Submission to the ACT Government Literacy and Numeracy Inquiry

26 February 2024

Evidence for Learning (E4L) is pleased to have the opportunity to contribute to the ACT Government Literacy and Numeracy Inquiry.

Since its establishment in 2016, E4L's mission has been to help busy educators – particularly educational leaders – increase learning for students by improving the quality, availability, and use of evidence in education. E4L does this by building evidence of what works, sharing that evidence for all Australian schools, and by supporting the use of that evidence.

Our submission responds specifically to three of the panel's terms of reference (ToR), drawing on our global and Australian evidence bases and our experience of evidence-informed approaches and implementation in the Australian education landscape. We have summarised our evidence, experience and insights aligned with these three ToR's, and provided links to more detailed material where relevant.

1. **Class, whole-school and system-wide approaches and supports that have been proven to improve learning outcomes for all students at each stage of learning and development.**

E4L's Teaching & Learning Toolkit (the Toolkit) summarises the best available global evidence on 30 approaches to lift learning outcomes in schools.

The Toolkit is designed to support educators and educational leaders in making evidence-informed decisions about how to improve learning outcomes, particularly for children and young people experiencing disadvantage. It synthesises rigorous international and Australian research, and presents a wide range of educational interventions, summarised in terms of the average months' worth of learning progress, the strength of the evidence, and the cost. It is a live resource, updated regularly as new studies are published in Australia and internationally.

Three of the approaches in the Toolkit speak directly to the teaching of literacy:
- Oral language interventions – very high impact for very low cost, based on extensive evidence.
- Phonics – very high impact for very low cost, based on extensive evidence.
- Reading comprehension strategies – very high impact for very low cost, based on extensive evidence.

These approaches have, on average, shown to have a significant impact on students' literacy and numeracy outcomes while being cost effective to implement.

Several other approaches in the Toolkit, including metacognition and self-regulation, tutoring, and feedback, have relevance to both literacy and numeracy and are likely to have significant impact on students' learning.
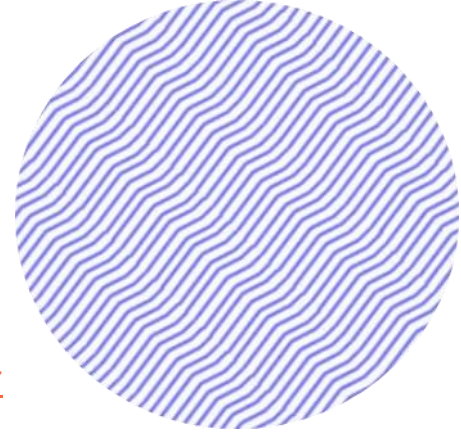
E4L has developed Guidance Reports to provide evidence-informed guidance on specific topics. These include:
- Improving mathematics in the early years with children aged 3–7 years
- Improving mathematics in upper primary and lower secondary
- Improving literacy in lower primary
- Improving literacy in upper primary
- Improving literacy in secondary schools

Mathematics

The recommendations in these Guidance Reports contain common elements for high-quality mathematics teaching for students in the early years through to lower secondary. These include building on prior knowledge, the use of manipulatives and representations and the role of targeted support, as shown in Table 1 below.

Table 1: Summary of recommendations aligned with the mathematics Guidance Reports

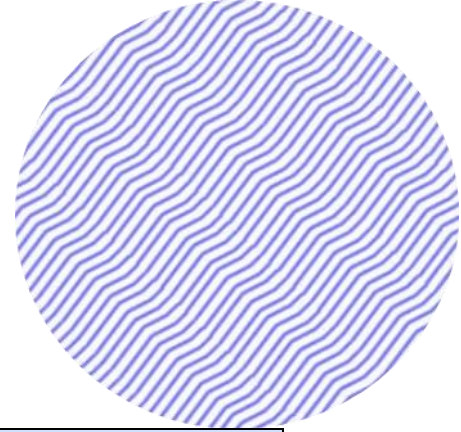|	Improving mathematics in the early years with children aged 3 -7	Improving mathematics in upper primary and lower secondary
Professional learning	• Recommendation 1: Develop educators' understanding of how children learn mathematics	
Dedicate time	• Recommendation 2: Dedicate time for children to learn mathematics and integrate mathematics throughout the day	
Use resources and tasks thoughtfully	• Recommendation 3: Use manipulatives and representations to develop understanding	• Recommendation 2: Use manipulatives and representations • Recommendation 6: Use tasks and resources to challenge and support students' mathematics
Build on existing knowledge	• Recommendation 4: Ensure that teaching builds on what children already know	• Recommendation 1: Use assessment to build on students' existing knowledge and understanding • Recommendation 4: Enable students to develop a rich network of mathematical knowledge
Consider strategies to promote independence		• Recommendation 3: Teach strategies for problem solving • Recommendation 5: Develop students' independence and motivation
Targeted support	• Recommendation 5: Use high quality targeted support to help all children learn mathematics	• Recommendation 7: Use structured interventions to provide additional support
Support transitions		• Recommendation 8: Support students to make a successful transition between primary and secondary school
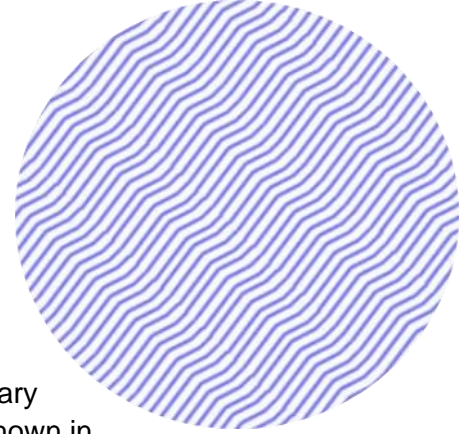
Literacy

The literacy Guidance Reports outline the progression from fundamental understanding to fluency from lower primary to secondary school. Again, there are common elements across the reports, as shown in Table 2 below, with increasingly sophisticated strategies introduced to students as they move through the levels of schooling.

Table 2: Summary of recommendations aligned with the literacy Guidance Reports

	Improving literacy in lower primary	Improving literacy in upper primary	Improving literacy in secondary schools
Language understanding	• Recommendation 1: Develop students' speaking and listening skills and wider understanding of language	• Recommendation 1: Develop students' language capability to support their reading and writing	• Recommendation 1: Prioritise 'disciplinary literacy' across the curriculum • Recommendation 2: Provide targeted vocabulary instruction in every subject • Recommendation 6: Provide opportunities for structured talk
Build reading capability	• Recommendation 2: Use an engaging approach to develop reading which integrates both decoding and comprehension • Recommendation 3: Effectively implement a systematic phonics program • Recommendation 4: Teach students strategies for developing and monitoring reading comprehension	• Recommendation 2: Support students to develop fluent reading capabilities • Recommendation 3: Teach reading comprehension strategies through modelling and supported practice	• Recommendation 3: Develop students' ability to read complex academic texts
Develop writing capability	• Recommendation 5: Teach students to use strategies for planning and monitoring writing • Recommendation 6: Promote fluent written transcription skills by encouraging extensive and effective practice and explicitly teaching spelling	• Recommendation 4: Teach writing comprehension strategies through modelling and supported practice • Recommendation 5: Develop students' transcription and sentence construction skills through extensive practice	• Recommendation 4: Break down complex writing tasks
Build on existing knowledge	• Recommendation 7: Use high-quality information about students' current capabilities to select the best next step for teaching	• Recommendation 6: Target teaching and support by accurately assessing student needs	

|	Improving literacy in lower primary	Improving literacy in upper primary	Improving literacy in secondary schools
Integrate literacy skills			• Recommendation 5: Combine writing instruction with reading in every subject
Targeted support	• Recommendation 8: Use high-quality structured interventions to support students who are struggling with their literacy	• Recommendation 7: Use high-quality structured interventions to support students who are struggling with their literacy	• Recommendation 7: Provide high-quality literacy interventions for struggling students

2.   Specific approaches and supports that are relevant to the learning outcomes of Aboriginal and Torres Strait Islander students, neurodiverse learners, students with learning difficulties, students with disability and other equity cohorts.

E4L is focused on ensuring all students receive a high-quality education, regardless of their socio-economic background. The summary for each approach in the Toolkit contains insights for 'closing the disadvantage gap' to help educators understand the impact of approaches in education on students experiencing disadvantage.

In most cases, the research evidence in these summaries suggests that high-impact approaches are more likely to have an 'outsized' benefit to students who are experiencing disadvantage. For example, students experiencing disadvantage are more likely to start behind their more advantaged peers and are exposed to a narrower vocabulary. Early interventions, including targeted instruction through tutoring approaches, may support students to access the teaching and learning occurring in the classroom.

We know from a wide body of evidence that targeted academic support can have a positive impact on learning, particularly for students who are not making good progress. For example, classroom teachers and teaching assistants can provide targeted academic support – through structured small-group interventions that link to classroom teaching and the curriculum – which complements high-quality teaching taking place in the classroom[1].

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[1] Adapted from the EEF Guide to the Pupil Premium. Education Endowment Foundation. (2023).
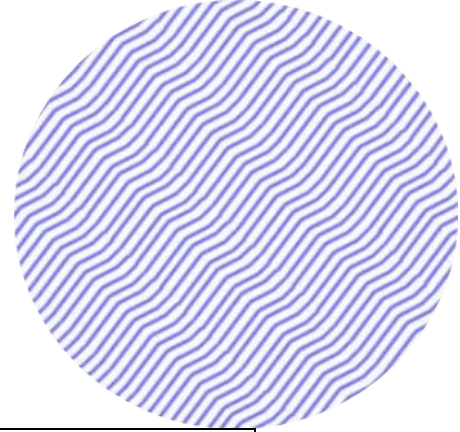
Box 1: What does the global evidence base say about tutoring in literacy and numeracy?[2]

Most schools focus tutoring on one, or both, of these disciplines. There are of course different approaches required in each discipline, and across the spectrum of schooling, but several common elements appear in the evidence.

- High-quality assessment is essential in diagnosing and effectively intervening in both literacy and mathematics.

- Structured interventions can be effective in providing additional support to students where the sessions are evidence-based, engaging and connected to whole-class instruction.

- Interventions should include explicit instruction and be responsive to student needs.

- Modelling and explicitly teaching metacognitive strategies can be beneficial for students as they transition back to the whole-class setting.

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3. Effective and sustainable implementation methods, considering workload implications for educators, support staff and school leaders.

High quality implementation of educational approaches can have a significant impact on improving students' outcomes.[3] One of the characteristics that distinguishes effective and less-effective schools, in addition to what they implement, is how they put those new approaches into practice.[4] A number of reviews of implementation in schools have established that even well-evidenced practices are unlikely to have their full impact, or be sustained, if implementation is overlooked.[5]

Table 3 contains a summary of the E4L Guidance Report recommendations related to implementation, professional development and making the best use of teaching assistants.

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[2] Evidence for Learning. (2021). Implementing and monitoring tutoring initiatives: a guide for school leadership teams. Sydney, Australia.

[3] Mitchell, P. F. (2011). Evidence-based practice in real-world services for young people with complex needs: New opportunities suggested by recent implementation science. Children and Youth Services Review, 33(2), 207-216.

[4] Evidence for Learning. (2019). Putting evidence to work: a school's guide to implementation. Evidence for Learning: Sydney.

[5] Albers, B and Pattuwage, L. (2017). Implementation in Education: Findings from a Scoping Review. Melbourne: Evidence for Learning.
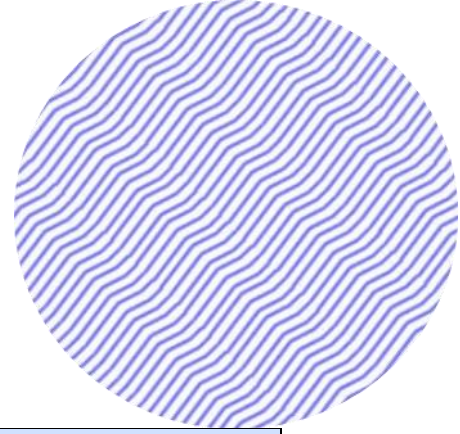
Table 3: Recommendations from E4L Guidance Reports of relevance to the topic of effective and sustainable implementation methods

Guidance Report	Recommendations
Putting evidence to work: a school's guide to implementation contains six key recommendations drawn from a systematic review of research conducted on implementation in school settings.	The six recommendations begin with two foundations of implementation. o Treat implementation as a process, not an event; plan and execute it in stages. o Create a leadership environment and school climate that is conducive to good implementation. The four subsequent recommendations outline the stages of implementation: o Explore: define the problem you want to solve and identify appropriate approaches to implement. o Prepare: create a clear implementation plan, judge the readiness of the school to deliver that plan, then prepare staff and resources. o Deliver: support staff, monitor progress, solve problems, and adapt strategies as the approach is used for the first time. o Sustain: plan for sustaining and scaling an intervention from the outset and continuously acknowledge and nurture its use.
Making best use of Teaching Assistants (TAs), supports school leaders to think about the most effective way to deploy TAs and structure learning support.	The effective use of TAs under everyday classroom conditions: o TAs should not be used as an informal teaching resource for students who are low attaining. o Use TAs to add value to what teachers do, not replace them. o Use TAs to help students develop their independent learning skills and manage their own learning. o Ensure TAs are fully prepared for their role in the classroom. The effective use of TAs in delivering structured interventions out of class: o Use TAs to deliver high quality one-to-one and small group support using structured interventions. o Adopt evidence-based intervention to support TAs in their small group and one-to-one instruction. Integrating learning from work led by teachers and TAs: o Ensure explicit connections are made between learning from everyday classroom teaching and structured interventions.
Effective Professional Development, highlights the key features (mechanisms) which make PD impactful.	o When designing and selecting PD, focus on the mechanisms of effective PD, such as managing cognitive load of teachers, setting and agreeing on goals, modelling the technique, and prompting action planning. o Ensure that PD Effectively builds knowledge, motivates staff, develops teaching techniques, and embeds practice. o Implement PD programs with care, taking into consideration the context and needs of the school.
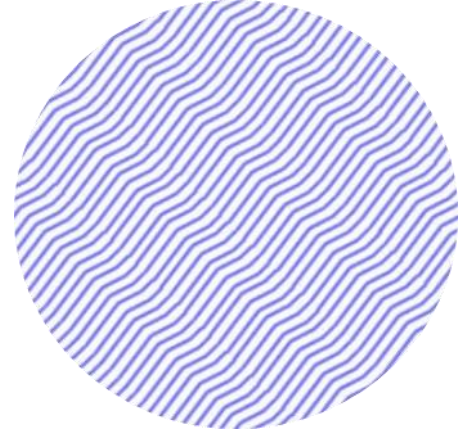
In addition to the evidence summaries, E4L has supported several systems to implement sustainable changes and improve outcomes for students. Two of these examples are outlined below.

Northern Territory Learning Commission (NTLC)

The NTLC is an initiative placing students at the center of leading research and providing evidence-informed recommendations alongside their teachers and school leadership teams to improve practice within their own school, across regions and the entire system. E4L has been a partner of this work since 2017.

Students Commissioners from 40+ schools in the NT are supported over the course of a year to explore data, diagnose challenges, investigate research evidence and develop appropriate responses to contextual challenges, contributing to the improvement of their schools and systems.

Many of the school improvement priorities Commissioners have identified in recent years have related to literacy and numeracy. For example, one primary school investigated differences between mathematics scores and reading engagement, leading them to develop strategies to improve reading comprehension, a link they'd made while exploring the Toolkit. Several other schools have explored the role of effective feedback in improving outcomes, and in improving behaviour to create positive learning environments.

Bringing students in as partners in their learning has proved to be a successful model for school improvement, with schools and systems responding to the high expectations driven by students around learning.

Tutor Learning Initiative (TLI)

E4L developed a guide to support implementation of tutoring approaches initiated in various states in response to the impact of Covid-19 on students' progress in literacy and numeracy.

The guide was developed to apply to various tutoring approaches – one to one or small-group tuition, online or in-person – and takes into account that schools are at different stages of their tutoring implementation journey.

The guide aims to support regional staff to understand the best available global evidence on tutoring and the characteristics of the most successful tutoring approaches, and the emerging evidence on effective implementation of tutoring initiatives.

E4L has summarised insights on evidence mobilisation and implementation in a recent submission made by Social Ventures Australia to the Review to Inform a Better and Fairer Education System. The submission highlighted that educators are key to the improvement of outcomes for students. Schools and systems should focus on behavioural incentives and capability building mechanisms so educators are empowered to be and see themselves as experts, confidently using evidence to make good decisions, dozens of times a day.
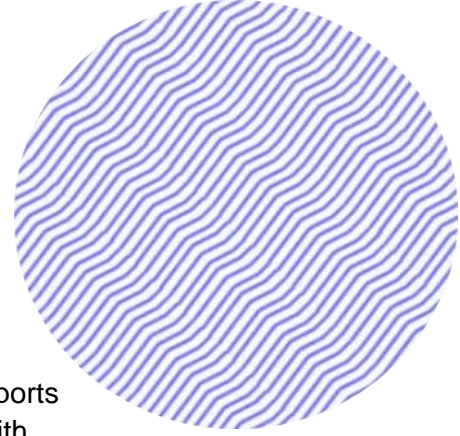
One example of how to encourage evidence mobilisation and implementation is via a School Innovation and Evaluation Fund that supports educators and schools to generate high-quality evidence on initiatives with potential for scale, with a focus on issues and contexts relevant to improving equity in student outcomes.

The submission calls for a national School Innovation and Evaluation Fund, which the ACT Government could advocate for, or the ACT Government could establish a similar style local innovation and evaluation fund to support ACT schools to design and pilot specific teaching and learning practices based on the best available evidence on effective literacy and numeracy approaches.

You can read more about SVA and E4L's recommendations for establishing a school innovation and evaluation fund outlined in the submission here.

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