Australian Education Research Organisation submission on the Early Years Strategy

April 2023

The Australian Education Research Organisation (AERO) welcomes the Australian Government's Early Years Strategy discussion paper and the opportunity to build towards an integrated system with children at the centre. This submission highlights the importance for this Strategy to improve the use of research and evidence in policy and practice to improve outcomes for children.

AERO is Australia's independent education evidence body. Our vision is for Australia to achieve excellence and equity in educational outcomes for all children and young people through effective use of evidence.

The evidence that early experiences and quality service provision can positively influence children's life course has driven more than a decade of investment and reform in early childhood education and care (ECEC) for children aged birth to 8 and their families.

AERO's submission on the Early Years Strategy outlines the key opportunities to use emerging research and evidence to ensure this investment is improving outcomes for children in ECEC, particularly in vulnerable and disadvantaged contexts.

AERO understands that the Early Years Strategy is intended to focus on the first 5 years, including the antenatal period, and our submission focuses on integration and evidence-based approaches for supporting children during this period. We note that internationally, experts regard early childhood as the period of learning and development from birth (or the antenatal period) to age 8. Continuity of learning and development throughout this period – and connectivity of the systems and services that support it – can protect children's progress, and help to ensure no child falls through the cracks as they grow.

Integrated approach

> **Question 5:** What could the Commonwealth do to improve outcomes for children – particularly those born or raised in more vulnerable and/or disadvantaged circumstances?

AERO supports the adoption of an integrated approach to the early years that prioritises the wellbeing, education and development of Australia's children and reduces program and funding silos across government departments.

Research tells us that an integrated approach to initiatives and services in the early years may improve outcomes for vulnerable and disadvantaged children and their families. Recent initiatives for reducing vulnerability and disadvantage among priority cohorts in the early years have appeared to benefit from multifaceted, intensive and targeted approaches aimed at both children and their families (Tseng et al., 2019). Combining policy levers and 'stacking' early interventions and programs can have cumulative benefits for children (Molloy et al., 2019), while investing in linking and capacity-building can improve service integration.

Investing in the 'connective tissue' that links initiatives and services may improve system function. Examples include:

- training and supporting professionals to do warm referrals and support families to participate in services

- wraparound and targeted services attached to universal ECEC platforms

- place-based service integration, including resources and time to support services to integrate governance, policies and practices

- layering complementary efforts led by federal and state governments, providers and communities.

Successful efforts to integrate services draw on a range of perspectives, especially the people they are designed to serve. Governments should resource the involvement of First Nations people in the design, implementation and evaluation of initiatives, at both local and system levels. This can include the resourcing of professional networks and advisory bodies, and the leadership and input of professionals and community leaders with lived experience in system and program decision-making. This approach benefits all integration efforts, and is especially important in First Nations communities where cultural responsiveness is critical to initiatives' success.

Professional networks for system integration

As part of the National Children's Education and Care Workforce Strategy, AERO is investigating the role of professional networks for educators, teachers and leaders. Evidence suggests that professional networks can enhance professional identity, wellbeing and retention in the ECEC workforce, and contribute to ongoing professional development and quality improvement (Thornton & Cherrington, 2019). Professional networks can be particularly important for educators, teachers and leaders in standalone settings, in remote communities, and those who may feel professionally isolated – for example, where they are the only qualified ECEC teacher (Hogan & White, 2021). Networks that connect professionals across education and care, allied health, and related fields working with young children and their families could provide new channels for codesigning and implementing new policies and programs, and act as champions across the sector for emerging evidence-based practice. AERO is conducting an extensive review of the domestic and international evidence about supports for professional networks, and consulting with the sector to identify gaps and opportunities to generate recommendations on the appropriateness of a national approach to professional networks. This will be presented at the National Children's Education and Care Workforce Strategy Forum in December 2023.

Evidence-based approach

Question 8: Are there gaps in existing frameworks or other research or evidence that need to be considered for the development of the Strategy?

AERO supports taking an evidence-based approach to ensure initiatives guided by the Early Years Strategy draw on the best available evidence about what works to improve equity.

State of the evidence base

Historically, the Australian ECEC evidence base has relied on international evidence or process evaluations, time-limited trials (Tayler, 2018), and small-scale studies using qualitative paradigms (Garvis et al., 2021). These research methods are valuable and can be well matched to project goals, often providing rich data for understanding local context and giving voice to participants who may be historically marginalised (Garvis et al., 2021). However, they are often poorly suited to understanding whether a program successfully shifted children's outcomes.

There is a clear need to strengthen the Australian evidence base surrounding what works for advancing more equitable outcomes for children. Access to high quality ECEC is uneven, and children from priority cohorts – including First Nations children,

multilingual children and children from rural and remote areas – continue to experience developmental vulnerability at disproportionate rates, according to Australian Early Development Census (AEDC) results (Department of Education, Skills and Employment, 2022). Evidence suggests that improving outcomes for children experiencing vulnerability and disadvantage can require the support of multiple services, over an extended period (e.g., Tseng et al., 2019; Molloy et al., 2018). Yet, the long-term, multifaceted and integrated nature of initiatives that aim to advance more equitable outcomes for children can make it challenging to evaluate the effectiveness of investments through targeted research and individual program evaluations.

In recent years, government funding and collaboration have played a crucial role in building an Australian evidence base, recognising the unique features, history, strengths and challenges of the Australian early years system. This includes the establishment of AERO, and the development of national datasets on ECEC quality and child outcomes, including the:

- National Quality Standard in 2012
- Australian Early Development Census in 2009
- Multi-Agency Data Integration Project (MADIP) First Five Years dataset,[1] which comprises detailed data on children's and families' backgrounds and their participation in programs including long day care and family day care, linked with learning and development outcomes measured by the AEDC.

Researchers have used these datasets, as well as longitudinal research datasets such as E4Kids, to grow the evidence related to the ECEC practices that matter most for young children's learning, development and wellbeing (e.g., Molloy et al. 2018; Tayler, 2016; Rankin et al., 2022; Tseng et al., 2019; Holzinger & Biddle, 2015). However, more research is needed to understand what experiences matter most for children in early childhood, especially for children experiencing vulnerability and disadvantage.

AERO is working with the University of Queensland to explore the specific aspects of quality that matter most for children from priority cohorts, and how they may counter the effects of disadvantage and contribute to better outcomes. This project uses MADIP First Five Years and the E4Kids+ longitudinal dataset, and aims to improve the ways we can use existing data to provide insights for policymakers and sector leaders.

AERO commends the Australian Government's commitment to further strengthen the evidence base through investments such as the Early Learning Teaching Pilot (in partnership with the Victorian and Northern Territory governments) and the intensive early childhood education and care model trial (with the Victorian Government). AERO is poised to build on this type of work.

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[1] A partnership between the Australian Government Department of Education and the Australian Bureau of Statistics.

Improving capability for an evidence-based approach

The sophisticated and systematic use of evidence is an imperative for reform, and a foundation for evidence-based policy and service design.

Investing in rigorous and relevant evidence

The early childhood evidence base would benefit from coordinated investment methods considered rigorous and relevant. Teachers, educators, leaders and policymakers make dozens of decisions every day aimed at improving outcomes for children. AERO's *Standards of evidence* lay out AERO's view of what constitutes rigorous and relevant evidence, and provide examples for applying the standards to establish confidence in the applicability of a given approach or policy in a particular context.

When considering rigor and relevance in study design, the method should be fit for purpose. AERO encourages the greater use of study designs that can measure the impact of a given program on its intended goals. We briefly describe some examples of fitting a design to the goals of the evaluation below.

- **Randomised controlled trials (RCTs)** are a well-regarded method for studying causal relationships because randomisation eliminates selection bias, and control groups provide a comparison that does not get the same intervention. This can lead to high (or very high) confidence that the results observed are due to the approach being measured, and not due to chance. RCTs also typically feature multi-site designs, which can improve confidence that the findings were not location-specific.
- **Matched controlled trials** and **pre-test/post-test experimental designs** can generate evidence about change in child outcomes, and with careful design, can produce high confidence that the results observed are due to the approach being measured, and could be replicated in similar contexts.
- **Process evaluations** using qualitative or mixed methods can provide rich contextual information for understanding participants' experience of a program, and providing guidance for improving the program's implementation in that context, or replicating it in similar contexts.

Improving the data architecture for system monitoring and service integration

The discussion paper cites several models for framing an evidence-based approach to the Early Years Strategy, including the public health model, Bronfenbrenner's ecological systems theory, The Nest, and the OECD frameworks for measuring wellbeing. These are useful aids for conceptualising the complex early years system with the child at the centre. They can provide high-level, shared language across government departments and sectors working together, and can assist with tracking and reporting on population-level indicators over time. However, the utility of data to

drive evidence-based approaches depends on the sophistication of the underpinning data architecture.

An evidence-based approach to an Early Years Strategy requires feedback mechanisms that provide insights not only about how children's outcomes are changing over time, but also into how investments are contributing to those outcomes. Data infrastructure that links large-scale, child- and family-centred data across programs, service systems, and levels of government can provide a durable, efficient mechanism for system feedback.

Substantial data already exists about ECEC services in Australia, including access, participation and quality. These data are held by governments (state and federal), research organisations and sometimes by ECEC providers themselves. Yet they are not fully utilised to investigate what makes the most difference for children's learning and development. In our report, *Early childhood data in Australia: scoping report*, AERO laid out some of the most pressing questions that could be answered using comprehensive, nationally linked early childhood data.

Evaluation of linked data can assist with overcoming the current fragmentation of the evidence base related to government initiatives. Analysis of large-scale linked data can provide insights into the pathways children and families take through the service system, how interventions can 'stack' most successfully to improve outcomes (Molloy et al., 2019), and where the 'connective tissue' needs more support. In addition, comprehensive and holistic data systems can efficiently simulate otherwise costly evaluation approaches to ascertain the impacts of individual initiatives. These relationships can be used to infer how well a given program or investment is delivering on its intended goals and how effectively programs are working together.

With appropriate controls, a linked data system can be used for multiple purposes, including for improving coordination in service delivery (Committee for Economic Development of Australia, 2021; Pilkington et al., 2019). Data systems with appropriate guardrails that link across agencies and programs can provide better insights into predictors of risk and enhance the critical work of frontline professionals by ensuring that preventative programs are reaching the right children and families (Lynch, 2018).

Opportunities

The Early Years Strategy provides the Australian Government with the opportunity to catalyse a stronger early childhood evidence base, with the capability to provide teachers, educators, policymakers and sector leaders with crucial insights about where the system is working well, and where more support is needed to ensure every child thrives, whatever their circumstances. Specific actions suggested for consideration include:

Updating MADIP First Five Years

AERO appreciates the investment the Australian Government and the ABS have made in MADIP First Five Years – the best available, nationally linked data, and a valuable resource with potential for greater use. MADIP First Five Years linkage with the AEDC currently concludes with the 2018 collection, which limits its utility for examining the effects of more recent policy and population change. Additionally, only data held by Australian Government entities are included, limiting the insights that can be drawn about how programs led by different levels of government are working together.

AERO encourages the Australian Government to commit to ongoing work with the ABS to update the MADIP First Five Years dataset, including the 2021 AEDC collection and Child Care Subsidy System data. This would create opportunities for child-centred, longitudinal analysis of new cohorts.

Information sharing across governments and with peak bodies and providers

- Intergovernmental forums provide opportunities to share information between jurisdictions and agencies that have undertaken data sharing and linkage. This can assist in anticipating challenges and developing solutions such as estimating the time commitment and resources required, identifying potential legal barriers, and developing memoranda of understanding between the agencies involved.

- Peak bodies and providers play an important role in shaping the early childhood education and care system. They are key users of data, and some hold extensive datasets. There is an opportunity for government, peak bodies and providers to work together to share data and insights from analysis, and guide the improvement of the Australian early childhood data architecture.

Working towards a national early childhood data architecture

- AERO encourages the Australian Government – with state and territory governments, peaks and providers – to consider the development of a framework for a national data architecture that would guide the systematic collection, linkage and analysis of data related to children's participation in programs in the early years, including preschool, facilitated playgroup, or maternal and child health visits.

For further information about the opportunities for using a coherent and integrated linked data architecture to address gaps in the ECEC system, see AERO's *Early childhood data in Australia: scoping report*.

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