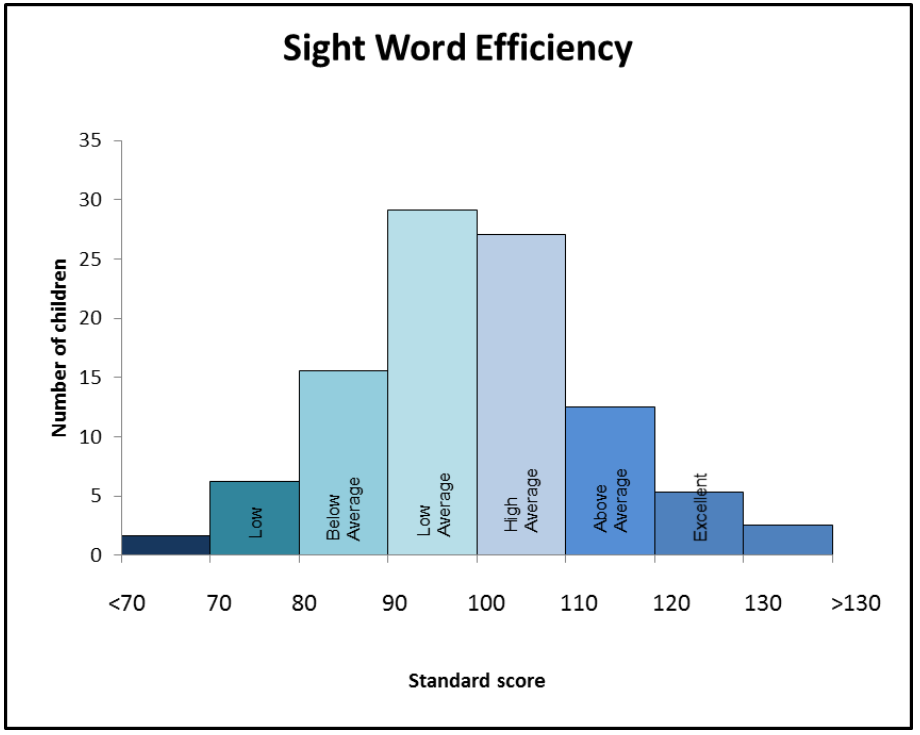
Year 5





Average = 105

Average = 99

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Outcomes workshops

Based on the averages 'Teacher's Dead' was the clear favourite among the group, with 'Wonder' and 'Terror' Kid in the top 3. 'For the Record' was the least favourite book, along with 'The Unforgotten Coat' and 'The Vampire Hunters'.

Based on the averages 'Teacher's Dead' was the clear favourite, with 'Time Machine' and 'Frozen in Time' in the top 3. 'For the Record' was their least favourite, along with 'Terror Kid' and 'The Unforgotten Coat'.

For the record and Unforgotten coat least favourite; Teachers dead, Time machine, Frozen in time favourites

Favourite themes: murder/mystery, thriller adventure/action or comedy