

Literacy and Numeracy Education Expert Panel

Achieving equity and excellence through evidence-informed consistency

Executive Summary

April 2024



ACT
Government

EXECUTIVE SUMMARY

The Literacy and Numeracy Education Expert Panel (the Panel) was established by the ACT Government in November 2023 to provide the Minister for Education and Youth Affairs (the Minister) with independent advice on how to address equity gaps and achieve ongoing improvement in literacy and numeracy outcomes in ACT public schools.

The Panel comprises 5 education experts:

- Professor Barney Dalgarno (University of Canberra, Chair)
- Professor Mary Ryan (Australian Catholic University)
- Professor Pauline Jones (University of Wollongong)
- Professor Catherine Attard (Western Sydney University)
- Mr Tim McCallum (NSW Department of Education).

The Panel was tasked with developing targeted recommended actions that could be implemented to further existing efforts and achieve sustainable class, whole school and system-wide approaches to literacy and numeracy achievement from preschool to year 12 in ACT public schools.

The inquiry process involved a combination of engaging with evidence, consultation with stakeholders and consideration of how proposed changes could be implemented.

Commencing with an extensive review of research, reports and school system data, along with engagement with experts and national research organisations, the Panel's initial focus was on evidence-informed approaches to literacy and numeracy education.

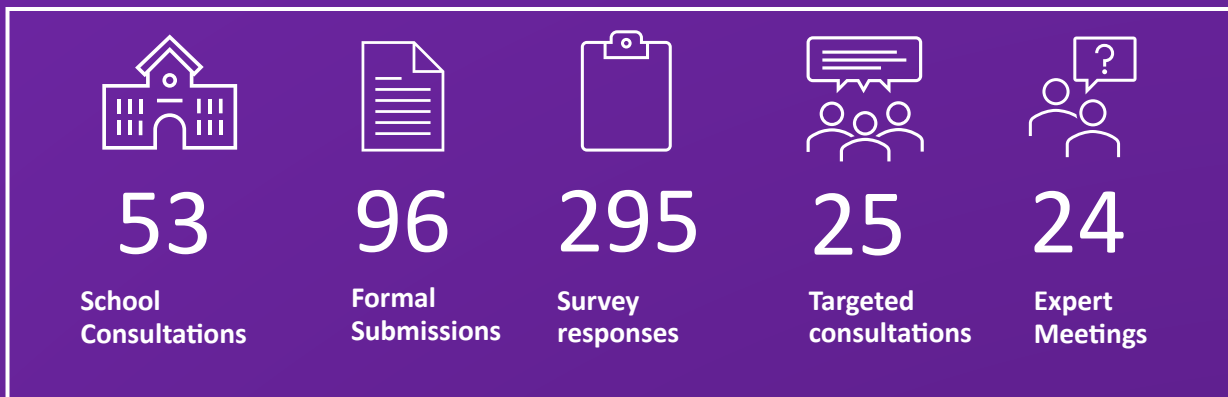
The Panel released a Consultation Paper on 15 December 2023, which set out the context for the inquiry, initial observations of the Panel and provided 20 consultation questions to inform submissions to the inquiry. The Consultation Paper was informed by various reports from other governments, research organisations and experts. An online community survey was also conducted to easily capture individual stakeholder views.

Following an extension, submissions and survey responses closed on 28 February 2024. At the conclusion of the inquiry process, a total of 96 submissions were received, along with 295 responses to the survey.

To ensure the views of key stakeholder and audience groups were thoroughly considered by the Panel, a public consultation process was also undertaken between December 2023 and April 2024. This included visits to 53 ACT public schools and targeted engagement with students, teachers, school leaders, families, professional organisations and community groups. Feedback from the consultation process has been considered by the Panel and is reflected in the report. A full Consultation Report is available via the inquiry website [here](#).

Throughout the consultation process, the Panel met with incredibly passionate and deeply considered teachers who were excited and motivated to engage in reflective conversations about what is happening in classrooms, schools and across the system. Hearing directly from diverse students, teachers, families and community organisations showed the Panel that while there are

some differences of opinion, there is a broad desire across the ACT community for a more consistent public school system.



The Panel observed that the ACT public school system is highly autonomous, with principals empowered by the system to make local decisions on curriculum implementation, teaching, assessment practices, professional learning and school management. While some stakeholders valued this level of autonomy, others suggested that it meant the system acted more as a collection of independently run schools, resulting in a high degree of variability between schools, with significant workload implications for both teachers and school leaders.

The Panel heard from experts and research organisations that for a system to improve literacy and numeracy outcomes, it must act with a greater level of consistency and specificity in relation to: what is taught; how it is taught; what, when and how to assess; and how to provide targeted support when students are not learning effectively.

In relation to specific literacy and numeracy education practices, the Panel heard a range of diverse views and engaged with experts from different fields.

Following the consultation process, the Panel considered the arguments and evidence presented, alongside research reviewed and the current context of ACT public schools. The focus of observations and analysis was aligned with the Terms of Reference, seeking to improve literacy and numeracy outcomes for all ACT public school students.

The Panel identified 14 findings based on research and evidence related to improving literacy and numeracy education and outcomes. These findings informed the development of recommendations for the Minister.

The Panel propose 8 recommendations for system improvement for the Minister to consider. The aim of these recommendations is to ensure that a best practice approach to literacy and numeracy education is sustainably delivered in every ACT public school. Central to the recommendations is a focus on shifting the way ACT public schools are supported, to a more centralised approach.

8 RECOMMENDATIONS



1. A system-wide approach

The Directorate should implement a system-wide model of curriculum implementation, teaching, assessment and professional learning, to achieve greater consistency across ACT public schools.



2. A culture of high expectations that prioritises learning

The Directorate should develop a system-wide approach to leadership development with a focus on strengthening a culture of high expectations and a priority focus on learning.



3. A consistent and centrally supported curriculum

The Directorate should adopt a centralised and consistent approach to supporting ACT public schools to deliver Australian Curriculum literacy and numeracy content.



4. Evidence-informed teaching

The Directorate should develop a consistent approach to teaching in ACT public schools that aligns to an evidence-informed teaching framework, with quality professional learning and coaching.



5. Consistent assessment and diagnostic tools

The Directorate should develop an assessment strategy supporting informed decisions to improve learning outcomes. Include mandated progress assessments, a suite of diagnostic tools and a new data management system



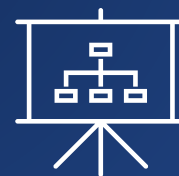
6. A Multi-Tiered System of Supports in every school

The Directorate should work to support every public school to adopt an appropriate Multi-Tiered System of Supports model, meeting students at their point of need. The aim should be to equitably support every student to achieve their maximum learning gain.



7. Listen to and engage students, families and the community

The Directorate and schools should proactively engage with students, families and the community to improve literacy and numeracy outcomes.



8. Effective implementation

The Directorate should implement recommendations using a change management approach involving collaboration and phased actions that are responsive to data.

14 FINDINGS FROM THE EVIDENCE

1. THERE ARE CONSISTENT CHARACTERISTICS OF HIGH PERFORMING SYSTEMS

Research has been conducted into high performing systems based on their academic results and equity outcomes. Based on the research, it is likely that the following features enable a system to be high performing in relation to literacy and numeracy outcomes:

- clear system vision, mission and goals linked with school planning and review cycles
- a system-wide culture of high expectations with a focus on learning
- system leadership which prioritises effective instruction and management of resources
- a rigorous and ambitious curriculum adopted across the school system
- instructional leadership in schools
- school-based and system-wide assessments of student learning which are regularly monitored
- ensuring intervention supports provided for students who need them
- recruitment, training and retention focused on ensuring teachers and school leaders are effective
- accountability mechanisms focused on learning outcomes.

2. THERE ARE CONSISTENT CHARACTERISTICS OF HIGH PERFORMING SCHOOLS

Research has been conducted into high performing schools based on their academic results and equity outcomes. Based on the research, the following features of schools enable a system to be high performing in relation to literacy and numeracy outcomes:

- clear and shared vision, mission and goals
- high expectations culture that prioritises learning
- a positive and supportive learning environment with consistent strategies for managing student behaviour
- leadership focused on instruction and effective resource management
- a rigorous school-wide curriculum aligned with a state/national curriculum
- high quality instruction informed by evidence
- regular assessment used to inform planning and adjustments
- additional support provided to students who need it
- a collaborative culture of learning amongst staff
- strong family and community involvement.

3. INTENTIONAL PLAY-BASED LEARNING IS EFFECTIVE IN PRESCHOOL

Intentional play-based learning is the best approach to education in preschool settings. When preschool teachers intentionally design play-based learning activities, they can support every child to build the foundational literacy and numeracy knowledge and skills essential for transition to kindergarten and long-term success. Preschool teachers should ensure that they assess students against developmental milestones related to their literacy and numeracy learning and use the information obtained to start conversations with families and for potential referral to other professionals for diagnostic assessment where necessary.

4. EVIDENCE-INFORMED TEACHING IMPROVES THE LEARNING OF ALL STUDENTS

There is clear evidence about the most effective teaching strategies and approaches. These approaches improve the quality of learning for all students. The following teaching approaches are best supported by evidence for use in classroom settings on a regular basis to ensure students learn effectively:

- consistent routines
- explicit teaching
- scaffolding
- multiple exposures and guided practice
- questioning and checking for understanding
- cooperative and collaborative learning
- feedback
- differentiation
- guided inquiry
- self-regulation and metacognitive strategies.

5. THERE ARE SPECIFIC LITERACY TEACHING PRACTICES THAT SHOULD BE COMMON IN CLASSROOMS

5a. Preschool literacy

Teachers should:

- use play activities drawing upon phonological awareness (e.g. words in sentences and rhyme) and the concept of letter-sound relationships
- support students to develop foundational writing skills through mark making, using images and approximations of letters and words to convey meaning, apply direction of writing in English, begin writing their own name and begin to use appropriate pencil grip
- incorporate literacy into all aspects of the day through a language rich environment where students are engaged in conversations through play
- facilitate intentional play-based learning that incorporates foundational literacy skill development through storytelling, shared reading and singing.

Systems should:

- provide professional learning to preschool teachers to deepen knowledge of early literacy development aligned to the Early Years Learning Framework.

5b. Primary reading

Teachers should use a systematic approach that includes:

- opportunities for oral language development
- explicit teaching of phonological awareness and phonics
- use of decodable readers rather than predictable readers to teach decoding and blending
- use of predictable/levelled readers only after decoding capabilities have been well established
- discontinuing the use of multi-cueing for teaching word recognition, while encouraging more sophisticated reading strategies, including the use of semantic and syntactic cues, once decoding and blending are well established
- vocabulary, comprehension and fluency development using a range of quality text types
- opportunities to use developing reading skills in writing tasks that demonstrate the close relationship between reading and writing

- regular use of phonological awareness and phonics diagnostic instruments which include both words and non-words for reliable assessment of children’s decoding skills
- reliable instruments and methodologies for assessing reading fluency and comprehension
- discontinuing the use of the running records methodology for learning progress assessment given its lack of reliability however, allowing for its use as a formative tool
- to understand student reading strategies in a way that complements other rigorous and reliable testing tools.

5c. Primary writing

Teachers should use an approach that includes a combination of:

- explicit teaching, guided practice and independent writing
- explicit teaching and structured activities to develop knowledge and capabilities relating to spelling, grammar, punctuation, sentence structure and vocabulary
- writing opportunities that build students’ motivation to write including focused activities and creation of whole texts of varying lengths that consider audience, purpose, subject matter and different modes and media
- teaching students to assess their own and others’ drafts, to give students additional feedback and insight into effective writing strategies
- development of student understanding of the writing process and strategies to plan, draft and refine writing
- explicit questioning and feedback on students’ linguistic choices within texts
- opportunities to practice text structure, vocabulary selection and spelling patterns across reading and writing lessons
- reliable instruments and methodologies for assessing spelling and writing capabilities.

5d. Secondary literacy

Teachers should:

- use explicit questioning and feedback on students’ language choices appropriate for the discipline.

Schools should:

- develop reading comprehension and literacy skill development through the provision of an ambitious knowledge-rich curriculum
- ensure responsibility for development of students’ literacy capabilities is shared across all discipline areas
- make clear that all subject teachers are also responsible for developing and supporting students to develop discipline-specific reading and writing capabilities
- support teachers to explicitly teach discipline-specific communication practices, subject specific reading strategies and specialised vocabulary.

Systems should:

- support secondary teachers with professional learning on how to ensure the development of discipline-specific literacies
- provide secondary teachers with conceptual scaffolds for developing students’ generic, advanced and discipline specific writing capabilities.

6. THERE ARE SPECIFIC NUMERACY TEACHING PRACTICES THAT SHOULD BE COMMON IN CLASSROOMS

6a. Preschool numeracy

Teachers should:

- use play based learning that intentionally exposes students to single digit numbers and begins engagement with forward number sequences and counting
- embed numeracy concepts (such as patterns, sorting and counting) and vocabulary (such as more than, fewer, first, below) within student and teacher-led activities
- engage students in discussions about mathematical ideas and concepts, by building on stories or extending conversations
- provide materials to students that allows exploration of mathematical concepts, such as blocks, puzzles and loose materials to sort, count, or classify
- assess students' current understanding (through observation, talking to students, or formative assessment) to ensure opportunities to build upon what they already know.

Systems should:

- Provide professional learning to support preschool teachers to develop their understanding of numeracy and mathematical concepts, how students develop this knowledge and how to assess student understanding, aligned to the EYLF.

6b. Primary numeracy

Teachers should:

- focus on foundational numeracy concepts (e.g. number sense, place value, patterning, algebraic, additive, multiplicative, proportional thinking, geometric properties, chance, representing data) through activities involving concrete manipulatives
- regularly draw upon the concrete-representational-abstract (CRA) approach to progress from concrete manipulatives, to visual representations and on to abstract representations within mathematical procedures
- teach foundational concepts through and alongside problem solving to develop reasoning, mathematical communication and fluent application of core mathematical facts, operations and strategies
- ensure children are able to describe their problem solving strategies orally to demonstrate understanding of the foundational concepts
- continue to revisit foundational numeracy concepts as new procedural mathematical skills are taught.

Systems should:

- develop the numeracy education confidence and capability of primary school teachers with a focus on deepening teachers' mathematical knowledge and pedagogy, ensuring teachers are provided with modelled practice that develops their understanding of evidence-informed numeracy activities that develop both core skills and mathematical thinking.

6c. Secondary numeracy

Schools should:

- ensure mathematics is taught in a systematic and sequential way across the school, with regular formative and summative assessment of student knowledge and capabilities
- ensure responsibility for development of students' numeracy capabilities is shared across all discipline areas

- make clear that all subject teachers are also responsible for developing and supporting students to develop discipline-specific numeracy capabilities.

Systems should:

- provide exemplar resources that demonstrate to teachers how to support the development of discipline-specific numeracy capabilities
- provide those teaching mathematics out-of-area with access to a suite of additional professional learning opportunities, guides and resources
- provide opportunities for additional formal study for those teachers without formal qualifications in mathematics but who are interested in teaching mathematics long-term.

7. THE EVIDENCE COMPELS SCHOOL SYSTEMS TO ADOPT CONSISTENT APPROACHES

Enough is known and agreed upon in relation to high quality literacy and numeracy education in primary and high schools and colleges to support systems to determine and prescribe core approaches across all schools.

8. WHEN IMPLEMENTED EFFECTIVELY, A HIGH QUALITY KNOWLEDGE-RICH CURRICULUM IMPROVES OUTCOMES

A high quality and knowledge-rich system curriculum is essential to providing excellent literacy and numeracy outcomes. Any system curriculum can only be implemented effectively with associated resources and professional learning. When teachers are provided with curriculum resources (planning documentation, programs, textbooks and digital learning resources) and are trained to use them effectively, student outcomes improve. Planning documentation that is user-friendly, including guides for relevant activities and resources, can reduce teacher workloads, enabling additional time to focus on differentiation and targeted support. High quality literacy and numeracy curriculum requires designated literacy and numeracy leaders within each school to ensure support on curriculum interpretation, use of resources and implementation of appropriate practices is available to all staff.

9. A CONSISTENT APPROACH TO ASSESSMENT ACROSS A SYSTEM ENSURES EVERYONE UNDERSTANDS STUDENT PROGRESS AND NEEDS

School systems that improve literacy and numeracy outcomes have developed a system-wide assessment strategy that enables regular monitoring of student learning through:

- universal screening
- diagnostics
- monitoring student progress through curriculum and progressions
- assessment that informs key transition points
- a suite of formative reliable assessment tools for regular use in classrooms to understand progress across literacy and numeracy knowledge and skills.

Across all schools, an annual literacy and numeracy screening assessment process is an effective strategy for identifying students needing targeted small group or one-on-one intervention, with a particular priority for students from equity cohorts.

In primary schools, in addition to on-paper and online assessments, schools should embed specific literacy and numeracy assessment practices that include one-on-one oral assessment allowing a teacher to determine whether capability has been mastered or

conceptual understanding has been obtained (using concrete objects where appropriate for numeracy).

Adopting a system-wide approach enables students, teachers, school leaders, families and system leadership to understand student progress and needs. Importantly, universal screening and consistent learning progress monitoring across the system can help schools and systems to identify those students who have indicators of learning difficulties or disability. Early identification is important to ensure additional assessments can be conducted if required and enable appropriate modifications or resource allocations.

A transition literacy and numeracy skills assessment is best able to support student transitions between schools when the assessment is conducted and provided to the new school prior to the transition, enabling planning for adjustments and support to occur if needed.

10. SCHOOLS CAN MEET THE INDIVIDUAL NEEDS OF STUDENTS THROUGH DIFFERENTIATION AND TARGETED SUPPORT

While most students will learn effectively using high quality and well differentiated classroom teaching, some students require more extensive differentiation, small group or one-on-one support. These are best delivered through a school-based Multi-Tiered System of Supports (MTSS) model, centrally developed and supported.

An effective tiered model of support at the school level includes:

- school-wide agreement to follow assessment-based decision-making that objectively identifies the appropriate levels of support for students to successfully engage in learning
- universal screening assessments to identify students who need additional support, followed by diagnostic assessments for these students to align intervention to the skill gaps identified
- delivery of a coordinated system of tiered supports including high quality and evidence-informed practice in all classrooms, small group programs and one-on-one intervention
- use of intervention monitoring tools to track progress, ensuring that interventions are having the intended impact and allowing for students to exit support when no-longer needed.

11. EXPERTISE AND ENGAGEMENT ARE ESSENTIAL TO SUPPORTING STUDENTS FROM EQUITY COHORTS

All students are capable of achieving significant growth in their educational outcomes, when provided with evidence-informed teaching in the appropriate learning environment. To support equity cohorts, systems should engage with families and communities as valuable partners. Firstly, by ensuring there is a strong level of expertise, particularly within the central system office, education systems can ensure that evidence-informed programs and supports are provided. External organisations may also have an important role to play in bridging knowledge gaps, particularly when expertise is highly specialised (for example: specialised instructional practice or allied health services). Secondly, engaging with families and community members from equity cohorts will allow policy and program design to be informed by those who know students best.

12. ONGOING TARGETED PROFESSIONAL LEARNING AND SYSTEM SUPPORT IS ESSENTIAL TO IMPROVING LITERACY AND NUMERACY OUTCOMES

Systems and schools that continue to improve literacy and numeracy outcomes provide all school staff with ongoing and targeted professional learning. System supports should be designed to enable:

- teachers and school leaders to effectively collaborate within and across schools
- system curriculum to be understood and delivered in classrooms effectively
- teaching practice to be continually developed and aligned with evidence-informed practices
- assessments to be used effectively
- tiered supports to be provided to students
- teacher and school leader workloads to be kept manageable.

13. ENGAGING WITH STUDENTS, FAMILIES AND THE COMMUNITY IMPROVES OUTCOMES

When engaging directly with students, families and the community, schools can foster engagement, trust and supportive relationships that help to improve learning outcomes.

When developing an approach to engagement, schools and systems should consider:

- working proactively to ensure schools are welcoming and inclusive spaces for all students and families
- authentically including, listening to and responding to student voice to inform contextual approaches to teaching
- providing clear, informative and timely information to families ensuring communication is inclusive and caters for the needs of diverse families
- ensuring there are regular opportunities for in-person and online engagement with families
- ensuring that families of students who are struggling with learning have the information they need to support their children at home
- collaborative development of partnerships and connections with Aboriginal and Torres Strait Islander communities that promote cultural safety and self-determination.

14. IMPLEMENTATION IN EDUCATION SHOULD BE PLANNED, COLLABORATIVE AND RESPONSIVE TO DATA

Through using change management approaches that include collaboration with key stakeholders, implementation of a system-wide approach is possible. Generally responding to challenges that have emerged in the system, implementation must be linked with transparent measures of success and involve collaborative monitoring and evaluation.

Effective implementation involves consideration of the following:

- reviewing research and evidence on the challenge, seeking to identify solutions and how other systems have responded to similar challenges
- involving key stakeholders as part of work to define the challenge and establishing a need for change to support engagement throughout the process
- development of an evidence-informed approach to address the challenge through collaboration with key stakeholders, developing agreed goals with realistic timeframes
- development of an implementation plan that delivers the system-wide approach in phases, linking with school improvement planning and review cycles
- development of an evaluation plan that includes agreed and transparent measures of success

- development of a communication strategy tailored to the needs of different stakeholders, embedding common language across the system
- working with school leaders to create a system leadership environment and school environments conducive to implementation
- commencing early implementation in schools identified as most ready for change which helps to create exemplars of practice
- providing external support to school leaders and staff throughout implementation to locally monitor and evaluate progress enabling adaptation of the plan/strategies where required
- planning to sustain the reform effort with a culture of continuous improvement.

How the ACT public school system would function if recommendations are adopted:

