Evidence on optimal hours of ECEC for Aboriginal and Torres Strait Islander children

Literature review

11 October 2023

dandolopartners

Introduction

Dandolopartners has been commissioned to undertake research on the evidence on optimal hours of early childhood education and care for Aboriginal and Torres Strait Islander children.

Background

The Australian Government is pursuing significant reforms in early childhood, including for Aboriginal and Torres Strait Islander children. In the context of the recent wave of early childhood reforms at both state and Commonwealth levels, a high-quality evidence base is required to consolidate what is known, and where there are gaps, to support decision-making.

A robust evidence base is necessary to understand:

- The level of access to early childhood education and care (ECEC) that supports the best educational, developmental, and wellbeing outcomes for Aboriginal and Torres Strait Islander children and families
- The impact of quality on realising the potential of investment in ECEC
- The models of care, provider types and operational considerations that best support quality

This will support an understanding of:

- How government could invest in an entitlement to ECEC for Aboriginal and Torres Strait Islander children
- From a policy and system design perspective, the key features which need to be in place to ensure an entitlement to ECEC meets its objectives in supporting educational, developmental, and wellbeing outcomes for Aboriginal and Torres Strait Islander children and families

This report

This report provides a synthesis of the literature unpacking the evidence base for the optimal hours of ECEC for Aboriginal and Torres Strait Islander children, and the key features that drive impact.

Specifically, we've investigated the evidence for a 30-hour entitlement to early learning – or three days per week – for Aboriginal and Torres Strait Islander children. This entitlement mirrors the entitlement to early learning offered in other countries.

This report unpacks:

- The context, background and methodology for this review
- The evidence supporting optimal hours for Aboriginal and Torres Strait Islander children, all children in Australia, and children internationally
- Key features of effective early learning programs
- Three case studies showcasing the evidence base on the number of hours, duration and service models that support outcomes for children

A note on referencing

Numbered footnotes in this report correspond to our annotated bibliography (see separate document). Additional supporting materials for this report are referenced with letters – and included in the appendices.

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Acknowledgements

We respectfully acknowledge and celebrate the many Traditional Owners of the lands throughout Australia and pay our respects to ancestors of this country and Elders past and present.

We recognise that Aboriginal and Torres Strait Islander communities, culture and lore have existed within Australia continuously for 65,000 years.

Aboriginal and Torres Strait Islander peoples have been raising children on these lands for millennia, leading the way through practices such as storytelling, lifelong learning, and collective education with multiple care givers – practices which are uniquely supportive of best-practice in child development, and well suited to high-quality early childhood education and care settings.

We acknowledge the ongoing leadership of Aboriginal and Torres Strait Islander communities across Australia and those who continue to work tirelessly to lead the way in early childhood pedagogical approaches, address inequalities and improve Aboriginal and Torres Strait Islander educational and developmental outcomes for children, families and communities.

dandolopartners is grateful for the support of Dr Jessa Rogers (Wiradjuri), whose insights, direction and guidance have helped shape the research process and findings of this report.

A note on language

We have chosen to use inclusive and strength-based language in this report.

Term	Definition
Entitlement	Entitlement refers to a right to early learning at the optimal number of hours which would best support children's learning and development outcomes. The ECEC literature commonly refers to entitlement as 'dose' or 'dosage'. As Western medical language may be triggering for some Aboriginal and Torres Strait Islander people, we have chosen not to use it in this report unless directly quoting from the literature.
Aboriginal and Torres Strait Islander	In an Australian context we respectfully refer to Aboriginal and Torres Strait Islander peoples. Where referring to Indigenous peoples in other countries, we have used the term 'First Nations' or the term used within the sources cited.
Early Learning	For the purpose of this report, early learning can be understood as early childhood education and care settings, childcare, long day care, preschool and kindergarten.
Year before school	When we refer to the year or sometimes two years before school, we are referring to early learning services such as preschool, kindergarten and pre-preparatory school.
Duration	Duration is specifically used to reference the number of years spent in early learning, rather than hours per day / week.

Executive summary

The evidence for a First Nations entitlement to early learning

High-quality, culturally safe early learning aligns with Aboriginal and Torres Strait Islander ways of knowing, being and doing.

Aboriginal cultural ways of child rearing[3], including practices such as storytelling, lifelong learning, and collective education with multiple care givers, are uniquely supportive of best-practice in child development, and well suited to high-quality ECEC settings. Aboriginal and Torres Strait Islander families are diverse in their child rearing practices, and there is no one way in which families raise their children. However, research highlights key themes recognising the uniqueness and value of Aboriginal and Torres Strait Islander child rearing customs – which are reflected in the research base as promoting responsive, reciprocal relationships.

Children have a special place within Aboriginal and Torres Strait Islander families and communities, where relationships are fundamental, children are perceived as strong and capable, and that a child's social and emotional learning through interaction is a priority.

Building relationships is fundamental to Aboriginal and Torres Strait Islander ways of engaging with children. Ashton, Hawting and Harrison (2011) emphasise "the aim of parenting for Aboriginal and Torres Strait Islander people is to let the child know who they are in relationship to their family, their kin, their people, their environment and the living spirits of their ancestors and land"[A].

Strengths-based approaches are also central to Aboriginal and Torres Strait Islander perceptions of children, as strong and capable individuals [A]. This aligns with ECEC pedagogies of actively engaging children in their learning by leveraging their strengths and designing learning environments and teaching strategies around these strengths.

Children's social and emotional skills are viewed as a priority with the aim of supporting a strong sense of wellbeing and belonging for all children. Aboriginal and Torres Strait Islander families nurture children to be socially considerate, aware of others' needs, and respectful of Elders in community[A]. Child development research supports this approach, demonstrating the importance of learning in social contexts, and the integral role of social and emotional skills in supporting children to start school well.

[A] Ashton, Hawting and Harrison, 2011
[B] Australian Government Department of Education, 2022

Overall, the evidence generally points in the same direction – showing positive outcomes for children's self-regulation, language and cognition, and wellbeing.

The benefits of ECEC are well-established internationally. Many countries have had universal entitlements of 30 hours per week of free or low-cost early learning for families for decades, including the United Kingdom (UK), Canada, and most of the European Union in both preschool and for children younger than three.

Impacts on learning and development: The evidence shows high-quality early learning supports children's:

- Self-regulation skills, which allows them to plan, focus attention, remember instructions, and juggle multiple tasks successfully
- Language, literacy and cognitive skills, creating the foundations for increasingly complex cognitive reasoning, forming connections with others, and communicating
- Wellbeing, belonging and positive sense of identity, which supports children to feel happy, secure and connected to the people around them.

Years of attendance: The research base for children aged three to five years is substantial, showing consistent positive outcomes for children, including for First Nations children in Australia and across the world. Starting early learning at age three strengthens children's language, cognitive, and social-emotional skills, ensuring that children start school with the capabilities they need to engage, participate and make connections with their peers – with impacts in both the short and long term.

There is less research on the impact of early learning for children 0-3 years of age, but overall the research points to a positive impact for children experiencing disadvantage. The evidence for this age group also highlights the importance of quality – indicating that low-quality environments may cause harm to very young children by negatively impacting their learning and development

Hours of attendance: Research from longitudinal studies has been able to demonstrate that children accessing more hours of high-quality early learning have enhanced developmental outcomes across several developmental domains, although the research is mixed regarding precise thresholds. The research base drawing from studies of full day compared to half day early learning in Ontario, Canada is particularly strong regarding insights on the impact of increased hours of attendance. While the research base on optimal hours is still maturing, a 30-hour entitlement as a policy solution would enable a higher level of participation in early learning, supporting greater opportunities for impacting children's learning and development.

Key features of effective programs

Quantity, quality and cultural safety are critical to achieving positive outcomes for children and families through early learning.

Quantity

The evidence suggests that access to a sufficient number of hours of early learning is necessary to realise positive learning and developmental outcomes.

Precise thresholds of the optimal hours of early learning are very difficult to measure, and the evidence base is still maturing, but overall the evidence shows that children accessing more hours of early learning (above 15 hours) demonstrate enhanced outcomes across a range of developmental domains. This is the case for Aboriginal and Torres Strait Islander children, children in Australia, and children internationally – with evidence supporting both increased duration (number of years spent in early learning) as well as increased hours in early learning.

Aboriginal and Torres Strait Islander families need flexibility in how they access early learning to break down existing barriers. The research also highlights that Aboriginal and Torres Strait Islander attendance patterns can be, by necessity, varied and changeable over time and therefore it is not culturally appropriate to require set attendance patterns in early learning from Aboriginal and Torres Strait Islander children and families.

Quality

Evidence is unequivocal that early learning needs to be high-quality to deliver substantial and sustained benefits to children.

Studies with the strongest effect sizes are those in which high-quality programs have been implemented – such as evidence from Abecedarian programs both internationally and in Australia. There is also a growing body of evidence highlighting specific features of high-quality programs which emphasise the importance of reciprocal, sustained interactions between adults and children.

Low-quality programs show little to no effects and can be detrimental to children's learning and developmental outcomes – particularly in relation to increased challenging behaviour.

However, evidence from an Australian context shows inequity in quality provision. Family socio-economic status (SES) is an indicator of the quality of early learning program that children experience. This is particularly concerning as the evidence base suggests that high-quality ECEC is the most impactful for children experiencing disadvantage. This means that the children who are most likely to benefit are less likely to be access high-quality ECEC programs.

Cultural safety

The evidence consistently demonstrates the importance of cultural safety in supporting Aboriginal and Torres Strait Islander children's learning and development. This includes programs which incorporate cultural activities that build knowledge, cultural pride, and a strong sense of identity. Culturally safe programs also respond to the unique needs of communities by breaking down barriers to access through locally driven solutions, and offering integrated, wrap-around services.

A systematic review of the international literature base for the impact of early childhood education programs on First Nations children found the most successful ECEC programs are more likely to be led by or designed in collaboration with local communities.[40] As well as demonstrating a deep respect for and engagement with Aboriginal and Torres Strait Islander communities, such approaches may facilitate programs which are responsive to the specific needs and contexts of each community and their children.[17] This model of tailored early learning is representative of the evidence base on the features of high-quality for children and families.[42]

Our review

This report provides a synthesis of the literature unpacking the evidence base for the optimal hours of ECEC for Aboriginal and Torres Strait Islander children, and the key features of program design and delivery that drive impact.

We reviewed the literature unpacking the impact of the number of hours on children's educational, developmental and wellbeing outcomes for…

Aboriginal and Torres Strait Islander children

Children in Australia

Children internationally

…and unpacked the key features highlighted in the literature as critical to driving impact.

Quality

Service models

Models of provision

Key insights on a page

There is clear and consistent evidence that high-quality, culturally safe early learning lifts child outcomes.

The evidence base for...	Key features of effective ECEC programs	Associated outcomes
Aboriginal and Torres Strait Islander children 	Trust is a key factor that influences the experience of Aboriginal and Torres Straight Islander families using ECEC services in Australia. Trust was facilitated through: • Empowering **culture and community** • Supporting **growth and development** • Taking active steps to **removing practical barriers** – such as cost and transport	Aboriginal and Torres Strait Islander children benefit in several learning domains for attending high quality ECEC services. ECEC programs that target Aboriginal and Torres Strait Islander children's learning, development or wellbeing have the opportunity to improve children's language outcomes as well as their development and school readiness. The most successful ECEC programs are likely to be led by or designed in collaboration with local communities.
Children in Australia	• Models of wrap around care, flexible offerings and 'stackable' services were found to improve outcomes for children and families in Australia • Evidence demonstrates that benefits of ECEC are maximised when there were a mix of socio-economic groups attending ECEC services • High-quality ECEC was identified across the literature as a key determiner of improved outcomes for all children	Research in an Australian context points to higher hours in high-quality ECEC settings as beneficial for child outcomes. There is emerging evidence from targeted programs for children experiencing disadvantage for an entitlement to 25 hours per week in enhancing children's learning and developmental outcomes (see Case Study 2). Two years in ECEC settings has been shown to improve Australian children's cognitive development in a range of domains, including English verbal skills, literacy and reading, IQ, resilience and socio-emotional development. By increasing time spent in ECEC settings, children have more time to engage in enriching activities, play based learning and experiences that promote language development, problem-solving abilities, and social interaction.
Children internationally	• High-quality programs, which demonstrate both process and structural quality factors support children's learning and development – process quality factors with the strongest evidence include group size and teacher-child ratios • Service models that provide wrap-around, holistic models of care are effective drivers of child outcomes – focusing on families as well as children • Providers such as ACCOs, and non-Indigenous providers who prioritise culturally safe ECEC are effective in supporting engagement and connection with families	There is strong support throughout the international research base for two years of early learning, with emerging research showing that access to increased hours of early learning can enhance child outcomes, particularly for children experiencing disadvantage. For example, longitudinal studies of an entitlement to full day kindergarten (~30 hours per week) in Ontario, Canada, demonstrate enhanced literacy, numeracy and self-regulation outcomes for children. The Ontario kindergarten studies demonstrate the impact of a universal entitlement to high-quality, play-based learning (see Case Study 3 for further details). The strongest evidence shows impacts on children's self-regulation, language, literacy and cognitive development, as well as wellbeing, belonging and sense of identity.

Background and context

Background and context

ECEC supports all children to thrive, sets them up for lifelong learning and can address social inequities. But many families miss out as a result of significant barriers to access and the full benefits are not being realized.

Why ECEC?

The early years are widely recognised as a critical period in a child's development, creating the foundations for lifelong learning and wellbeing across multiple domains.[A] Early childhood development programs, such as ECEC, maternal child health (MCH), and early intervention support children to flourish within the context of the families and communities they grow up in – and promote equitable opportunities to learn, meaningfully participate, and develop.[B]

Participation in high-quality, culturally safe ECEC programs can significantly enhance a child's developmental outcomes. ECEC has a lasting impact on a child's trajectory from school, tertiary education and into employment, and benefits their health and wellbeing throughout the life course. This is vital not only in supporting children to flourish, but because investing in the early years is more effective, and less costly, than interventions later in life.[A]

The benefits of ECEC are well-established internationally. Many countries have had universal entitlements of 30 hours per week of free or low-cost early learning for families for decades, including the United Kingdom (UK), Canada, and most of the European Union.

They are also increasingly recognised in Australia, reflected in a significant wave of policy reform and increased investment focused on widening access and improving the quality and impact of programs. In Australia, several jurisdictions have already made commitments to offering universal preschool for three-year-old children, in addition to preschool programs for children in the year before school.

Despite recent national reforms, families from across Australia struggle to afford and access ECEC that meets their needs, and not all programs are delivering the level of quality needed to fully realise the benefits of ECEC.[C] Families experience the ECEC system as confusing, fragmented and disjointed, and often as culturally unsafe, creating considerable barriers to access.

Early learning for Aboriginal and Torres Strait Islander children in Australia

Aboriginal cultural ways of child rearing, including practices such as storytelling, lifelong learning, and collective education with multiple care givers, are uniquely supportive of best-practice in child development, and well suited to high-quality ECEC settings.

Aboriginal Community Controlled Organisations (ACCOs) delivering early childhood programs are recognised as strengthening Aboriginal and Torres Strait Islander children's school readiness and have been shown as a preferred model of care for First Nations families and communities. ACCO integrated early childhood hubs:

- Support the holistic needs of families
- Provide high-quality, culturally safe early childhood programs
- Create safe spaces for community connection
- Offer universal and flexible programs that are responsive to the communities they serve

Successive policy failures mean Aboriginal and Torres Strait Islander children experience disproportionate disadvantage in development and education outcomes in the early years. The Australian Early Development Census E (AEDC) shows that one in three Aboriginal and Torres Strait Islander children are developmentally vulnerable in one or more domains compared to one in five children overall.

Priority 2 of the National Agreement on Closing the Gap focusses on strengthening the community-controlled sector, aspiring to break down the barriers to accessing early learning, fully realise the potential benefits of ECEC, and reduce disadvantage in Aboriginal and Torres Strait Islander communities.

[A] Campbell et al., 2014
[B] Cebolla-Boado et al., 2016
[C] Noble and Hurley, 2021
[D] Ashton, Hawting & Harrison, 2011
[E] AEDC, 2021

Barriers to accessing early learning

Evidence shows that for Aboriginal and Torres Strait Islander families, barriers to accessing early learning are exacerbated by existing inequities – denying children critical opportunities for learning and development.

Accessibility

Aboriginal and Torres Strait Islander communities have higher caring responsibilities due to a younger population and cultural practices of caring for Elders in intergenerational home environments. Despite this, Aboriginal and Torres Strait Islander people have less access to ECEC than non-Aboriginal and Torres Strait Islander people overall – creating considerable challenges for Aboriginal and Torres Strait Islander families navigating work and care responsibilities.[A]

The current ECEC funding system creates several administrative and policy barriers that prevent Aboriginal and Torres Strait Islander families in accessing ECEC*, including:

- **The activity test**, which restricts the number of hours of Child Care Subsidy (CCS) a family is entitled to based on the 'recognised activity' in which parents are engaged.[B]It is estimated that 126,000 children across Australia miss out on ECEC as a result of the activity test, the majority of whom experience some form of disadvantage [B]
- **Administrative barriers** for families in accessing the Child Care Subsidy, engage with Centrelink, and navigate the complexity of the system
- **Stigma and fear** associated with the Additional Child Care Subsidy (ACCS), requiring a child to be "vulnerable or considered to be at risk of harm, abuse or neglect". The deficit framing of this definition discourages families from accessing support
- **The perceived system orientation, objectives and priorities,** which promotes a perception and reality of services being primarily or only available for working families and discourages the participation of the most vulnerable children and families.

Changes to the activity test, and reforms to CCS to decrease the costs of early learning came into place in July 2023. While these reforms were welcomed by the sector, the changes did not completely remove the barriers described above – with peak bodies, providers and families calling for a complete removal of the activity test.

Inclusion

Early childhood programs in Aboriginal and Torres Strait Islander communities need to recognise the importance of family, community, partnership, and collaboration in Aboriginal and Torres Strait Islander Culture, and reflect this in program delivery. Currently, funding models: [C]

- Jeopardise the integrated and holistic services that ACCOs provide through their narrow focus on ECEC – without flexibility to provide broader supports and services
- Risk excluding families by putting ACCOs in the position of having to charge increased fees to support the holistic programs provided
- Constrain the staffing required to adequately support programs
- Are prescriptive and inflexible – compromising support for programs that meet the needs of communities

Current funding models constrain delivery in areas of undersupply for ECEC, including regional, remote and some metropolitan areas.[A] Funding models do not:

- Adequately reflect ACCO's holistic and integrated approach to program delivery – which is often aimed at meeting a wider variety of needs [C]
- Reflect the real cost of delivery – such as additional staffing costs or housing for staff in areas experiencing critical workforce challenges
- Support tailored programs to meet community needs and aspirations

[A] Senate Select Committee on Work and Care, 2022
[B] Impact Economics and Policy, 2022
[C] Brennan, 2013
[D] ACCC, 2023; ACCC Childcare Inquiry Roundtable Summary (virtual roundtable – Friday 25 August 2023); ACCC Childcare Inquiry Roundtable Summary (face to face roundtable – Friday 8 September 2023);
* Further details of the administrative and policy barriers can be found in the Deloitte Access Economics ACCO Funding model paper.

Why a 30-hour entitlement?

An entitlement to early learning may address existing barriers, enabling Aboriginal and Torres Strait Islander families to thrive by addressing the systemic conditions that contribute to widening the Gap.

Key challenges

Aboriginal and Torres Strait Islander children have less access to and lower rates of participation in ECEC due to systemic conditions that have created significant barriers to access.

Key drivers of lower rates of participation include that:

- Services aren't always experienced as culturally safe, valuing of Aboriginal and Torres Strait Islander ways of being and knowing, and equipped to provide the holistic support families need in the early years.
- Child and family circumstances and needs vary – between families and over time – but the current system isn't easily able to adapt to child and family needs.
- Families find the current system hard to understand and navigate – eligibility is complex, there is stigma involved in accessing additional funding, cost estimation depends on individual household circumstances and is hard to estimate, and determining what services are available places significant burden on families.
- Access to ECEC isn't based on what's best for children – it's based on parent work and activity levels, which does not send a clear signal that its important for all children.
- Cost remains a significant barrier to access.

Why an entitlement to 30 hours?

An entitlement to three days a week of early learning for Aboriginal and Torres Strait Islander children – up to 30 hours – would ease cost pressure on families, reduce confusion about how the system works and contribute to enhancing child outcomes in Australia.

- **Tailored to individual child and family needs**: There is no universal "optimal" amount of early learning, as every child and every family is unique, and diverse community contexts means that there is no one-size-fits solution. A core entitlement to a sufficient number of hours means there's flexibility to tailor access to individual child and family circumstance.
- **Reduction in stress**: Access to regular, predictable hours of subsidised or free early learning would reduce the amount of financial and administrative stress for families, and therefore the stress that children experience early in life. Minimising stress and enhancing protective factors, such as supports provided through early learning, have a significant impact on children's learning and development.
- **Reduced stigma**: An entitlement removes the stigma and fear associated with means tested approaches to funding – which presents a significant barrier to Aboriginal and Torres Strait Islander families who experience intergenerational trauma from engaging with government agencies.
- **Enhanced child development and wellbeing**: Evidence supports at least 15 hours of high-quality ECEC — but children experiencing disadvantage benefit from more access and regular, consistent participation and an entitlement to 30 hours would increase participation.
- **Enhanced family wellbeing and financial security**: Supporting access to early learning through an entitlement would likely lift participation in the workforce from parents, supporting families to feel empowered financially.

An entitlement to 30 hours – or three days per week – also mirrors the entitlement to early learning offered in other countries.

The precedent

A 30-hour entitlement or heavily subsidised ECEC is already standard practice in several other countries – but Australia lags behind.

An entitlement of three days of ECEC a week is consistent with international norms.

Examples of this in other countries include:

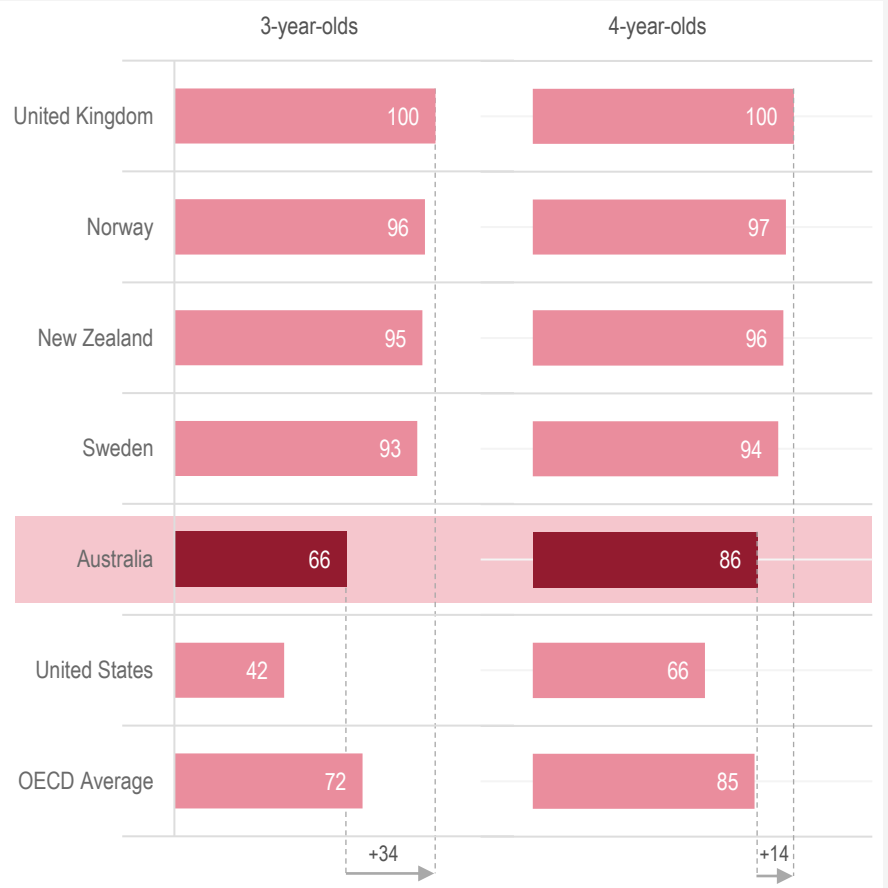
- 30 hours a week offered to working families in the UK.[B]
- In Berlin, ECEC is free, with a nominal contribution families make per month which is capped at 60 Euros.[C]
- In Sweden and Norway, ECEC is publicly subsidised from one year of age and therefore very affordable.[D]
- Belgium, Denmark, Lithuania and Slovenia provide free access to early learning for children under three.[D]

Early learning in Australia is relatively less affordable for households than in most other OECD countries.[E]

- A couple on an average income with two children (aged 2 and 3) enrolled full-time in centre-based care spends 16 per cent of net household income on early learning costs. This is well above average for OECD countries, at 9 per cent.
- Australia ranks 26th out of 32 countries in relation to early learning as a percentage of household income.
- Fees in Australia are also increasing at a higher rate in comparison to countries in the OECD, at a rate of 20.6 per cent between 2018 to 2022, compared to an average of 9.5 per cent.

These figures have since been disputed in a recent analysis published by the Australian National University – which uses Australian Bureau of Statistics data to model detailed early learning costs. These findings show that out-of-pocket costs are relatively contained, and not quite as substantial as the OECD data used by the ACCC review. Despite this data, peak bodies for the ECEC sector and families continue to advocate for measures to ease cost pressures on families.

Higher costs and reduced entitlement contributes to significantly lower levels of ECEC participation in Australia



Participation rate in any formal ECEC, per cent [A]

[A] McKinsey Global Institute, 2018
[B] The Parenthood, 2021
[C] Centre for Policy Development, 2021
[D] Gromada & Richardson, 2021
[E] ACCC, 2023
[F] Phillips, B, 2023

Evidence review

Our review

This report provides a synthesis of the literature unpacking the evidence base for the optimal hours of ECEC for Aboriginal and Torres Strait Islander children, and the key features that drive impact.

We reviewed the literature unpacking the impact of the number of hours on children's educational, developmental and wellbeing outcomes for…

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Children in Australia

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…and unpacked the key features highlighted in the literature as critical to driving impact.

Quality

Service models

Models of provision

Methodology

We have synthesised the literature across multiple sources to create a robust understanding of the evidence for a 30-hour entitlement.

We reviewed the literature to develop an evidence base of a 30-hour entitlement for children in ECEC.

1. **Literature scan**

We identified key literature and evidence by:

- Scanning research repositories and websites of key Australian and international organisations and think tanks
- Scanning databases for relevant articles using key search terms
- Seeking Aboriginal and Torres Strait Islander co-authored or authored papers wherever possible

2. **Targeted search**

We undertook a targeted search of the literature, guided by insights from Dr Jessa Rogers, an Aboriginal academic, and the staff members at SNAICC – National Voice for our Children to round out the evidence base

3. **Synthesising the evidence**

We synthesised the literature gathered in the annotated bibliography (attached) for this report, grouping it under key themes to represent the overarching narrative of the evidence base

Criteria	In scope	Out of scope
Sources	✓ Peer reviewed articles and 'grey' literature published in the period 2000-2023	✕ Sources published prior to 2000
Population	✓ Studies focused on ECEC entitlement and community-based services / programs ✓ Priority given to studies focusing on First Nations populations	✕ Studies focused on primary or secondary school entitlement
Setting	✓ Community-based settings Priority given to studies conducted in settings similar to that of Australia - e.g. Canada, NZ, USA	✕ Hospital, business and other non-community-based settings
Other	✓ Priority given to systematic and scoping reviews. Grey literature can be included	

Evidence gaps

The evidence base for ECEC has evolved in an ad-hoc way over time and therefore the scope and quality of the evidence base doesn't always provide the specificity or precision sought by policy-makers.

While the evidence points consistently in the same direction and there's good levels of consensus among researchers about some of the key foundations, there are some gaps and limitations. Of particular note are:

Volume and focus of research

There has been much more research on impact of ECEC programs for 3-5 year olds than their has for 0-3 year olds. There's also a fairly limited Australian evidence-base.

This means we know a lot more about programs for preschoolers than infants and toddlers, and that the evidence base for preschool is more compelling than for younger children – even though this is largely a product of the volume of research. It also means that much of the available research comes from other countries and contexts.

Outcome measures

While there's general consensus about several domains impacted by quality ECEC, across the evidence-base, different outcomes have been measured, using a raft of different measurement tools.

This means we're not capturing the full range of outcomes and impacts from ECEC, and that the impacts we do see in the evidence-base are not always easy to aggregate and provide cut-through data on the size and scale of the benefits.

Precision

While there's confidence and consensus about the overarching impacts of ECEC, the diverse existing evidence-base hasn't always measured explicitly all the factors needed to provide precision about the drivers of impact or the minimum thresholds needed to achieve impact, or the specifics of what works for whom in what circumstances.

This means that the evidence-base provides guidance on what is optimum for most children, but does not yet speak to specific numbers of hours of attendance required or to the diverse needs of different children.

Aligned evidence-bases

The research on ECEC draws from both specific research on early education and the wider and rapidly growing evidence about child development and the factors that foster positive developmental trajectories for young children.

This means that for some key design features for effective ECEC programs there isn't a specific evidence-base for particular practices or ways of working, but there is a very strong underpinning alignment with what is known about child development and from the neuroscience which then influences pedagogy and practice.

The evidence base for a 30-hour entitlement that is grounded in an Aboriginal and Torres Strait Islander and Australian perspective is still maturing. We found two key drawbacks to the available literature: a lack of Aboriginal and Torres Strait Islander research and a small-medium body of Australian focused literature. We recognise the importance of prioritising literature and evidence authored by Aboriginal and Torres Strait Islander researchers, organisations and communities so that we can minimise further entrenchment of Western ways of producing knowledge and measuring impact in contexts where it is not relevant, nor appropriate. With this in mind, our report draws on the international community of First Nations authors, specifically in Canadian and Aotearoa New Zealand contexts as well as a robust evidence in Europe and America to round out our conclusions.

Structure of this evidence review

This paper provides an overview of the evidence on levels of access to early learning that supports the best educational, developmental, and wellbeing outcomes for children.

Evidence in focus	Overview	Pages
Aboriginal and Torres Strait Islander children	• The evidence for the benefit Aboriginal and Torres Strait Islander children receive from high quality ECEC • What we know about optimal hours for Aboriginal and Torres Strait Islander children • The importance of culturally inclusive and responsive services	*19 – 22*
Children in Australia	• The Australian evidence base for the impact of ECEC and what we know about optimal hours from Australian studies • Key program design and delivery features needed for impact	*23 – 25*
Children internationally	• The international evidence on the outcomes and impacts of ECEC • The evidence on the number of years of access that lead to positive outcomes for children. • The evidence for the optimal hours.	*26 – 32*
Key features of effective programs	• Synthesis of the evidence for quality, service model and provider type	*33 – 38*
Case studies	• Three key studies demonstrating the impact of high-quality ECEC through models offering additional hours of care	*39 – 43*

Impact of early learning for Aboriginal and Torres Strait Islander children and families

This section discusses…

1. The ways in which Aboriginal and Torres Strait Islander children benefit from ECEC, and the current barriers getting in the way for children and families… *Page 20*

2. …what we know about optimal hours for Aboriginal and Torres Strait Islander children … *Page 21*

3. …and the key features necessary for early learning to be accessible and effective for Aboriginal and Torres Strait Islander children and their families. *Page 22*

Benefits and barriers

Aboriginal and Torres Strait Islander children benefit from increased hours of high quality ECEC – which supports language, development and school readiness. However, they experience persistent and systemic barriers to access.

Aboriginal and Torres Strait Islander children benefit from high quality ECEC services…

The evidence shows that Aboriginal and Torres Strait Islander children benefit in several learning domains when attending increased hours in high quality early learning.[20]

Early learning programs that are focused on supporting Aboriginal and Torres Strait Islander children's learning, development or wellbeing have the opportunity to improve children's language outcomes as well as their development and school readiness.[40]

The Longitudinal Study of Indigenous Children (LSIC) provides a robust evidence base tracking the impact of early learning on Aboriginal and Torres Strait Islander children's cognitive and developmental outcomes in the short and long term.[20] The LSIC study drew from two cohorts of Aboriginal and Torres Strait Islander children across 11 areas in Australia, examining outcomes at 2 years after preschool, and again at 3-5 years after preschool a range of cognitive and noncognitive outcomes measures. The study found large, positive and statistically significant effects of preschool on vocabulary in the short term and increased developmental and cognitive outcomes overall in the long term.

The findings strongly support Aboriginal and Torres Strait Islander children's participation in ECEC programs, demonstrating impact in across multiple developmental domains.

… but systemic failures have created barriers to accessing and engaging in early learning for Aboriginal and Torres Strait Islander families

These barriers include:[18]

- **Judgement and misunderstanding** of cultural practices
- **Misguided and offensive behaviour** from non-Indigenous staff at ECEC services
- **Racism** from staff and other families at ECEC services
- **Fear** of ECEC services undermining Aboriginal and Torres Straight Islander culture and of families having their children taken from them
- **Lack of respect for Aboriginal ways of knowing**
- **Lack of respect for kinship networks** and the important roles that community and older children may play for children using an ECEC service
- **Lack of understanding of Aboriginal childhood experiences** and the expectations that are associated with this, e.g., collectivist versus individualist behavioural practices
- **Lack of prioritising Aboriginal leadership and involvement**

The current gaps in First Nations children's development stem from historical policy failures which have resulted in significant barriers to access, and a lack of culturally safe, inclusive ECEC services which meet the needs of First Nations children and families. Currently, two in five Aboriginal and Torres Strait Islander children in Australia start school developmentally vulnerable on one or more domains of learning,[A] higher than the rate of developmental vulnerability for children overall.

Supporting access to high-quality, culturally safe early learning is therefore critical to meeting the National Agreement on Closing the Gap outcomes, and bolstering opportunities for children to start well.

Trust and engagement

Trust is required to foster positive engagement with services and support child outcomes.

Aboriginal and Torres Strait Islander families are clear about what's required for trust and the factors that enable their engagement and participation.

ECEC services that are of high-quality and work to build trust with the children, families and communities they serve are more likely to facilitate participation and create positive associations and impact for child development. This is evidenced by a study conducted in NSW that sought to understand the experiences of Aboriginal and Torres Straight Islander families engaging with ECEC services.[18] It was particularly focused on the facilitators and barriers experienced by these families in NSW. The research involved interviews with 15 parents and 10 children within the 3-5 age range to understand their perspectives.

While this research identified specific barriers and enablers that Aboriginal and Torres Strait Islander families might experience when engaging in early learning, it is important to recognise that no two families or communities are the same. What is valued and needed in an ECEC service will vary depending on the needs and life experiences of the people using the service.

Facilitating factors for engagement and improving outcomes:

- **Trust** was the key theme that emerged from all interviews with families as a core condition that needed to be met in order for participation and authentic engagement with services. The way that **trust** was felt by families varied and was often easier to establish when centres employed Aboriginal and / or Torres Strait Islander educators and engaged in a culturally inclusive curriculum.
- ECEC services' support of **culture and community** was raised as a key facilitating factor for families. This might be visible in the curriculum and support offered at the service itself, or supporting children and families to take time away from ECEC to connect with culture and community.
- **The early childhood setting** as a space of learning, friendships, and connection to educators was valued by some families as a place of growth and academic development.
- **Practical issues like** transport, food, flexible hours of ECEC available and low cost were found to be factors that influenced families' positive perception and experience of attending ECEC services.

ECEC services need to be inclusive and celebrating of Aboriginal and Torres Strait Islander culture.

The most successful ECEC programs are likely to be led by or designed in collaboration with local communities.[40] As well as demonstrating a deep respect for and engagement with Aboriginal and Torres Strait Islander communities, such approaches may facilitate programs which are responsive to the specific needs and contexts of each community and their children.[17] This model of tailored early learning is representative of the evidence base on the features of high-quality for children and families.[42]

When families and communities feel invited and appreciated in early learning it builds a sense of trust that has been found to be a key facilitator in building value for both children and families.[18]

Bowes and Grace categorise the elements of good practice in working with Aboriginal and Torres Strait Islander communities:[46]

- **Safe people –** the importance local community leadership and affirmation from Elders
- **Safe places –** welcoming spaces which promote a sense of belonging, ownership and control for local people
- **Safe programs –** strengths-based and culturally meaningful approaches, responsive to communities and developed in collaboration

Aboriginal and Torres Strait Islander children benefit from passionate and committed staff who are highly-skilled in early years' pedagogies, engagement with families and wrap around services that provide holistic care.[39]

What works

Services need to be reflective of the families and communities they serve…

Research shows that Aboriginal community-controlled ECEC services are reflective of, and adaptive to, Aboriginal and Torres Strait Islander communities. This allows the ECEC services to build trust which in turn supports engagement and facilitates Aboriginal and Torres Strait Islander children to receive the full benefits on offer.

Arrwekele Akaltye-Irretyeke Ampere Centre

One study evaluated the Arrwekele Akaltye-Irretyeke Ampere Centre for Aboriginal children in Alice Springs. The program was overwhelmingly valued by educators, parents, carers and the community because of its flexible support and continuous improvement over time. The program created a sense of trust for families and community that led to increased use of the service over time. The design of the Centre also meant that the quality and continuity of educators continued to build to a high standard over time to provide greater outcomes for the children it served.[39]

There's also evidence that when Aboriginal ways of learning are embedded in the way programs are designed and delivered, engagement and impact are enhanced.

An Abecedarian Approach with Aboriginal Families and their young Children in Australia: Playgroup participation and developmental outcomes

The Abecedarian approach to teaching and scaffolding children's language is an international evidence-based program that was adapted for Aboriginal and Torres Strait Islander children – and included language, imagery, stories and concepts that reflected community ways of being and knowing. Families reported that the program was culturally responsive, and children's language learning was enhanced.[19]

… and demonstrate high quality, best practice offerings for Aboriginal and Torres Strait Islander children and families.

Optimal hours

There is no evidence demonstrating a one-size-fits all 'optimum' amount of early learning for all Aboriginal and Torres Strait Islander children as every child, family, and community is different.[50]

The research also highlights that Aboriginal and Torres Strait Islander attendance patterns are, by necessity, varied and changeable over time.[39] This can make it impractical to track attendance consistently and while it should be an entitlement that children can access high quality ECEC services, it is not culturally appropriate to require set attendance patterns from Aboriginal and Torres Strait Islander children and families.[39]

What drives impact for Aboriginal and Torres Strait Islander children?

- Self determination that allows ECEC services to be directed and responsive to the needs of their communities.
- Cultural safety that enables Aboriginal and Torres Strait Islander families to flourish in ECEC settings that are supportive and celebrating of ways of knowing, doing and being.
- Services need to build trust with the families and communities they serve in order to maximise attendance, create 'buy in' and generate a sense of security and safety.
- Tailored, relationship based ECEC is essential for supporting the diverse Aboriginal and Torres Strait Islander families and communities.
- Place-based and community centered approaches to ECEC services that look to respond to local aspirations and challenges with local solutions.

Impact of early learning for Australian children

This section discusses…

1. The Australian evidence base* for the impact of ECEC … *Page 24*

2. …what we know about optimal hours from Australian studies … *Page 25*

3. …and the key program design and delivery features that contribute to positive learning and development outcomes … *Page 25*

*Many of the studies from an Australian evidence base include Aboriginal and Torres Strait Islander children, but there are inconsistencies in how this is reported across the evidence base, and whether the data has been disaggregated to identify outcomes for specific cohorts. Where available, we report on these outcomes separately.

Benefits of early learning

Australian evidence confirms well-designed, holistic programs support outcomes for children, particularly where children are experiencing disadvantage.

There is Australian evidence that children benefit from high-quality early learning but it's stronger for preschoolers than it is for infants and toddlers.

There is an evidence base that demonstrates two or more years of ECEC has positive effects on child development and outcomes, with one review suggesting that starting preschool at age 3 and attending for two years appears to have the greatest impact on child outcomes.[44]

Two years in ECEC settings has been shown to improve Australian children's cognitive development in a range of domains, including English verbal skills, literacy and reading, IQ, resilience and socio-emotional development.[4; 20; A] By increasing time spent in ECEC settings, children have more time to engage in enriching activities, play-based learning and experiences that promote language development, problem-solving abilities, and social interaction.

High-quality ECEC was identified across the literature as a key determiner of improved outcomes for all children. Whereas poor quality ECEC was found, in cases, to result in negative outcomes such as deficits in language and cognitive function for young children.[7]

High-quality ECEC services benefit children experiencing the most disadvantage in Australia.

The evidence is clear that children experiencing disadvantage benefit significantly from ECEC. [44; 38; B]

One study found that while attendance at high-quality ECEC in the first three years of life had limited impact on cognitive and language development for children who are not disadvantaged, it did result in improved outcomes for children from disadvantaged backgrounds.[7]

The EYEP study – in which children experiencing significant vulnerability received a high-intensity, high quality program – enabled children to catch up to their peers in key cognitive and social and emotional domains.[4]

Longitudinal studies found that high quality ECEC programs were successful in reducing the effects of social disadvantage, developing children's social competency and emotional health and preparing children for a successful transition into further schooling.[7]

Benefits of early learning were also maximised when there were a mix of socio-economic groups attending ECEC services.[7]

[A] Warren, D & Haisken-DeNew (2013). Early Bird Catches the Worm: The Causal Impact of Pre-school Participation and Teacher Qualifications on Year 3 National NAPLAN Cognitive Tests. Institute of Applied Economic and Social Research The University of Melbourne.
[B] Kalb, G, Tabasso, D & Zakirova, R. Children's participation in early childhood education and care, and their developmental outcomes by Year 5: A comparison between disadvantaged and advantaged children. Melbourne Institue of Applied Economic and Social Research.

What works

The evidence base supports increased time in ECEC and wrap around service models…

Early Years Education Program (EYEP)

The EYEP model is designed for children to attend the service for five hours a day, five days a week for three years – at a level of intensity and quality over and above usual service delivery approaches. It produced significant effects on children's cognitive development and their social and emotional wellbeing.[4]

The program involved staffing over-ratio, inclusion of infant mental health professionals, and a family support worker able to connect families to wider support. This model demonstrates the potential of high-quality, high-intensity programs with wrap-around supports.

Longitudinal Study of Australian Children (LSAC)

An analysis of LSAC data concluded that 'stacking' high-quality ECEC services could have increased benefits for the most disadvantaged children. LSAC data also suggests that exposure to five early years services (antenatal care, nurse home visiting, ECEC, parenting programs, and the early years of school) was linked with increased reading skills at age 8.

This points to an idea of 'added benefit' that children gain from access to more services that wrap around children and families in responding to their needs.[48]

…. as well as higher hours of attendance for children experiencing disadvantage.

There's limited precise data on the optimal number of hours from an Australian context, but some evidence that more time in quality environments is better.

- The EYEP model of 5 hours a day, 5 days a week for 3 years suggests positive outcomes for children and families experiencing significant stress.
- Attendance at ECEC in the first 3 years of a child's life may not produce significant gains for children who were not experiencing disadvantage at home. However, it can provide benefit to those attending high-quality ECEC experiencing disadvantage.[7]
- The E4kids study is the most extensive longitudinal study of ECEC to have been conducted in Australia, examining the impact and effectiveness of early learning, as well as children who did not attend any programs. The study demonstrated that increased hours at early learning in the year before school was a predictor of improved English verbal abilities.[6]
- A key finding of the E4Kids study was also that younger children are likely to gradually build up ECEC attendance in the lead up to the year before school from approximately 10 hours to about 25 hours – and suggested that many children were not attending enough hours for ECEC to contribute to significant developmental growth.

Impact of early learning for children internationally

This section discusses…

1. The types of outcomes and impacts ECEC delivers… *Pages 27 – 29*

2. …the evidence on the number of years of participation that lead to positive outcomes for children… *Page 30*

3. …and the evidence for the optimal hours of attendance. *Pages 31 – 32*

Benefits

The international research base consistently points at the benefits of early learning and there is clear consensus on its impacts for children experiencing disadvantage.

There are at least a hundred international studies of ECEC and though they vary in scope, focus, quality and methodology, the overall findings are consistent and positive.

Key international studies include:

- The UK's landmark Effective Provision of Preschool Education (EPPE) study shows that children from low socio-economic groups benefitted the most from two years of attendance within an early learning program.
- A study in the United States from the Child-Parent Centre Education Program in inner-city Chicago schools demonstrates that at age 28, individuals who had participated in the program had higher educational attainment and socio-economic status, and lower rates of interactions with the youth justice system, and substance abuse.[49] These impacts were strongest for children of parents who had not completed high school – building on the evidence base that shows substantive benefits for children experiencing disadvantage.
- Analysis of data from the OECD's 2015 Program for International Student Assessment (PISA), which measures 15-year-olds' ability to use their reading, mathematics and science knowledge and skills to meet real-life challenges shows that ECEC duration is the strongest predictor of good performance at age 15.[8]

There is clear consensus in the international literature that ECEC impacts children's development and is particularly beneficial for children experiencing disadvantage.

The Brookings Institute in the US convened the leading ECEC researchers from across the country – from conservative economists to data specialists to champions of early childhood – to produce a consensus statement on the evidence-base for investment in preschool programs.

The consensus statement outlines:

> *"Studies of different groups of preschoolers often find greater improvement in learning at the end of the pre-k year for economically disadvantaged children and dual language learners than for more advantaged and English-proficient children."*

Across the research, quality is identified as a significant mediator of the effect of early learning on children's outcomes. Studies with the strongest effect sizes are those in which high-quality programs have been implemented.

- Children in higher quality early learning had somewhat better language and cognitive development during the first four and a half years of life. They were also somewhat more cooperative and had higher quality interactions with peers than those who experienced lower quality care during the first 3 years of life.[2]

Sources:
[A] AEDC, 2021
[B] Brookings Institute, 2017

Case study

Landmark longitudinal studies of preschool programs illustrate the benefits of additional years of access.

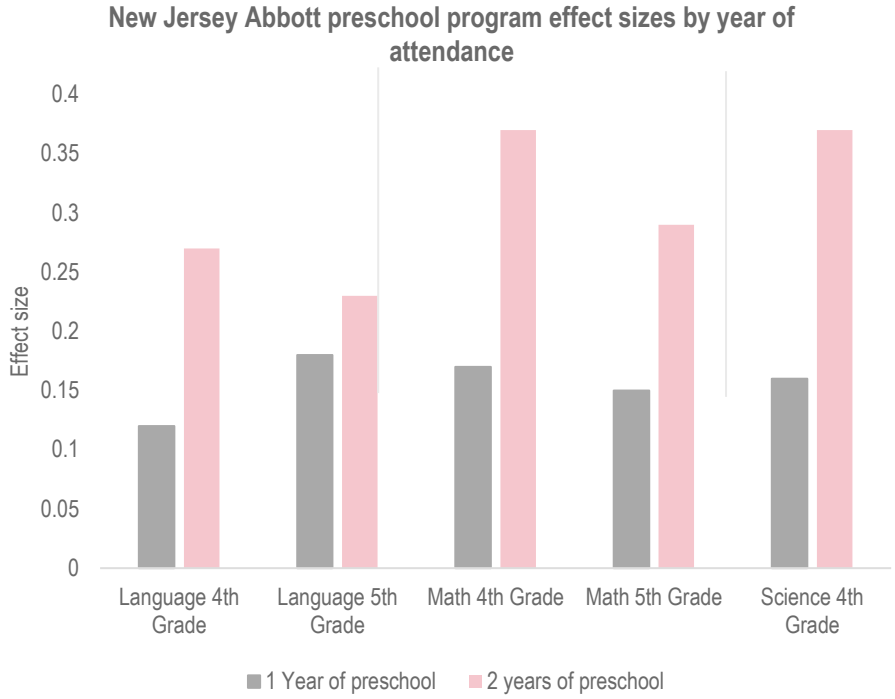
In focus: New Jersey Abbott preschool program

In the early 2000s, the New Jersey Supreme Court mandated the establishment of high-quality preschool programs in 31 of the states most disadvantaged districts. The New Jersey Abbott preschool program includes features such as:[A]

- Universal access in communities with high percentages of low-income families
- High expectations for learning and teaching set in standards
- Adequate funding of about $15,000 (USD) per child per year
- Strong teachers with 4-year bachelor degrees and specialisations in early childhood
- Pay parity with primary and secondary teachers regardless of preschool setting
- A maximum class size of 15
- A starting age of three years old, with children attending for 2 years
- Full school day (at the time of the study the program received free wrap-around child care)
- An extensive continuous improvement system that guides individual teachers, centers, districts, and the state

A longitudinal study of the impact of this program found:[21]

- Positive effects on children's achievement in language, literacy, mathematics and science in grades three to ten
- Roughly twice the effects on achievement for children attending the program for two years compared to children who attended for one year
- While the effects were smaller for children in grades three to ten compared to the effects measured at the start of school, these remained substantial and did not "fade out" over time



[A] National Institute for Early Education Research, 2021

Impact on developmental domains

Time spent in high-quality ECEC supports children's self-regulation, language and cognitive skills, as well as overall wellbeing. These domains of learning have the strongest support for setting children up to start school well, and as lifelong learners.

Self-regulation

Self-regulation skills are the mental processes that enable us to plan, focus attention, remember instructions, and juggle multiple tasks successfully.[A] When children have strong self-regulation skills, they are able to learn and develop and engage in positive behaviours when interacting with others.

The evidence base demonstrates the high-quality early learning supports children's self-regulation skills, and these effects are enduring. A report on Ontario's Kindergarten program, which supports children in the two years before compulsory schooling, found that children participating in the program had higher self-regulation skills than those who did not participate.[14] Further longitudinal research of the Ontario program shows that children who spent more time in the program (full days compared to half days) outperformed their peers on measures of working memory and cognitive flexibility – two key areas that contribute to self-regulation.[6; 22]

In contrast, children participating in low-quality early learning programs appear to engage in increased externalising behaviours, particularly where programs include large groups of children with fewer educators.[3] Externalising behaviours can indicate lower self-regulation capabilities. These findings illustrate the importance of quality in realising the benefits of early learning for all children.

Language, literacy and cognitive development

Language and literacy in the early years form the foundational skills supporting children to think, form connections, and communicate. These skills are crucial in children's academic success, and long-term outcomes. Cognitive skills form the basis of children's ability to solve problems and understand increasingly complex concepts, also contributing to school readiness and lifelong learning.

Evidence from both domestic and international studies illustrate the effects of high-quality early learning on children's language and cognitive development.[5; 14; 16] The EYEP study in Australia found significant effects on children's IQ, comparable to findings of studies in the US.[1; 5] Studies in other jurisdictions have found enhanced language skills, mathematical abilities and vocabulary.[16; 19] Internationally, longitudinal studies have shown these gains to be stable over time, supporting greater rates of high-school graduation, higher socio-economic status, increased health and wellbeing, and fewer interactions with the justice system or substance abuse challenges.[46]

Wellbeing, belonging, positive sense of identity

A strong sense of wellbeing is fundamental to children's sense of belonging, being and becoming. When children feel well, happy, secure and connected to the people around them they are able to fully participate in, and learn from, the daily routines, play, interactions and experiences in their early childhood setting, in school, and throughout the life course.[B]

The evidence shows that children participating in high-quality early learning programs have stronger health and wellbeing outcomes, as well as a growing body of research on positive impacts on socio-emotional skills. These effects are maintained over time into adulthood, with longitudinal studies showing that at age 28, individuals who had participated in high-quality programs had fewer health issues than a control group.[49]

A recent systematic review of the impact of early learning programs on First Nations children found that studies from across Australia, Canada, the US, and Vietnam demonstrate children from First Nations communities stand to benefit greatly from high-quality early learning programs, particularly those programs that focus on wellbeing, language skills, and school readiness.[40]

[A] Centre on the the Developing Child, Harvard University
[B] ACECQA, 2012

Impact of additional years of participation

Multiple large scale, longitudinal studies and meta-analyses support the findings that more years of access increase educational and developmental benefits – although there's more evidence for preschool

There is mixed evidence relating to children under the age of three, but children experiencing disadvantage have been shown to benefit.

Some studies have reported that participation in the first 3 years of life has no strong effects on cognitive and language development for children[7], while others have found evidence of significant effects.

Studies in both the United Kingdom with toddlers and United States with low-income children reported that more time in center-based early learning was related to both stronger cognitive development and stronger emotion regulation scores.

In relation to early intervention for children with developmental delays, there is a clear and consistent evidence base showing that starting earlier yields higher impacts as a result of children's increased brain plasticity during the first three years of life. [25]

There is considerable variability in starting age and length of participation in ECEC internationally – but the overarching message from the research is that starting from 3 and attending for at least two years is beneficial.

The Curriculum and Quality Analysis and Impact Review of European ECEC (CARE) supports investment into expanding access to high-quality three-year-old programs, which generate substantial returns in the long term. The report analyses the impact of policy changes in the 1990s in Spain which supported access to three-year-old preschool. The benefits to children included an increase in PISA reading achievement and reduction in grade retention (being "held back").[10]

A meta-analysis of ECEC programs showed that starting age is a powerful predictor of outcomes, with children starting at age three experiencing the strongest impact on educational and developmental outcomes.[10]

A review suggests, after controlling for family and child characteristics, the longer children were in centers, beginning at age six months, the better they performed on cognitive and language measures.[1]

Children in the United States who engaged in two as opposed to one year of Head Start had stronger vocabulary and literacy skills both immediately upon exit from Head Start and at the end of kindergarten.[1]

There is strong domestic and international evidence of the benefits of providing a universal entitlement to two years of a quality preschool program, rather than targeted to particular cohorts, such as families from low socio-economic backgrounds.[10; 44]

Impact of additional hours (1/2)

There is evidence to support additional hours of participation in early education, but this is only beneficial for children when it is high-quality.

An emerging body of international evidence indicates that more hours of early learning can support better outcomes for children – but only when it is high-quality.

The evidence base for hours of attendance largely relates to children in the two years before fulltime school (aged three to five) given countries across Europe, the United Kingdom, as well as some states in the United States, and Canada already offer entitlements of up to 30 hours for this age group.

Research from these countries has been able to demonstrate, through longitudinal study designs that children accessing more hours of high-quality early learning have enhanced developmental outcomes across several developmental domains.

For all children, more hours in poor-quality services had negative impacts:

- The number of hours spent in early learning was more strongly related to externalising behavior or socio-emotional challenges when children were in low-quality early learning and when children spent a greater proportion of time with a large group of peers.
- The evidence shows that for children participating in low-quality services – particularly in large groups and with high adult to child ratios, increased hours in early learning can correlate to increased behavioural challenges and difficulties in social and emotional regulation.[1]
- The detrimental effects of low-quality programs appear to be particularly concerning for children below the age of two. [33]

There is limited evidence on the impact of very long hours (for example, 50+ per week) on children's learning where children are in high-quality programs – while some studies suggest that this could be detrimental, the evidence base is not mature enough to draw any firm conclusions.

In Ontario, Canada, children in a full day preschool program had increased working memory and cognitive flexibility compared to children attending half day programs.[16]

In the United States, results from the Tennessee Voluntary Pre-K Program indicate that children who attended significantly outperformed the children who did not on all of the direct assessment scales examined, with modest effect sizes ranging from 0.28 to 0.42. This program included an entitlement to 5.5 hours per day across the week.[25]

One study found that added hours of preschool education were substantially effective at closing the achievement gap between disadvantages children and their more advantaged peers. Children in the extended-duration program had improved 11 to 12 standard score points on measures of vocabulary and numeracy skills. Children in half-day programs also improved, but to a lesser degree, at 6 to 7 standard score points on vocabulary and numeracy. Students in the extended program continued to outperform children in the control group in follow-up testing through the first two years of school.[29]

Impact of additional hours (2/2)

Evidence comparing full day to half day early learning programs show that children accessing full day programs do better than their peers in half day programs.

The evidence on full day compared to part day preschool is particularly strong

Children in full day programs have been shown to:[32]

- Have greater self-regulation skills
- Have enhanced language and numeracy skills
- Exhibit more independent learning, classroom involvement, productivity in work with peers, and reflectiveness
- Be more likely to approach the teacher and exhibited less withdrawal, anger, and blaming behaviours when experiencing conflict with a peer

There are a range of studies that highlight why full days may be better:

- Children have more time to engage in learning, including play-based learning to build their social competence and self-regulation, and to engage in literacy and numeracy.[24]
- Increased hours spent in early learning means that children are more likely to engage in high-quality interactions with their peers and educators, and build relationships. Strong relationships form the foundation for increasingly more complex social interactions, and support educators to better understand children, and therefore tailor their learning program more effectively.
- Children are more likely to attend if they are enrolled in full days. Levels of absence, and incidences of chronic absence reduce. Families with access to full days are able to establish routines with their children, which then flow into school readiness and school attendance. [32]
- Families can engage in work and study whilst children attend, meaning that families may improve their economic circumstances.

These findings have relevance as, due to barriers to access, such as a lack of affordability, availability and transport, First Nations children are less likely to regularly attend early learning than non-Indigenous children, especially if in rural and remote areas. Providing more hours of an entitlement to access early learning would likely increase hours of attendance, which increases the opportunity to enhance children's learning and developmental outcomes.

Long term outcomes on vocabulary and reading scores

Comparison between half day and full day EL attendance [14]

Definition

While the definition of a 'full day' program differs in different jurisdictions, most studies included in this review define this as:

- At least 5 hours per day – with greater hours available to support families working hours
- 5 days per week
- 180 – 200 days per year, equal to the number of days a child would attend school

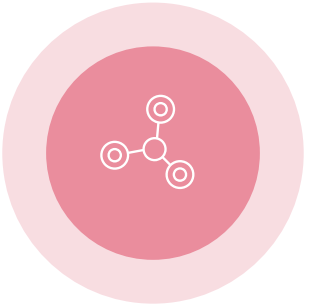
Key features of effective early years programs

Key features – overview

Research on an entitlement to early learning highlights the importance of quality, holistic service models, and models of provision that are closely connected to the communities they serve.

Quality

Only quality* early education delivers substantial and sustained benefits for children.



Service models

Wrap-around, holistic care with intentional, culturally safe learning frameworks support positive child outcomes.

Models of provisions

ACCOs offer unique, wrap-around care services that align with the research on maximising outcomes for children.

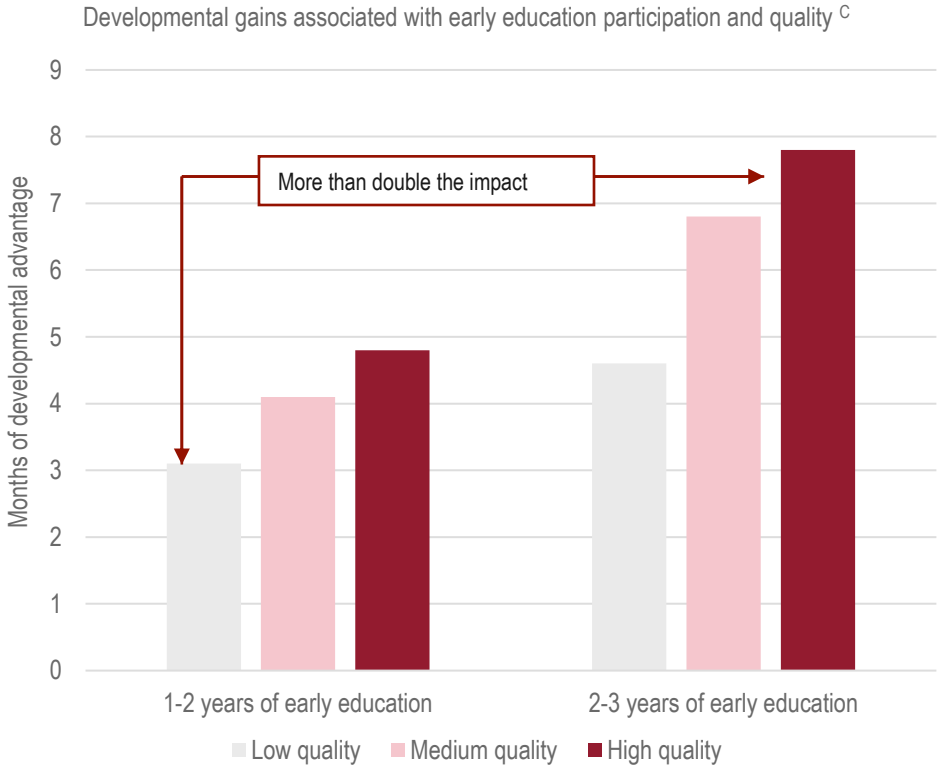
*While the evidence is clear that quality delivers substantial and sustained benefits for children, there is significant variation within the literature on the exact indicators that constitute 'high' or 'low' quality, and how quality is measured.

Impact of quality on children's access and outcomes

Only quality early education delivers substantial and sustained benefits for children.

Without quality, the benefits of investment can be wasted.

Evidence is unequivocal that early education needs to be high-quality to deliver substantial and sustained benefits.[6] The benefits of two or more years of high-quality early education are more than double a single year of low-quality early education.[C] Shifting services from low to medium quality delivers an additional two months of developmental advantage to children.



[A] SNAICC, 2019
[B] Freeborn et al., 2023
[C] Taggart et al, 2015

There are additional dimensions of quality to consider when providing services for Aboriginal and Torres Strait Islander families

Quality is highly contextual – and supporting children and families requires responsive pedagogies that may differ for different contexts and communities. Aboriginal and Torres Strait Islander ECEC programs and pedagogy supports quality by developing positive cultural identity, learning, development and wellbeing of young children.[1]

However, quality frameworks are often driven by mainstream service models. Any entitlement for Aboriginal and Torres Strait Islander children needs to take into account quality as determined by Aboriginal and Torres Strait Islander providers and families to promote the strengths of First Nations ways of knowing, doing and being.

Studies of quality indicators for Aboriginal and Torres Strait Islander children and families highlight several key elements:[A; B]

- Relationships with families, connecting the home and early learning environment
- Focusing on social skills and development as a priority
- Cultural activities that build knowledge, cultural pride, and a strong sense of identity
- Supporting access and attendance for children through transport initiatives, and increasing affordability
- Making Culture visible throughout the program
- Employing a majority of First Nations staff, and staff from the local community in which a service is situated
- Integrated service delivery through integrated hubs, with opportunities for families to seek support, such as parenting programs

These indicators highlight the importance of trust in dismantling barriers to accessing ECEC, and enabling facilitating factors as discussed on page 14.[18]

An entitlement to more hours of early learning can support better developmental outcomes when programs are high-quality, inclusive and culturally safe. These findings underscore the importance of supporting services in offering high-quality programs that are culturally safe to realise the benefits of an early learning entitlement.

Self determination

Self-determination supports quality early learning, allowing communities to direct the services and supports they need.

Enacting self-determination is crucial to enabling quality programs for Aboriginal and Torres Strait Islander children

Self-determination describes the right of Aboriginal and Torres Strait Islander peoples to autonomy and self-governance. The United Nations Expert Mechanism on the Rights of Indigenous People under UNDRIP connects the capacity of Indigenous peoples to meet their children's needs with their ability to exercise self-determination. [A]

As recognised in the National Agreement on Closing the Gap, shared decision-making supports self-determination and understanding of and respect for the lived experiences of Aboriginal and Torres Strait Islander people. Similarly, Aboriginal and Torres Strait Islander community control is an act of self-determination.[B]

Our review found that the most successful early learning programs for Aboriginal and Torres Strait Islander children, and evaluations of their impact, are likely to be led by or designed in collaboration with local communities.[40] Aboriginal and Torres Strait Islander community-controlled organisations deliver services that build on the strengths of and empower Aboriginal and Torres Strait Islander communities and people – supporting the design and delivery of high-quality, culturally safe early learning.

"It is essential that Indigenous children are able to recognise their own culture within all systems of education. This requires more than scattering within the curriculum an occasional Indigenous song or an Indigenous story. It requires Indigenous leadership, respect for the right of Indigenous people to self-determination, and the establishment of respectful collaborative partnerships between community leaders and educators. It also requires honest and transparent accounts of history from multiple perspectives." [46]

"It is the birthright of every child to learn and be secure in the cultural foundations that link them to their family and to their ancestors." [46]

"As well as demonstrating a deep respect for and engagement with Indigenous communities, [First Nations led or co-designed] approaches may facilitate programs which are responsive to the specific needs and contexts of each community and their children." [40]

[A] United Nations Human Rights Council 2021,

[B] Australian Government, 'Closing the Gap Priority Reforms'

Service models

Wrap-around, holistic care with intentional, culturally safe learning frameworks supports positive child outcomes.

Evidence from both international and national research suggests well-designed programs that respond to children and families through contextualised approaches are effective in bolstering child outcomes.

This is frequently referred to as 'intensity' of a program throughout the literature, and is characterised by:

- Programs that focus on families as well as children
- Dismantling barriers to access
- Providing high-quality, culturally safe learning frameworks
- Providing wrap-around, holistic supports

Programs that focus on families as well as children

- The EYEP program embedded a strong focus on parent partnerships to sustain children's participation in the program. The program model included a family services practioner, and was integrated with family support / child protection services.
- Some program models from studies in the United States included weekly home visiting from teachers to support families in offering educational experiences for their children in the home environment.[36] This is supported by other reviews that highlight the benefits of home-visiting, and building strong home-early learning connections.

Dismantling barriers to access

- Some programs, such as the Carolina Abecedarian Project, included transport for children to support children's regular attendance. Access to transport significantly increased children's attendance in comparison to control groups.[35]
- Most programs in this evidence review were no, or low cost, supporting families experiencing disadvantage.

Providing high-quality, culturally safe learning frameworks

- Intentional teacher strategies, with a focus on literacy and numeracy are effective:
  - The evidence supports pedagogically-driven reflective teaching models that are child-focused and designed to align with the National Early Years Learning Framework (EYLF) and the National Quality Standard. In the EYEP model, for example, each child is provided with individual learning goals developed in partnership with families. Educators plan a curriculum using play-based approaches and intentional teaching to support each child's learning and development across outcomes in the EYLF – consistent with guidance provided for all educators in the framework.
  - The literature strongly supports culturally safe programs which acknowledge Aboriginal and Torres Strait Islander pedagogies and practice in supporting young children to learn and develop.[17]

Providing wrap-around, holistic supports

- Studies from the United States, including the Abecedarian and New Jersey Abbott programs included wider services such as early intervention for children with additional needs, maternal child health and nutrition.[35; 36; 21]
- The EYEP program included a multidisciplinary team, with an in-house infant mental health consultant as an integral team member, which contributed towards enhanced social-outcomes and resilience for children participating in the program compared to children in the control group.[6]
- Research drawing from LSAC data shows that 'stacking' early years services holds promise for maximising the impact on child educational attainment, important for health outcomes over the course of life. Exposure to five early childhood services (including antenatal care, nurse home visiting, early childhood education and care, parenting programs, and the early years of school) is related to better reading at age 8 compared with access to fewer services. This pattern of 'added benefit' from access to more services and 'cumulative risk' from exposure to more risks associated with five key early services was similar for disadvantaged and non-disadvantaged children, with no evidence of differential benefit. Place based approaches to community health and education are increasingly popular and signal a potential avenue for considering how systems might better stack interventions and test the impact of quality and participation does across the early years of childhood.[48]

Models of provision

ACCOs offer unique, wrap-around care services that align with the research base on maximising outcomes for First Nations children. Culturally safe ECEC is respectful, holistic, and free from bias, discrimination and racism – which is fundamental to creating environments that foster learning and development.

Research is clear that cultural safety is a precondition for meaningful access and participation in early learning for Aboriginal and Torres Strait Islander children and families.

First Nations families value culturally safe early learning for their children highly, which they perceive as supporting their child's cultural identity, knowledge, and connection, and fostering a strong sense of belonging and identity. ACCOs delivering integrated early childhood programs are recognised as strengthening Aboriginal and Torres Strait Islander children's school readiness and have been shown as a preferred model of care for Aboriginal and Torres Strait Islander families and communities. ACCO integrated hubs are uniquely placed to provide high-quality, culturally safe programs consistent with Aboriginal cultural ways of child rearing, including practices such as storytelling, play-based, lifelong learning, and collective education with multiple care givers.[B]

ACCO integrated hubs:

- Support the holistic needs of families
- Provide high-quality, culturally safe early childhood programs
- Create safe spaces for community connection
- Offer universal and flexible programs that are responsive the the communities they serve

We acknowledge that while ACCO services represent the 'gold standard' of ECEC provision for First Nations children and families, this model may not be feasible or relevant in every context. In contexts where ACCO models are not feasible, culturally responsive ECEC programs are critical to enabling children's learning and development. ECEC programs which do not uphold cultural identity, cultural respect, and connection could be perceived to "accelerate the loss of cultural and language heritage for Indigenous children".[40]

Our review found:

- Trust is the pivotal characteristic driving engagement in ECEC amongst Aboriginal and Torres Strait Islander families.[18] ACCOs and culturally safe providers are well placed to foster trust in communities, and therefore minimize any actual or perceive barriers to access for families.
- Aboriginal and Torres Strait Islander led, or co-designed approaches may best facilitate programs that are responsive to the needs of communities and the contexts in which they are situated.[40]
- Aboriginal and Torres Strait Islander families prioritise relational care, and highlight the importance of employing Aboriginal and Torres Strait Islander staff, and minimising staff turnover to promote engagement with families.[17]

Despite a robust evidence base demonstrating the impact of high-quality, culturally safe early childhood programs, data show that Aboriginal and Torres Strait Islander children are underrepresented in ECEC – with 26.5 per cent of First Nations children between the ages of zero to four accessing ECEC, compared to 40.8 per cent of non-Aboriginal and Torres Strait Islander children.[C] One of the key barriers to access is existing funding models for ECEC, which do not support ACCOs effectively and efficiently to meet the needs of the communities they serve, and result in families missing out on high-quality, culturally safe ECEC.[C]

Strengthening the Community-controlled sector is a key policy priority aimed at reducing disadvantage in First Nations communities, and is one of four priority reform areas in the National Agreement on Closing the Gap.

[A] Brennan, 2013
[B] Ashton, Hawting & Harrison, 2011
[C] Senate Select Committee on Work and Care, 2022

Case studies

Evaluation of an Aboriginal early childhood learning centre in Central Australia

Arrwekele Akaltye-Irretyeke Apmere Centre for Aboriginal children in Alice Springs, Australia delivers a high-quality educational program for children and is overwhelmingly valued staff, families and community stakeholders.[39]

Arrwekele Akaltye-Irretyeke Apmere Centre

Arrwekele Akaltye-Irretyeke Apmere Centre (the Centre) was established by the Central Australian Aboriginal Congress, a local ACCO, in 2017. The Centre was established to provide early learning for children not already accessing ECEC, supporting children from 6 months to approximately three years old. Children attending engaged in a mixed age program, moving freely between the indoor and outdoor spaces of the program. The Centre maintained a 1:4 staff to child ratio, consistent with the regulatory requirements for this age group. The Centre adopted the Abecedarian approach to guide the educational program, using evidence-based teaching and learning strategies. This approach has been shown to be effective in supporting Aboriginal educators, families and children in Australia, including the Northern Territory.

Evaluation of the Centre

The evaluation design included both qualitative and quantitative methods to build an understanding of the impact the service had and its progress towards meeting its objectives.
Who: The evaluation was initiated by the governing body for the Centre, who engaged the Murdoch Children's Research Institute and the Baker Heart and Diabetes Institute to co-lead the evaluation. The evaluation was co-led by First Nations researchers Roxanne Highfold and Dr Sandra Eades.
The evaluation included:

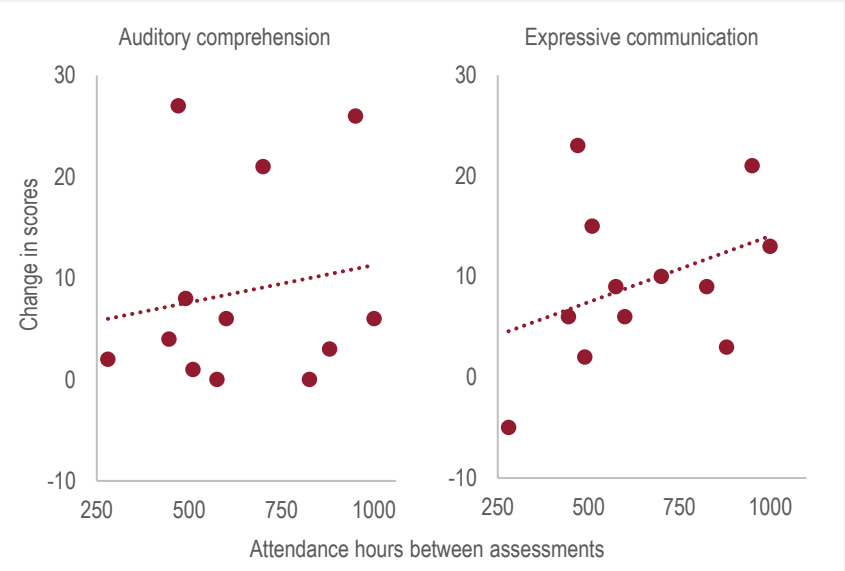
- Interviews and surveys with families, staff and community stakeholders on their perceptions of the service's quality, cultural safety, observed changes in children's behaviour and opportunities for the service to improve
- Classroom observations – using the CLASS observation tools, undertaken by trained and certified CLASS observers
- Measures of language and child development – including the Preschool Language Scales and the ASQ-TRAK
- A document review – including documents such as the service's philosophy, vision and mission statements, to support an analysis of the service's quality
- Child attendance, health and demographic information – child attendance was collected to measure children's degree of exposure to the early learning program, and heath and demographic information from

Results – quantitative

Key results of the classroom observations, measures of language and child development, and child attendance indicated:

- Attendance fluctuated greatly throughout the evaluation program, with the primary reason being illness of children
- The quality of classroom interactions improved over time for emotional and behavioural support as well as engaged support for learning
- Children who had language assessments completed at 2 time points increased by a median of 5 points in auditory comprehension and 11.5 for expressive communication. There were indications that the difference in the children's two scores increased with the number of hours attending the program
- The Centre was assessed and rated as 'exceeding' the National Quality Standard during the evaluation period

Scores over time for auditory comprehension and expressive communication [A]



Evaluation of an Aboriginal early childhood learning centre in Central Australia

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Results – qualitative

Key results of the interviews and surveys indicated:

- Staff reported using the Abecedarian approach to plan activities for children
- Individual learning plans were drawn up for each child, with input from families
- Participants in the evaluation regarded the program as culturally safe, but would have liked more staff speaking in Aboriginal languages
- Survey and interview data indicated a highly positive regard for the Centre amongst participants

> *"The program is really good, especially the one-on-one intensives. I felt proud seeing [him] doing the activities."* – Parent / carer

> *"[3a is] an American-based thing, but we break it down into our language, and ... the kids understand. Them learning games are based over there, but we could always change it ... And that's still learning off that learning game, but just in our way."* – Staff member

> *"You can see it in the kids. They're all just, they like being there, they like the staff, and they're happy. And the staff are happy."* – Community member

> *"I've seen kids come in that had behavioural problems and all that, and since they've been [coming] here, the workers and everybody else around them shows that little kid that they're special. And when little kids see that, they want to come all the time. And because we let them learn at their own pace."* – Staff member

What does this mean for supporting high-quality ECEC for Aboriginal and Torres Strait Islander children?

This evaluation found that the Centre delivered a high-quality program, valued by families, staff members, and community. The program supported children's language in particular, and other developmental domains through a culturally adapted learning program that responded to the needs of community. This demonstrates the impact high-quality programs can have for Aboriginal and Torres Strait Islander children, and how programs can be tailored to effectively respond to the needs of unique community contexts.

Opportunities for improvement included employing more staff and reducing staff turnover. This finding is consistent with data showing the staffing challenges experienced in remote areas in particular, and points to the need for enhanced supports for services in areas of undersupply.

Insights for future design of similar program evaluations

The evaluation approach and methodology were developed in partnership with the governance body for this service, a local ACCO. This ensured the approach was suited to context, available resources, and timeframes. This is considered best-practice research design, consistent with the principles of self-determination.

The methodology allowed for a multi-faceted approach, evaluating the Centre from different perspectives, using different methods, and employing a multi-disciplinary team – including a significant investment in training staff who were based in Alice Springs.

The Early Years Education Program (EYEP) Model in Victoria, Australia.

The Early Years Education Program randomised control trial demonstrated significant impacts on child development through holistic, wrap-around supports.[4]

EYEP

The EYEP was trialed at the Kids First West Heidelberg Children Centre. The model aimed to support the emotional, social and cognitive development of children who had experienced acute disadvantage, such as living with significant family stress and at heightened risk of, or having experienced abuse or neglect.

The goal was to support infants and children experiencing disadvantage to start school developmentally equal to their peers, with the knowledge, skills and attributes foundational for lifelong learning. The dual focus of the program was:

- Addressing the consequences of significant family stress on children's brain development, emotional and behavioural regulation
- Redressing learning gaps

The EYEP supported children from 6 months to 4 years, offering five hours of ECEC per day each week, for 50 weeks of the year, over three years.

Key features of the program include:

- High staff / child ratios
- Diploma qualified staff
- Enriched care giving
- High-quality curriculum-based education based on the new National Early Year Learning Frameworks
- Integration with Family Support/Child Protection services
- A strong focus on building partnerships with parents to sustain their child's participation in the program.

The Heidelberg West Centre was twice awarded the coveted 'Excellent' rating by the Australian Children's Education and Care Quality Authority (ACECQA). At the time, it was the first and only early learning service in Victoria to be re-awarded the benchmark and one of only 52 services across Australia (out of 13,500 rated centres).

Randomised control trial

The independent randomised control trial of EYEP was the first of its kind in Australia, conducted by the University of Melbourne and the Murdoch Children's Research Institute and funded through the Australian Research Council.

The trial published results after 12 and 24 months of enrolment in the program. At both timepoints, results showed increases in child development – with results at 24 months demonstrating broad and powerful effects of the program. Specifically, the EYEP had positive impacts on:

- Children's IQ
- Protective factors related to resilience
- Social-emotional development
- Language skills
- Psychological distress of primary caregivers

The impacts of the program were greater when measured at 24 months of enrolment – consistent with research demonstrating that two years of early learning contribute to greater effects on child learning and development outcomes.

A qualitative study on the EYEP conducted in 2016 offers insights on the features critical to driving these outcomes, including:[4]

- Taking the time to offer intensive support, and giving families space to gradually orient into the program
- Fostering a welcoming environment for families, and engaging them in their children's learning
- Providing high-quality training for staff and educators, including attachment theory, trauma-informed practice, holistic approaches and relational pedagogy.

Ontario full-day kindergarten program

A report on a two-year play-based full-day kindergarten program in Ontario, Canada.[14]

Ontario's Full-Day Kindergarten

Full-Day Kindergarten is a non-mandatory, publicly funded educational program provided to all children in Ontario through local public schools in the two years before fulltime schooling. While this cohort includes First Nations children, the initiative is not specific to First Nations communities. The initial rollout of this program began in 2010 and was completed in 2014.

Key features of the program include:

- A two-year program, starting in the year a child turns four and ending in the year in which they turn five.
- A team of educators with complementary skills working together in the Kindergarten classroom: a bachelor qualified teacher and a diploma qualified early childhood educator. This team stays with the same children for two years, building strong relationships with children and their families.
- The Ontario Kindergarten curriculum – a play-based learning approach that prioritises child-directed learning through inquiry
- Not less than five hours per day of an educational program for 194 days per year – plus before and after school care available in many schools.
- An average class size of 26 children

Reported effects

This report synthesises results from several studies of Full-Day kindergarten, with findings demonstrating:

- Improved vocabulary and language abilities
- Enhanced reading and mathematical abilities
- Increased self-regulation capabilities, socio-emotional and behavioural abilities
- Improved school completion and post-secondary attendance by Full-Day Kindergarten students as they progress through their school experiences
- Reductions in special and remedial education expenditures on students who have been in Kindergarten
- Better mental health of students and enhanced student well-being
- Increased workforce participation, employment hours and lifelong earnings for Full-Day Kindergarten students as they move through their adult lives
- Increased payment of taxes on these higher earnings to help support socially desirable government expenditures;
- Improved health of former Full-Day Kindergarten students and lower necessary health expenditures;
- Reductions in social assistance payments
- Increased participation in community leadership and civic engagement by former Full-Day Kindergarten students
- Increased employment hours, reduced absenteeism, increased workforce participation and increased earnings by parents (especially mothers) of young children attending Full-Day Kindergarten.

Appendix A – evidence gaps

Methodological insights – Australian research base

The research on an ECEC entitlement for Aboriginal and Torres Strait Islander children is thin, and there's a significant lack of research authored by First Nations researchers.

The evidence base for a 30-hour entitlement that is grounded in an Aboriginal and Torres Strait Islander and Australian perspective is still maturing. We found two key drawbacks to the available literature: a lack of Aboriginal and Torres Strait Islander research and a small-medium body of Australian focused literature. With this in mind, our report draws on the international community of First Nations authors, specifically in Canadian and Aotearoa New Zealand contexts as well as a robust evidence in Europe and America to round out our conclusions on entitlement.

1

We recognise the importance of prioritising literature and evidence authored by Aboriginal and Torres Strait Islander researchers, organisations and communities so that we can minimise further entrenchment of Western ways of producing knowledge and measuring impact in contexts where it is not relevant, nor appropriate.

Where possible, we have cited research by identifiable Aboriginal and Torres Strait Islander authors or co-contributors. We found this to be a significant gap in the literature, with only 8% of the studies cited identifying an Aboriginal and Torres Strait Islander author or co-author.

There were two confounding factors that we encountered in identifying Aboriginal and Torres Strait Islander literature in this space:

- Authors may or may not choose to culturally identify themselves in their work
- Authors may be constrained by journal publishing formats that may limit their ability to culturally identify

This highlights to us that there may be Aboriginal and Torres Strait Islander authors in our annotated bibliography that were not captured because they were either (a) unable to self identify or (b) may have chosen not to bring an Aboriginal and Torres Strait Islander lens to their work and therefore chosen not to self identify. In either case, the ECEC literature would benefit from Aboriginal and Torres Strait Islander contributions. The research would also benefit from further nuance in understanding high-quality ECEC practice and cultural needs for both Aboriginal and Torres Strait Islander children, and how this may differ across cohorts and contexts.

The lack of Aboriginal and Torres Strait Islander research in this space indicates that there needs to be investment and valuing of Aboriginal and Torres Strait Islander methodologies, and support for Aboriginal and Torres Strait Islander authors to conduct research from a self determination approach.

2

There is a limited Australian evidence base on the impact of ECEC or the specific program design factors – like number of hours of attendance – that drive impact.

The Australian evidence base also does not consistently report full demographics data – meaning that it's often unclear whether a sample has included Aboriginal and Torres Strait Islander children or not.

The landscape of Australian research in this space compounded by the lack of available randomised control trials (RCTs) that the evidence base is able to draw from. RCTs involving children present important ethical, practical and logistical challenges that have limited this form of research and data collection. It is also important to recognise First Nations methodologies, which draw from First Nations experiences and community-controlled research – which is arguably the most powerful source of evidence we can learn from in this domain.

Methodological insights – international research base

The evidence base for ECEC has evolved in an ad-hoc way over time and therefore the scope and quality of the evidence base doesn't always provide the specificity or precision sought by policy-makers.

There is a much larger evidence base for ECEC than many other social and educational investments, but its an evidence-base that has evolved in an ad hoc way over time and therefore doesn't always provide the specificity or precision sought by policy-makers. ECEC research has been undertaken in a variety of different delivery contexts (across countries, settings, communities), using diverse methodologies, with differences in sample size and outcomes measures.

As a result, while the evidence points consistently in the same direction and there's good levels of consensus among researchers about some of the key foundations, there are some gaps and limitations. Of particular note are:

Volume and focus of research

There has been much more research on impact of ECEC programs for 3-5 year olds than there has for 0-3 year olds. This is largely because the big studies in recent years have come from the US, where the big policy questions have focused on pre-k programs for 3-5 year olds (universal ECEC has been in the norm in Europe for decades and therefore impact research has not been a significant research priority).

This means we know a lot more about programs for preschoolers than infants and toddlers, and that the evidence base for preschool is more compelling than for younger children – even though this is largely a product of the volume of research.

Outcome measures

While there's general consensus about several domains impacted by quality ECEC, across the evidence-base, different outcomes have been measured, using a raft of different measurement tools. Some outcomes (like language) have attracted more focus than others (like sense of identity). And some outcomes measures are fairly blunt and don't provide good measures of what really matters – for example, measures of vocabulary (the number of words children know) are common, easy and affordable to administer but more nuanced measures of comprehension and expression are less well developed and take time and experienced researchers to implement, even though they speak to more sophisticated and meaningful skills.

This means we're not capturing the full range of outcomes and impacts from ECEC, and that the impacts we do see in the evidence-base are not always easy to aggregate and provide cut-through data on the size and scale of the benefits.

Precision

While there's confidence and consensus about the overarching impacts of ECEC, the diverse existing evidence-base hasn't always measured explicitly all the factors needed to provide precision about the drivers of impact or the minimum thresholds needed to achieve impact, or the specifics of 'what works for whom in what circumstances. In particular, deriving a precise threshold of minimum hours of attendance has proved elusive (not least because children's strengths and needs vary) even though there's clearly a relationship between participation and outcomes.

This means that the evidence-base provides guidance on what's optimum for most children, but does not yet speak to specific numbers of hours of attendance required or to the diverse needs of different children.

Aligned evidence-bases

The research on ECEC draws from both specific research on early education and the wider and rapidly growing evidence about child development and the factors that foster positive developmental trajectories for young children. For example, child development research points to the importance of attachment to adult caregivers and predictable routines, which informs ECEC design and delivery decisions about regular attendance with consistent educators.

This means that for some key design features for effective ECEC programs there isn't a specific evidence-base for particular practices or ways of working, but there is a very strong underpinning alignment with what is known about child development and from the neuroscience which then influences pedagogy and practice.

Appendix B – references

References (non-bibliography sources) - 1/4

Slide 5 (executive summary)

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Slide 28 (case study)

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