

Teaching & Learning Toolkit: Q&A with lead author, Professor Steve Higgins

Professor Steve Higgins and Dr Tanya Vaughan
Webinar, 23 July 2019



**EVIDENCE
FOR LEARNING**

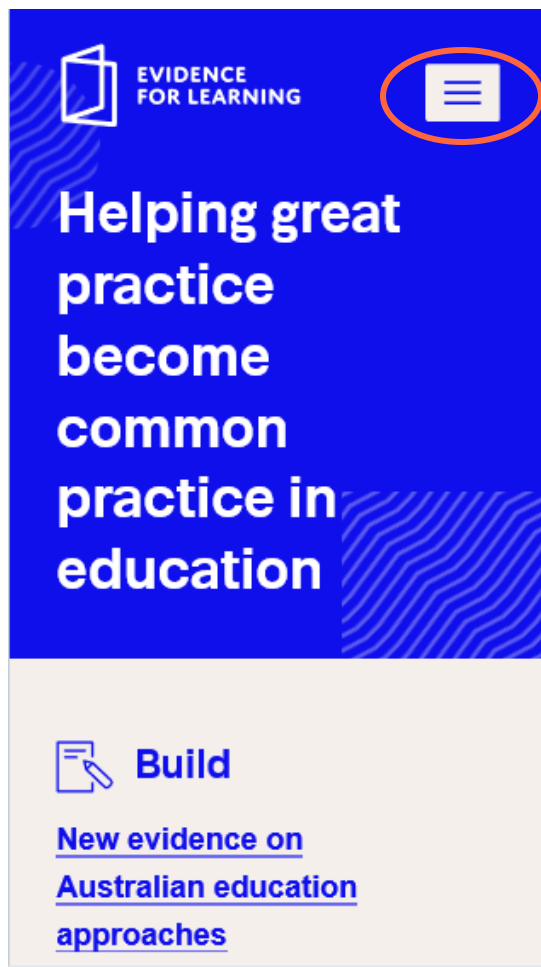
Acknowledgement of Country

We acknowledge the traditional custodians of the land, the elders of the Turrbul People and pay respect to their elders past, present and emerging.

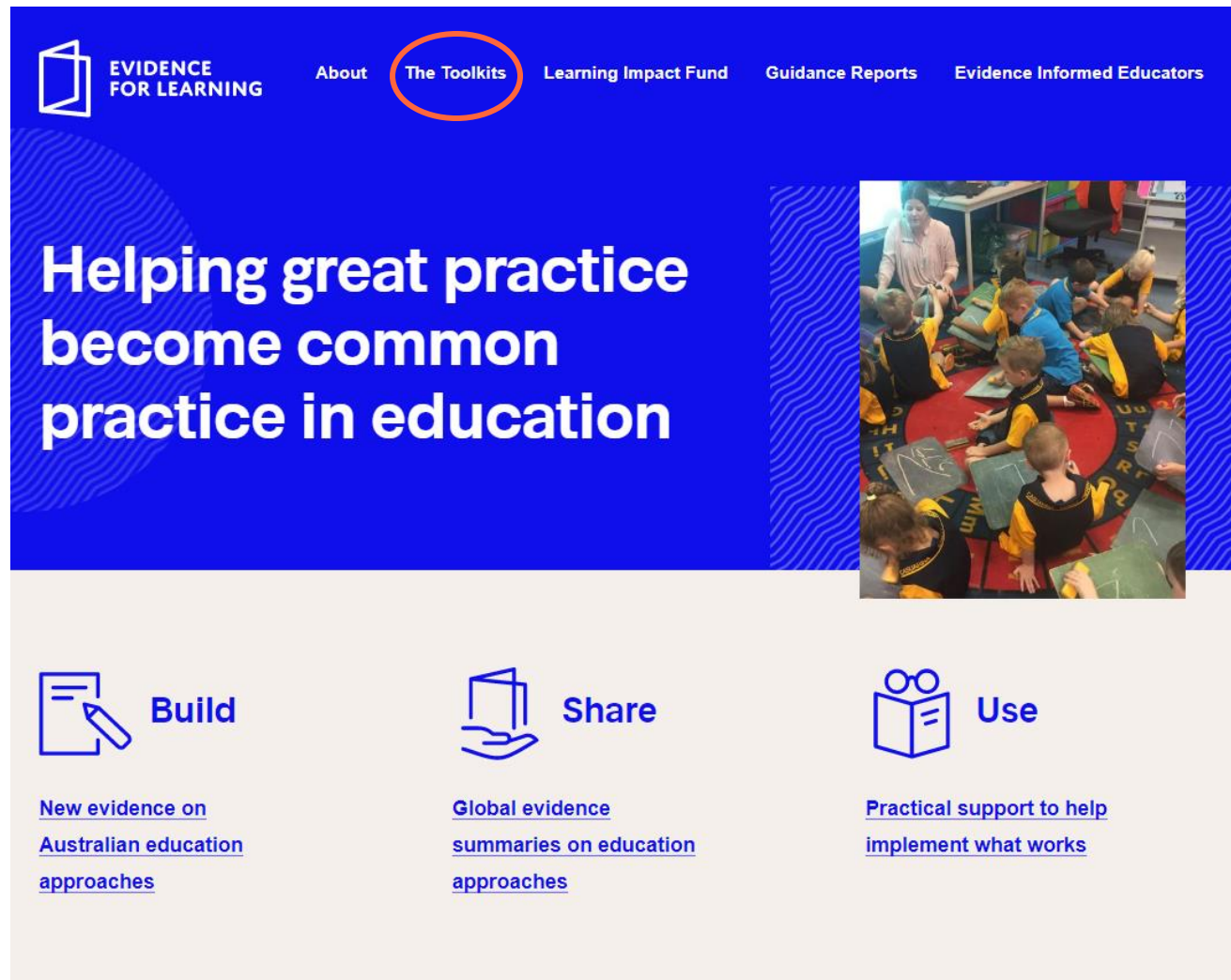


Accessing the Toolkits

Tablet or phone

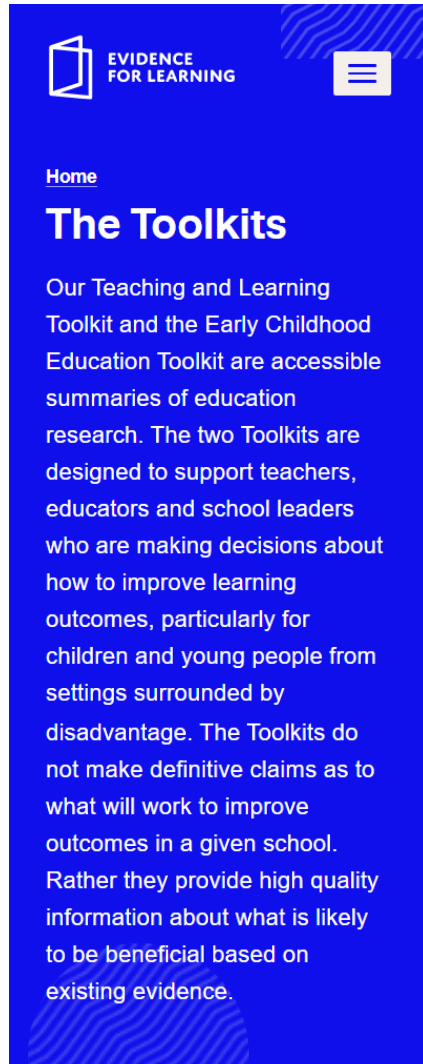


Laptop

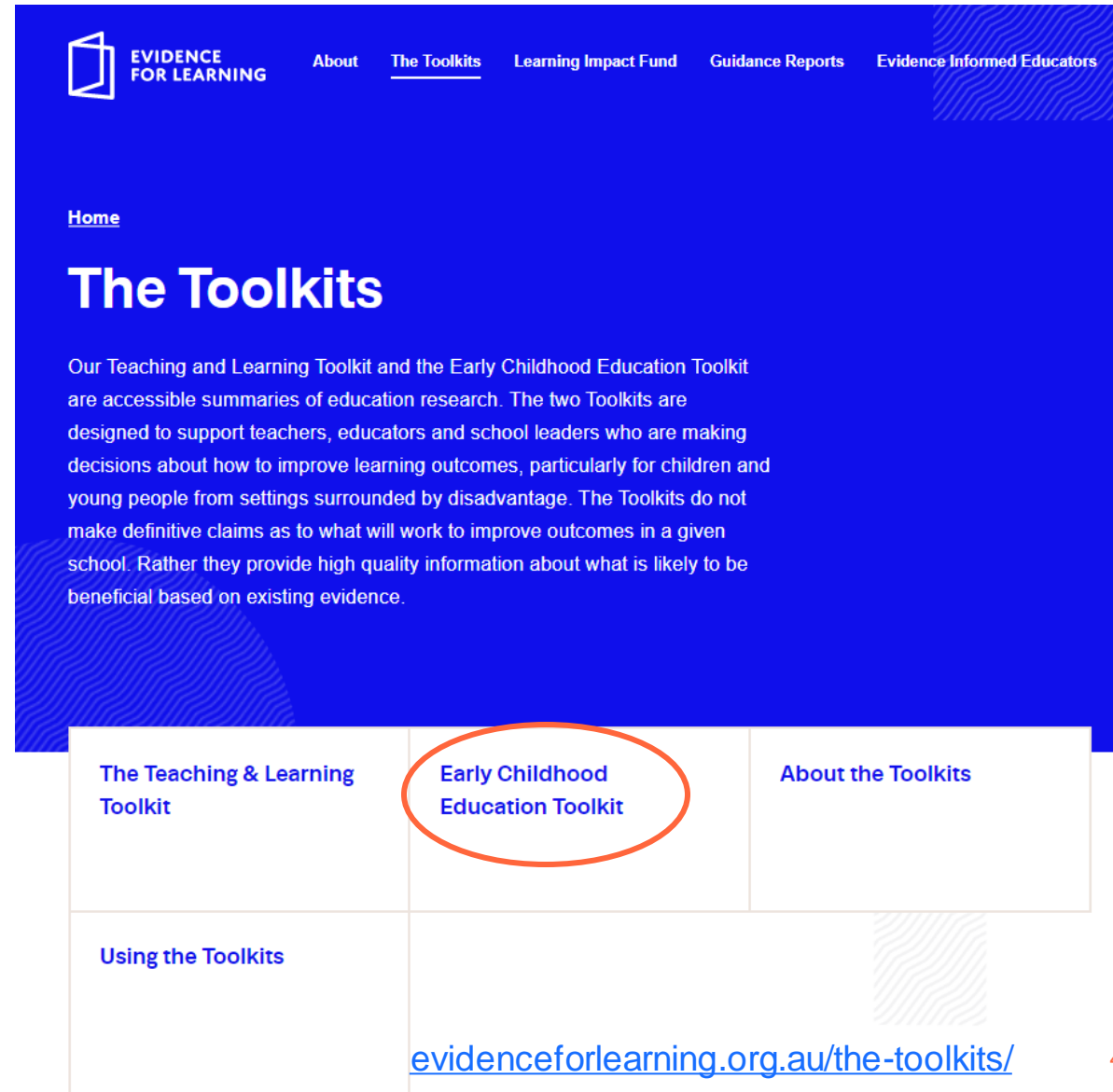


Early Childhood Education Toolkit

Tablet or phone

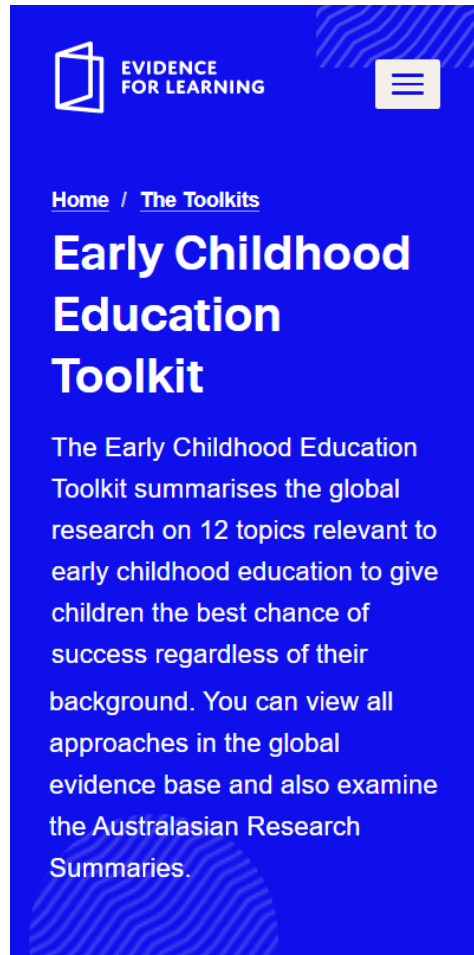


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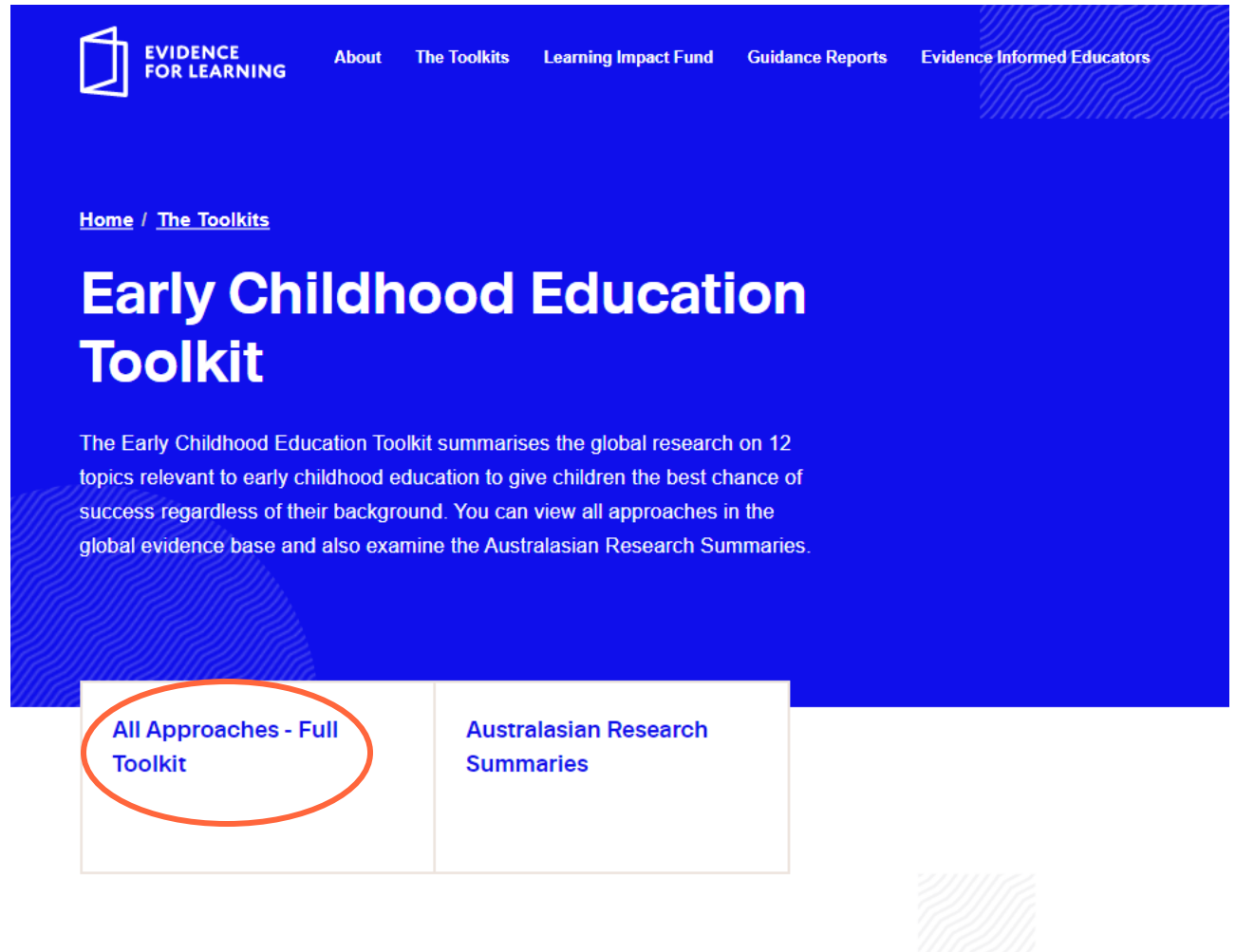


Early Childhood Education Toolkit

Tablet or phone



Laptop



Early Childhood Education Toolkit

Communication and language approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Digital technology	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Earlier starting age	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Early literacy approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Early numeracy approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Extra hours	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+3
Parental engagement	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Physical development approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+3
Physical environment	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	0
Play-based learning	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5
Self-regulation strategies	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+5
Social and emotional learning strategies	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+3

Early Childhood Education Toolkit

Sort by Name ▾	Average cost –	Evidence security –	Months' impact –
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Communication and language approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Digital technology	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Earlier starting age	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Early literacy approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4
Early numeracy approaches	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+6
Extra hours	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+3
Parental engagement	\$ \$ \$ \$ \$	🔒 🔒 🔒 🔒 🔒	+4

Average cost

The approximate cost of implementing an approach.

Evidence security

Based on the quantity and the methodological quality of the available evidence, and the reliability or consistency of impact estimates.

Months' impact

The additional months' progress you can expect children to make as a result of an approach being used.

Approach summary

Tablet or phone

Communication and language approaches

High impact, very low cost, based on extensive evidence

Average cost

\$ \$ \$ \$ \$

Evidence security

🔒 🔒 🔒 🔒 🔒

Months' impact

+6

Overall, studies of communication and language approaches consistently show positive benefits.

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- 2 [How effective is it?](#)
- 3 [How secure is the evidence?](#)
- 4 [What are the costs?](#)
- 5 [What should I consider?](#)
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Further reading

[Australasian Research Summary](#)
[Learning languages early is key to making Australia more](#)

Laptop

Communication and language approaches

High impact, very low cost, based on extensive evidence

Average cost

\$ \$ \$ \$ \$

Evidence security

🔒 🔒 🔒 🔒 🔒

Months' impact

+6

Overall, studies of communication and language approaches consistently show positive benefits.

What is it?

Communication and language approaches emphasise the importance of spoken language and verbal interaction for young children. They are based on the idea that children's language development benefits from approaches that explicitly support communication through talking, verbal expression, modelling language and reasoning. Communication and language approaches used in the early years include reading aloud to children and discussing books, explicitly extending children's spoken vocabulary by introducing them to new words in context, and drawing attention to letters and sounds. They also include approaches more directly aimed at developing thinking and understanding through language, such as 'sustained shared thinking' or 'guided interaction'. Approaches usually involve an early years professional, kindergarten teacher or teaching assistant, who has been trained in the approach, working with a small group of children or individually to develop spoken language skills.

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What is it?

evidenceforlearning.org.au/early-childhood-education-toolkit/communication-and-language-approaches/

8



Approach references

References

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[Reading to Young Children in Educational Settings: A Meta-Analysis of Recent Research](#)
 Language Learning, 49(2), 343-371
 (1999)

3. Correll, K.
[A program evaluation of a conversational instruction program for the vocabulary development of four-year-old students in preschool classes](#)
 EdD Dissertation University of Houston
 (2008)

5. Dunst, C.J., Simkus, A., Hamby, D.W.
[Children's Story Retelling as a Literacy and Language Enhancement Strategy](#)
 Center for Early Literacy Learning (CELL) Reviews 5.2
 (2012b)

7. Goodson, B., Wolf, A., Bell, S., Turner, H., & Finney, P. B.
[Effectiveness of a Program to Accelerate Vocabulary Development Kindergarten \(VOCAB\): First Grade Follow-Up Impact Report and Exploratory Analyses of Kindergarten Impacts](#)
 NCEE 2012-4009. National Center for Education Evaluation and Regional Assistance
 (2011)

9. Marulis, L. M., & Neuman, S. B.
[The Effects of Vocabulary Intervention on Young Children's Word Learning: A Meta-Analysis](#)
 Review of Educational Research, 80(3), 300-335
 (2010)

What Works Clearinghouse (2015)	0.08	-	Language development
Single studies			
Bowyer-Crane, C., Snowling, M. J., Duff, F. J., Fieldsend, E., Carroll, J. M., Miles, J., & Hulme, C. (2008)	1.02	-	Vocabulary
	0.33	-	Grammar
	0.15	-	Narrative
Correll, K. (2008)	0.58	-	Vocabulary
Fricke, S., Bowyer-Crane, C., Haley, A. J., Hulme, C., & Snowling, M. J. (2013)	0.80	-	Language
	0.49	-	Phoneme awareness
	0.31	-	Literacy
Goodson, B., Wolf, A., Bell, S., Turner, H., & Finney, P. B. (2011)	0.15	-	Expressive vocabulary
	0.14	-	Academic knowledge
IES (2010)	0.31	-	Oral language
	0.03	-	Cognition
	0.01	-	Math
Sibieta, L., Kotecha, M. & Skipp, A. (2016)	0.27	-0.94	Language skills (30 week)
	0.16	0.34	Language skills (20 week)
Effect size (weighted mean)	0.47		

Australasian Research Summary

Summary of Australian and New Zealand Research

References

Databases searched

Search terms

Communication and language approaches

Australasian Research Summary



Contents

- 1 Summary of Australasian Research
- 2 References
- 3 Databases searched
- 4 Search Terms

The summary below presents the research evidence on communication and language approaches in the Australasian context.

The Early Childhood Education Toolkit focuses on impact; it presents an estimate of the average impact of communication and language approaches on learning progress, based on the synthesis of a large number of quantitative studies from around the world.

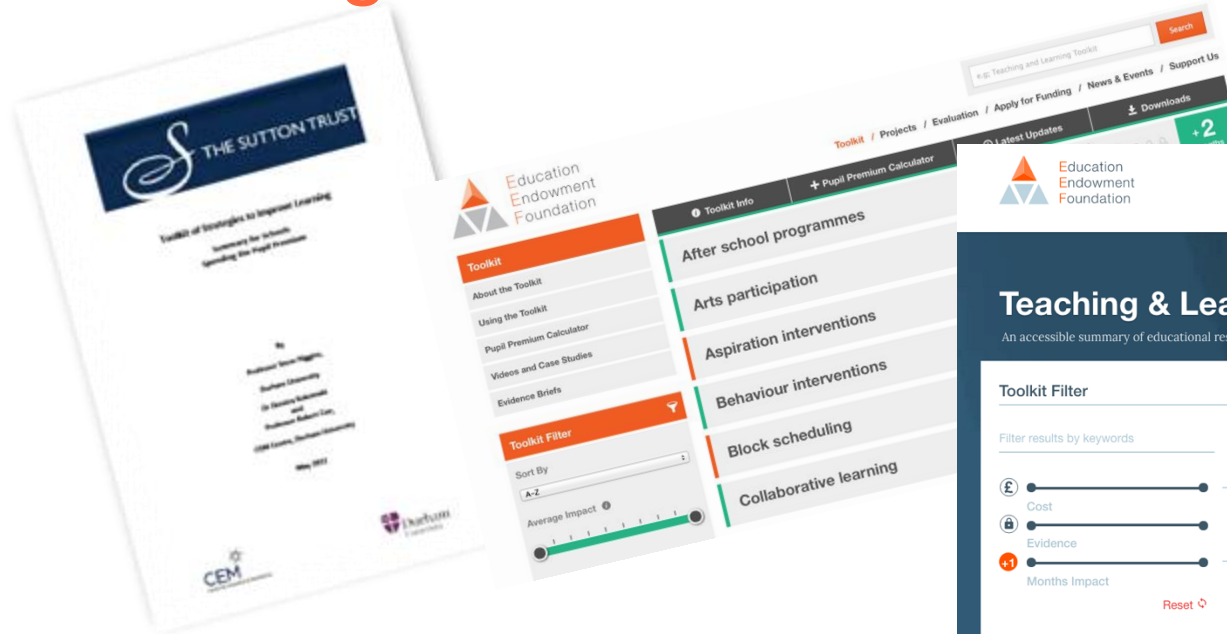
This page offers a summary and analysis of individual Australasian studies on communication and language approaches. In contrast to the Early Childhood Education Toolkit it includes studies which do not estimate impact, but instead investigate the implementation of interventions and how they are perceived by early learning professionals and young learners. This information is valuable for early learning centres interested in finding out more about particular examples of communication and language approaches that have been delivered in Australia and New Zealand.

Telethon Kids Institute generated this summary and it is current for July 2019.

Summary of Australasian Research

Communication and language approaches seek to develop children's receptive and expressive oral language competence. Oral language competence is required for socio-emotional growth and regulation, for the emergence of phonological awareness skills and language necessary to literacy learning, and for expansion of literacy and broader learning.

Background: The UK Teaching & Learning Toolkit



A resource for teachers and schools to support discussion and decision-making

Funded by the Education Endowment Foundation

Currently used by over 60% of schools in England

Toolkit Filter	Toolkit Strand	Cost	Evidence Strength	Months Impact
Filter results by keywords				
£				
Cost				
Evidence				
Months Impact				
Reset				
Feedback				+8
High impact for low cost, based on moderate evidence.				
Meta-cognition and self-regulation				+8
High impact for very low cost, based on extensive evidence.				
Peer tutoring				+5
Moderate impact for very low cost, based on extensive evidence.				
Early years intervention				+5
Moderate impact for very high costs, based on extensive evidence.				
One to one tuition				+5
Moderate impact for high cost, based on extensive evidence.				
Homework (Secondary)				+5
Moderate impact for very low or no cost, based on moderate evidence.				
Collaborative learning				+5
Moderate impact for very low cost, based on extensive evidence.				
Oral language interventions				+5
Moderate impact for low cost, based on extensive evidence.				

Toolkit aims

Cost / benefit analyses to support professional decision-making

Summarise the evidence from meta-analysis about the impact of different strategies on learning (*tested attainment*)

As found in research studies (these are broad averages) with experimental designs

Apply **quality criteria** to evaluations: as rigorous designs as possible (padlocks)

Estimate the **size** of the effect

Standardised Mean Difference = 'Months of gain'

Estimate the **costs** of adopting

(information not always available)



Toolkit principles

Supports professional decision-making in education

Provides an overall picture – ‘good bets’ ‘risky bets’

Tells you what’s *worked* (on average, in other places, for other people)

Compared with ‘usual practice’ (which varies)

May not work for you (but is likely to, on average)



Questions submitted by attendees

How do you derive Effect Size (ES) of $0.1 = 1$ months of progress?

Given Professor John Hattie's dominance in Victorian Schools and his measure that ES of $0.4 = 1$ years progress, why are these so different?

Also, regarding Professor Hattie, why are his top strategies - formerly "Self Report Grades" and now "Collective Teacher Efficacy" not listed on the EEF Toolkit?

Questions submitted by attendees

How can I use the Toolkit to optimise my impact in the classroom, given the obvious restrictions that are extant in a relief teaching context? Which approaches* are the most useful given the limited time I spend with any one class?

*The development of metacognitive thinking and self-regulation and provision of meaningful feedback are a major part of my pedagogy, but it is difficult to implement strategies when I am not consistently with the same group of students.



Questions submitted by attendees

The Latest Edition of Educational Research and Evaluation edited by Adrian Simpson, has at least three academics who detail the problems of comparing effect sizes - Simpson, Wiliam and Wrigley.

- the problem of different tests giving different effect sizes – e.g. Standardised tests versus specific tests.
- the problem of different standard deviations giving different results (Gene Glass also warned of this in his seminal paper). Older papers tend to use the control group Standard Deviation (SD), newer papers tend to use the pooled SD, but each gives a different effect size. How do you account for these variations - what do you do?
- the problem of the interpretation of the paper and the grouping papers together which are not measuring the same thing - e.g. feedback, the person giving the feedback differs, the type of feedback differs, etc. Yet these are all grouped into one effect size.

Questions?



Where to now?

- Join our Evidence Informed Educator Network evidenceforlearning.org.au/evidence-informed-educators/join/
- Webinar series - evidenceforlearning.org.au/evidence-informed-educators/webinars/
- Subscribe to our newsletter for updates evidenceforlearning.org.au/
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