

# Methodology: Use of evidence and evidence-based practices in early childhood education and care

National snapshot 2021/2022

July 2023



# **The Australian Education Research Organisation (AERO) is Australia's national education evidence body, working to achieve excellence and equity in educational outcomes for all children and young people.**

---

## **Acknowledgements**

AERO acknowledges that this publication was made possible by the joint funding it receives from Commonwealth, state and territory governments.

The authors would like to thank all those who participated in surveys and interviews and who contributed with reviews of early report drafts.

## **Acknowledgement of Country**

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

## **Authors**

Kate Ridgway, Ioana Ramia and Julie People.

## **Copyright**

All material presented in this publication is licensed under the [Creative Commons Attribution 4.0 International Licence](#), except for:

- photographs
- the organisation's logo, branding and trademarks
- content or material provided by third parties, where CC BY 4.0 permissions have not been granted.

You may copy, distribute and adapt the publication, as long as you attribute the Australian Education Research Organisation Limited ACN 644 853 369, ABN 83 644 853 369 (AERO), and abide by the other licence terms.

## **How to cite**

Ridgway, K., Ramia, I., People, J. (2023). *Methodology: Use of evidence and evidence-based practices in early childhood education and care*. Australian Education Research Organisation.  
<https://www.edresearch.edu.au/resources/methodology-evidence-use-evidence-based-practices-early-childhood-education-and-care>

## **Publication details**

ISBN 978-1-923066-06-9 (Online)

Cover image: FatCamera (iStock)

# Contents

---

<b>Methodology and survey demographics</b>	<b>4</b>
AERO evidence use survey demographics	5
Rapid literature review	6
Secondary data use – ACECQA's NQS dataset	10
Interviews	11

---

<b>Limitations</b>	<b>12</b>
--------------------	-----------

---

<b>References</b>	<b>12</b>
-------------------	-----------

## Figures

Figure 1: AERO's Rapid review process	6
Figure 2: ECEC interviewee recruitment flow chart	11

## Tables

Table 1: Eligibility criteria	7
Table 2: Databases – ECEC search	9

## Methodology and survey demographics

This national snapshot of use of evidence and evidence-based practice in early childhood education and care (ECEC) services by the Australian Education Research Organisation (AERO) is based on findings from:

- AERO's evidence use survey
- a rapid review of existing literature on evidence use
- early findings from interviews with ECEC educators, teachers and leaders
- analysis of the Australian Children's Education & Care Quality Authority (ACECQA)'s National Quality Standards (NQS) dataset.

### Terminology: Educators, teachers and leaders

In this methodology and throughout the reports, we refer to 'educators, teachers and leaders' to describe the variety of roles that staff working in ECEC settings may hold. Within each of these categories, roles are diverse, especially in 'leader' roles, which include direct contact with children, as well as administrative-only roles. The 'leader' category includes nominated supervisors, educational leaders, and service directors and coordinators. We also use the term 'practitioners' to refer to all educators, teachers and service leaders in ECEC services.





## AERO evidence use survey demographics

Between February and December 2021, 413 ECEC educators, teachers and leaders completed AERO's evidence use survey. The survey comprised 37 quantitative questions about:

- practitioners' confidence and attitudes towards evidence
- their use of evidence
- their service's workplace supports and culture regarding evidence use.

The survey was informed by questions asked in similar surveys in Australia, the United Kingdom and the United States.

Survey respondents were broadly representative of the ECEC sector and different service types across each Australian state and territory<sup>1</sup>. Having a representative sample means that while the sample size is only a fraction of the total number of early childhood practitioners currently working in Australia, our findings can be generalised to this broader population.

Most survey respondents worked at privately-run services (53%), with fewer working at community-based services (24%) and a small number working at council-operated services (7%). Some did not specify the funding structure of their service (2%). ECEC survey respondents worked in different types of services (including 53% in long day care, 21% in preschool or kindergarten, 9% in outside school hours care (OSHC), 4% in family day care, and 2% in in-home care provided in a child's home). They had varying levels of experience, ranging from less than a year to 50 years. Most were ECEC teachers or educators without formal leadership roles (62%), 28% were mid-level or service leaders, and the remaining 10% did not provide information on their ECEC role.

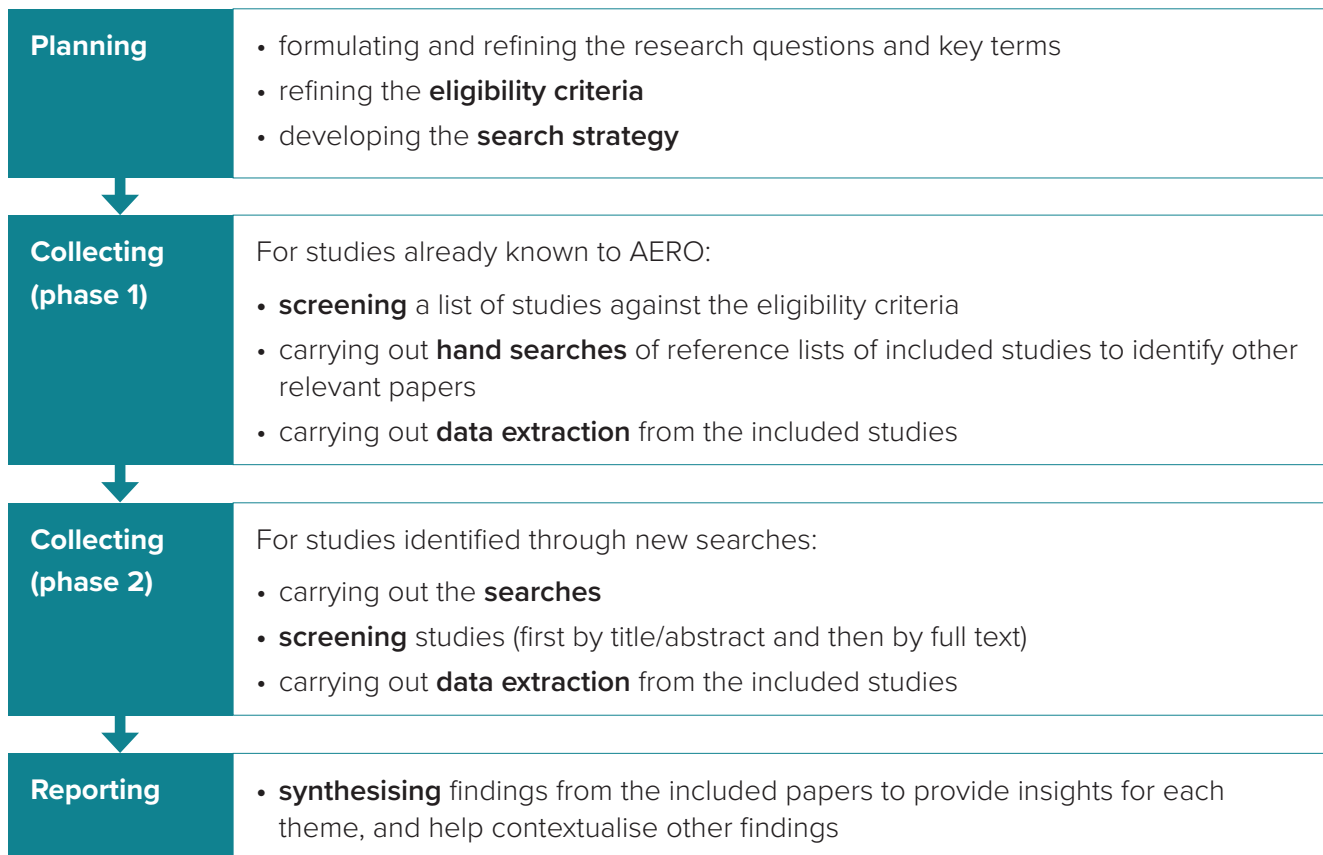
---

<sup>1</sup> There is an underrepresentation of OSHC services and respondents in the survey results (28% of services in NQS compared to 9% in our survey) and a slight overrepresentation of Queenslanders (26% compared to 20% of services from Queensland in NQS).

## Rapid literature review

Literature referenced in the national snapshot was identified through a rapid review process conducted by AERO. The specific steps involved in planning, collecting and reporting for the rapid review process are illustrated in Figure 1.

**Figure 1:** AERO's Rapid review process



The research question answered by this rapid review is:

- What is the current state of evidence use (both research evidence and educator-and-teacher generated evidence) and evidence-based practice in ECEC services in Australia?

For this review:

- 'Evidence use' is defined as use of research evidence and educator-and-teacher generated evidence.
- 'Research evidence' is defined as academic research – such as causal research or synthesis research – which uses rigorous methods to provide insights into educational practice.
- 'Educator-and-teacher generated evidence' is evidence generated by teachers and educators through their daily practice. This includes practices described in the NQS and the approved learning frameworks, such as observation, documentation, assessment for learning, critical reflection, and the process described by the Assessment and Planning Cycle.
- 'Current state' is defined as 2017–2022, although relevant evidence within the previous 5 years (2012–2017) will also be considered.

The following themes are of interest:

- practitioner perceptions about evidence use
- practitioner confidence/skills in using evidence
- the practice of evidence use and evidence-based practices, including –
  - who uses evidence
  - what types of evidence are used (including how different types of evidence are used together)
  - the purposes for which evidence is used
  - how often evidence is used
  - what types of evidence-based practice are used (and how these compare with selected international benchmarks)
  - processes around how evidence is used
  - enablers and barriers to evidence use (including at the level of the sector, service, individual practitioner, processes and the evidence itself)
  - gaps in the existing research on evidence use (including gaps identified by practitioners).

### Inclusion criteria

Inclusion and exclusion criteria by population, activity, setting, study design, publication details and outcomes are listed in Table 1.

**Table 1:** Eligibility criteria

Theme	We <b>included</b> studies with all these features	We <b>excluded</b> studies with any of these features
<p><b>Population</b> (whose practice is being reported on?)</p>	<ul style="list-style-type: none"> <li>• ECEC practitioners</li> <li>• ECEC services.</li> </ul> <p>Note: Studies examining how ECEC services work with external providers such as professional learning providers or coaches are eligible for inclusion.</p>	<ul style="list-style-type: none"> <li>• Pre-service practitioners only</li> <li>• Tertiary education practitioners</li> <li>• Policymakers only.</li> </ul>
<p><b>Activity</b> (intervention)</p>	<p>Evidence use generally:</p> <ul style="list-style-type: none"> <li>• use of research evidence</li> <li>• use of educator-and-teacher generated evidence                             <ul style="list-style-type: none"> <li>- data-driven decision making.</li> </ul> </li> </ul> <p>Enablers and barriers to the use of evidence and evidence-based practices.</p>	<p>Evidence use generally:</p> <ul style="list-style-type: none"> <li>• activities delivered directly by researchers or research assistants.</li> </ul> <p>Evidence-based practices – ECEC:</p> <ul style="list-style-type: none"> <li>• ECEC philosophies or general approaches (for example, the Montessori approach)</li> <li>• manualised or pre-packaged programs.</li> </ul>

Theme	We <b>included</b> studies with all these features	We <b>excluded</b> studies with any of these features
<b>Setting</b>	<ul style="list-style-type: none"> <li>• Australia (for primary studies)</li> <li>• High-income countries as classified by the World Bank, including Australia (for evidence reviews).</li> <li>• ECEC services including:               <ul style="list-style-type: none"> <li>- preschool or kindergarten</li> <li>- long day care service</li> <li>- family day care service (provided in the home of an early childhood professional)</li> <li>- outside of school hours care service</li> <li>- in-home care service (provided in a child's home)</li> <li>- vacation care service</li> <li>- occasional care services.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Countries outside Australia (for primary studies)</li> <li>• Middle-income or low-income countries as classified by the World Bank (for evidence reviews)</li> <li>• ECEC services:               <ul style="list-style-type: none"> <li>- interventions primarily delivered in the home (including home visits)</li> </ul> </li> <li>• Adult education courses or classes delivered primarily by external specialists (for example, clinical psychologists).</li> </ul>
<b>Study design</b>	<p><b>Evidence synthesis:</b></p> <ul style="list-style-type: none"> <li>• umbrella reviews (reviews of reviews)</li> <li>• meta-analyses</li> <li>• systematic reviews</li> <li>• scoping reviews.</li> </ul> <p><b>Primary studies:</b></p> <ul style="list-style-type: none"> <li>• primary studies reporting on empirical data about use of evidence or evidence-based practices</li> <li>• implementation studies only (for example, studies examining enablers and barriers only)</li> <li>• pilot studies that otherwise fit the criteria above</li> <li>• case studies.</li> </ul> <p><b>Other:</b></p> <ul style="list-style-type: none"> <li>• dissertations that otherwise meet the inclusion criteria</li> <li>• selected grey literature including reports</li> <li>• book chapters.</li> </ul>	<ul style="list-style-type: none"> <li>• Reviews summarising non-empirical studies</li> <li>• Primary studies that test the effectiveness of a practice only (that is, they do not report on frequency of use or enablers and barriers)</li> <li>• Non-empirical studies, including opinion pieces and theoretical frameworks</li> <li>• Protocol papers</li> <li>• Studies testing the development of instruments</li> <li>• Conference publications</li> <li>• Blogs.</li> </ul>
<b>Publication details</b>	<p>Published:</p> <ul style="list-style-type: none"> <li>• since 2012</li> <li>• in English.</li> </ul>	<p>Published:</p> <ul style="list-style-type: none"> <li>• before 2012</li> <li>• languages other than English.</li> </ul>



## Where and how did we source the studies?

Table 2 lists the databases used for this rapid review. These were selected based on their availability and relevance to the Australian context.

Database searches were carried out by AERO. Search results were collated and converted into a standard Excel format. Screening was carried out by 2 AERO researchers, with queries about specific articles decided by the project team.

**Table 2:** Databases – ECEC search

Database	Date searched	Number of results
EBSCO (Education Research Complete and ERIC)	March 2022	324
Informit (A+ Education and Australian Public Affairs [APAFT])	March 2022	131
ProQuest (Education Collection)	March 2022	94

A total of 557 studies were reviewed – 552 identified through these databases and 5 from searching grey literature.



## Secondary data use – ACECQA’s NQS dataset

ACECQA publishes regular snapshots of NQS data across 7 quality areas (QAs):

- QA1 = Educational program and practice
- QA2 = Children’s health and safety
- QA3 = Physical environment
- QA4 = Staffing arrangements
- QA5 = Relationships with children
- QA6 = Collaborative partnerships with families and communities
- QA7 = Governance and leadership.

There are 2–3 standards under each QA, with 2–3 elements under each standard.

The analysis for this report uses data collected through Quarter 4 of 2021, the most recent data available at the time these analyses commenced. This period also corresponds to the time the AERO evidence use survey data was collected. The analyses focus on QA1 standards 1.2 Practice and 1.3 Assessment and planning; QA5 standards 5.1 Relationships between educators and children and 5.2 Relationships between children; and QA6 standard 6.1 Supportive relationships with families.

Under the National Quality Framework, services are allocated 1 of 3 ratings for each quality area: Working Towards NQS, Meeting NQS or Exceeding NQS. An additional option – Significant Improvement Required – is possible in cases where quality is of concern. Services can apply to receive an ‘Excellent’ ranking if they were ranked as Exceeding NQS across all 7 quality areas.

Within each quality area, individual standards also have 3 possible ratings: Working Towards NQS, Meeting NQS or Exceeding NQS. If any elements within a standard are not met, the service is ranked as ‘Working towards NQS’ for the respective standard. If all elements are met, the service is ranked as ‘Meeting NQS’. ‘Exceeding NQS’ indicates that in addition to meeting all the elements, the service must demonstrate 3 ‘Exceeding’ themes for that standard:

- Practice for this standard is embedded in service operations.
- Practice for this standard is informed by critical reflection
- Practice for this standard is shaped by meaningful engagement with families and/or community (ACECQA, 2022).

Data was analysed at element- and standard-level. Frequencies are most often reported as a proportion of services at least meeting or exceeding particular standards. We also investigated correlations between standards within and across quality areas.

## Interviews

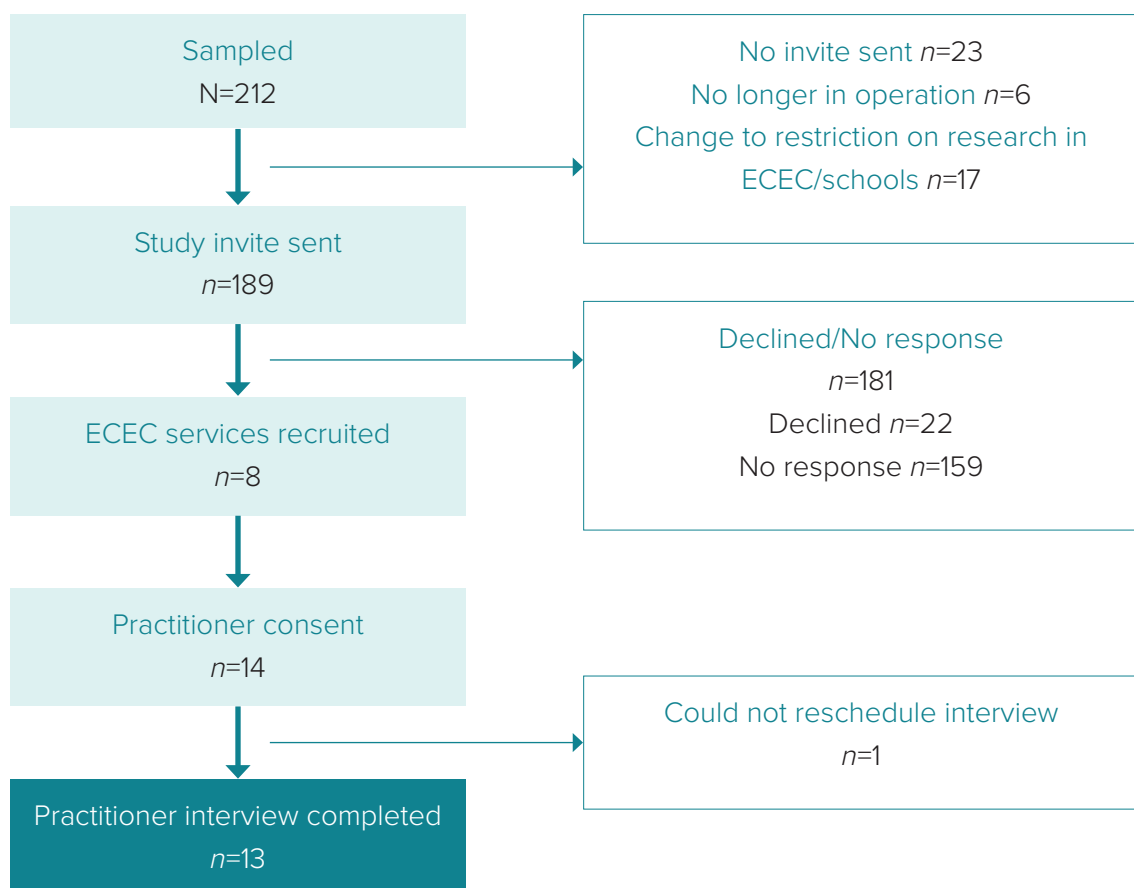
Semi-structured interviews were conducted with ECEC practitioners across Australia to examine how ECEC practitioners use research evidence and educator-and-teacher generated data in their practice.

Stratified random sampling was used to develop a list of potential ECEC services from a range of services across Australia. A stratified random sampling method was used to ensure the sample included a mix of service types, locations (states and territories) and location types (metropolitan/regional/rural), socio-economic status categories (using the ABS Socio-Economic Indexes for Areas [SEIFA] Index of Relative Socio-Economic Disadvantage score), and NQS ratings. ECEC services were sampled using the [ACECQA national register](#).

Due to a range of recruitment challenges, the number of interviews completed was lower than expected (Figure 2).

Transcripts from the semi-structured interviews were thematically analysed to derive overarching themes.

**Figure 2:** ECEC interviewee recruitment flow chart



## Limitations

We acknowledge a range of limitations to this national snapshot of evidence use:

- The studies reviewed involved quite small samples and mostly rely on qualitative data.
- Some areas of interest – for example the depth or quality of evidence use in ECEC services – have not been explored much in the literature.
- COVID-19 restrictions and availability of staff for interviews resulted in a lower sample size than initially intended.
- The investigation of use of evidence-based practices was limited by the availability of data.

## References

Australian Children’s Education & Care Quality Authority. (2022). NQF annual performance report. <https://www.acecqa.gov.au/resources/research/apr>



For more information visit  
[edresearch.edu.au](http://edresearch.edu.au)

