



Research Agenda 2024



The Australian Education Research Organisation (AERO) produces a Research Agenda that identifies the high-level priority areas on which it will work. These priorities are underpinned by AERO's vision of achieving excellence and equity in educational outcomes for all children and young people through effective use of evidence.

AERO has identified these priorities by considering *demand* (the areas the education community nominate as the most pressing challenges), *impact* (the areas the evidence base suggests would most improve excellence and equity in educational outcomes) and *capability* (the areas in which AERO is distinctly capable of making an impact on educational outcomes).

1. Maximising the potential of education data
2. Promoting the evidence that already exists
3. Generating new evidence to improve outcomes



Maximising the potential of education data

Australia collects a significant amount of data about early childhood education and care (ECEC) services and schools. AERO has been building its infrastructure and capability to work with this data securely and ethically, and has begun linking and analysing a range of datasets to investigate complex policy questions. AERO will leverage large-scale datasets to identify trends, challenges and opportunities in Australian education and produce actionable insights that educators, teachers, leaders and policymakers can use to improve participation and outcomes in ECEC services and schools.





Promoting the evidence that already exists

Since establishment, AERO has undertaken systematic literature reviews to identify the teaching practices with the most rigorous and relevant evidence behind them. To support educators, teachers and leaders across ECEC and schools to access, learn from and put into practice this high-quality evidence, AERO will continue to develop guidance and practical resources that synthesise, translate and curate research in relevant and accessible ways. AERO will also support implementation across schools and ECEC services to draw out generalisable insights about how best to support educators, teachers and leaders to improve their practice.

Evidence-based practice in ECEC and schools

Teaching practices that are aligned with how children and young people learn are the most effective in improving education outcomes for all. AERO will continue to promote these evidence-based practices across ECEC and schools, particularly through reviewing evidence from cognitive and developmental science and producing practical resources and professional learning that synthesises, translates and curates this evidence.

Evidence-based approaches to improving aspects of child and student wellbeing linked to learning

Acknowledging there is a large body of evidence showing certain aspects of wellbeing (such as a sense of belonging) are correlated with improved learning outcomes, AERO will undertake further work to identify evidence based-practices in school settings for improving aspects of child and student wellbeing linked to learning. This will involve examining research literature and advising on international and domestic approaches.

Evidence-based teaching of foundational literacy and numeracy skills

In 2015, 11% of Year 3 students were at or below national minimum standard (NMS) in reading, and 15% were at or below NMS in numeracy. By 2021, when these students were in Year 9, 23.8% were at or below NMS in reading and 17.5% were at or below NMS in numeracy. Supporting these students to gain foundational literacy and numeracy skills so they can appropriately engage with the school curriculum requires the effective implementation of evidence-based practices. AERO will continue to develop high-quality guidance and resources that identify evidence-based practices for the teaching of literacy and numeracy and support their implementation across primary and secondary schools.



Generating new evidence to improve outcomes

In some areas, there remains insufficient rigorous evidence to inform effective decision-making. In these cases, AERO will lead or commission the generation of new, rigorous evidence. Generating new, rigorous evidence will require strong partnerships with ECEC services, schools, communities, systems and sectors to access field sites across Australia and to ensure all participants benefit from research undertaken in their contexts. Although generating new rigorous evidence can take multiple years, AERO will update the education community regularly on the progress of these projects, because important insights are garnered throughout.

What practices support First Nations children and young people to achieve their educational aspirations?

Although all AERO's work will consider how to advance outcomes for First Nations children and young people, AERO recognises that achieving sustained improvements to the way First Nations children and young people are supported in Australian education requires targeted focus. AERO will undertake projects that strengthen the existing evidence base on the practices, programs and policies across ECEC and schools that best improve outcomes for Aboriginal and Torres Strait Islander children and young people. AERO will also undertake initiatives that catalyse and accelerate system-wide improvements based on the evidence base.

What features make professional learning most effective in ECEC and school settings?

Despite the large investment in professional learning across Australia, we're yet to fully understand how to ensure that it is as effective as possible in driving sustainable improvements in evidence-based practice. Rigorous evidence on the causal impact of professional learning on child and student learning remains lacking in the Australian context. If available, this evidence could ensure system guidance and investments are directed towards more effective professional learning. This evidence could also provide professional learning providers with concrete guidance on how to structure their offerings to be more effective.

What are the most effective and cost-efficient designs for tiered interventions to support students who have fallen behind in their learning?

So far, AERO has synthesised, translated and promoted high-quality guidance and practical resources on how to effectively implement multi-tiered systems of support to improve outcomes for students who start secondary school without foundational literacy and numeracy skills. This work has identified key evidence gaps in the most effective and cost-efficient designs for tiered interventions across both primary and secondary school contexts. AERO will partner with interested systems and sectors to fill these gaps, with the aim of sharpening guidance and practical resources to ensure more effective supports for students who have fallen behind in their learning.

What are the most effective ways to deploy education technology (including generative artificial intelligence) to reverse growing inequity in child and student learning outcomes?

Although educational technology (EdTech) offers many opportunities for improving teaching and learning, more rigorous and relevant evidence is needed for Australian children and young people to fully realise EdTech's benefits. AERO will investigate applications of EdTech that reverse growing inequity in child and student learning outcomes. This will involve investigating the impact of the 'digital divide' across Australia, and then strengthening the evidence on innovative uses of EdTech that address equity gaps by accelerating the learning progress of disadvantaged children and young people.

How can governments improve access to quality early childhood education and care in thin markets?

Despite improvements in access to quality ECEC over the past decade, there remain gaps in service delivery, especially in regional and remote locations. More evidence is needed to understand the role that different models of service delivery play in these locations. AERO will undertake a literature review of contemporary and past approaches to improving ECEC access in "thin markets" (regional/remote locations) internationally and in Australia, identifying evidence of successful approaches and factors that support effectiveness. Such insights will better inform governments when considering delivery options for regional and remote locations.





AERO acknowledges the Traditional Custodians of the lands, waterways, skies, islands and sea Country across Australia. We pay our deepest respects to First Nations cultures and Elders past and present. We endeavour to continually value and learn from First Nations knowledge and educational practices.



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