

Submission to the Productivity Commission Inquiry into the Education Evidence Base

Presented by

The Centre for Research in Early Childhood Group

School of Education

Edith Cowan University

Professor Caroline Barratt-Pugh

Dr Gillian Kirk

Dr Pauline Roberts

Dr Lennie Barblett

Ms Belinda Nelson

Ms Janet Fellowes

Ms Bev Adkin

Dr Marianne Knaus

Ms Amelia Ruscoe

Ms Claire Hall

Ms Christine Lovering

Dr Graeme Gower

Mr John Heyworth

What has the Commission been asked to do?

Scope of the inquiry

Research indicates that there is strong link between early brain development, life trajectory and economics of human capital formation. Thus, human capital has been identified as a key component of economic growth. Heckman (2005) calculates that early investment produces the greatest returns in human capital estimating a return of more than more than \$8 for every \$1 invested. Educational data collection during the last decade has made a substantial contribution to early childhood investment, policy development and service delivery across Australia. However, although national educational data collections such as the AEDC and NAPLAN are significant, they need to be augmented by broadening the scope and context of data collection to include all children from pre-birth onwards and not just those accessing early childhood education and care. The acknowledgement of prior experience is fundamental to quality early childhood education as prior experiences inform pedagogy and practice by ensuring its relevance to children's interests and abilities. Gathering data from families who do not access education and care is fundamental to identifying alternative support mechanisms, particularly for children deemed 'at risk'.

In addition, the evidence base should include data on young people who have left school before completing Year 12. This evidence would contribute valuable data to longitudinal research by providing an insight into long-term outcomes for many children. Data mapping children's journeys into adolescence and beyond would provide invaluable evidence about the effectiveness of early childhood experiences.

A comprehensive approach to a national evidence base would assist Federal and State Governments to determine where to allocate resources to have the maximum effect. This would also enable the development of a framework for economic evaluation of the comparative costs and benefits of early education.

Objectives and frameworks

Determinants of education outcomes

Objectives: It is agreed that the objective of a national education evidence base should be to improve educational outcomes. In early childhood, these outcomes acknowledge the development of the whole child, not just the cognitive child. Therefore, *all* education outcomes are relevant and need to be measured. This necessitates the inclusion of a range of data collection techniques that incorporate both qualitative and quantitative measures. To this end, the evidence base should be contextualised within a child outcomes framework. This broad definition of outcomes provides an opportunity to link with data sets outside the education sector. An additional objective of a national education evidence base should be to inform the development of a National Early Childhood Strategic Research plan - enabling researchers to work across jurisdictions in determining a comprehensive and coherent research strategy. The research agenda and subsequent research findings could guide the early childhood reform agenda and be used as a means of evaluating national and local government initiatives.

Issues of measurement: In terms of methodologies, there is an ongoing debate in early childhood about different ways of conducting research and which types of research are best placed to inform policy and practice. Research agendas, assumptions and objectives underlie the method or paradigm undertaken. Although the need for large nationally based data sets cannot be underestimated the complex and multifaceted nature of children's experiences and contexts which contribute to outcomes and must also be considered – particularly in relation to those outcomes that are difficult to measure. In particular it is important to recognise the capacity of young children as agentic, not only in the co-construction of knowledge, but also as informants contributing to the research process and outcomes. This raises an additional question about the relationship between the researchers and the researched and studies in which participants are both subjects and controllers of knowledge. Real time and longitudinal research which include case studies are ideally placed to elucidate some of the underlying complexities. These studies should form part of the national data base.

Associated costs and benefits

Current costs associated with retrieving data place restrictions on accessibility, compromising the purpose of a national education evidence base. Many early childhood education and care sectors lack sufficient funding to capture the data. It is recommended that the research capacity is enhanced through government funded centres for research in childhood education and development.

Issues and opportunities

Data linkage

Inaccessibility of de-identified data further inhibits effective research. It is suggested that data are collected and stored at a state-level to accommodate the diversity between systems under nationally agreed upon frameworks. A unique state-wide child identifier should be created to enable tracking across time, contexts and outcomes.

Inconsistency of data collection. Several tools have been developed that are implemented nationally and provide some consistency, for example the NQS provides a common language and framework for assessment against seven quality areas. The NQS framework facilitates linkages across the states, while recognising individual differences. However, vast amounts of data are being gathered in some schools and early childhood settings that provide a range of information, but because of the lack of consistency and access for researchers the data use is limited. What and how data is collected needs to be determined Australia wide for consistency in order to measure progress over time and provide robust longitudinal evidence.

Better connections between data sources including individual child data, for example, AEDC, Child Care Subsidies, Family Tax benefits, Medicare, Assessment and Rating, Administration would provide a richer fund of data.

Privacy

Protection of data sources and misuse of data are issues which the commission need to consider in relation to the storage, retrieval and destruction of data. A transparent privacy protection and security policies and practices plan would need to be developed.

Analytical and research capability

Translating the data sets into research findings as a means of informing policy and practice is central to the purpose of the National Education Evidence base. Enabling early childhood educators and policy makers to interpret data and findings while recognising that all research is situated in its social, cultural and historical context in which it is undertaken, is important. Interrogating the data, identifying gaps and underlying assumptions enables informed decisions to be made about how to apply the findings. This point is exemplified in the following example where data sourced from My School are used to penalise 'poor' school performance, or to determine funding allocations in some systems and sectors. However, this data alone does not provide a complete picture of school performance and this incomplete dataset is being used to inform parent judgements about schools.

Universities have an important role to play in creating networks to enhance research capacity and capability. Government funded centres for research in childhood education and development convened across universities in each state could provide a series of seminars / workshops (linked to HDR). These would aim to augment research capacity and capability. In WA, the centre could link to other key early childhood institutions such as the Telethon Kids Institute.

Data capture, processing and management

Build and coordinate existing studies to extend findings across time and determine cost effectiveness. This is particularly relevant to the range of early childhood programs that are being implemented across Australia. Evaluations need to capture the long-term impact of such programs as well as their immediate outcomes. In addition, a consistent approach to the evaluation of new programs and initiatives with an on-going funding commitment would inform program design, implementation and outcomes across Australia.

Continue funding of key data sources, such as the AEDC which provides national information about early childhood development at the time children commence their first year at compulsory school. The National Quality Standard (NQS) is another example of an existing evidence base that provides analysis and information on the state of the early childhood sector service providers, progress of assessment and rating, quality ratings of services and waivers held by services. Building this data set across time will provide information about the implementation and impact of the National Quality Standard.

Replicate well established studies such as the LSAC as a means of extending understanding about the factors associated with broad educational outcomes successful quality and productivity, potentially increasing policy contribution and scope.

Add studies to create new knowledge and add to understanding of education outcomes from different perspectives. In addition pooling data between established and newer studies and international studies enables investigation of global educational determinants. For example, a valuable addition to the current educational data base would include information about key points in a child's life, such as transition from home to childcare settings and care to education.

Identify data gaps to augment data sets and utilise existing data more fully. Gaps in data collection are due to many factors which need to be identified and improved. For example, in Western Australia data collection gaps exist in remote Indigenous communities due in part to inaccessibility of technology and associated funding. In addition, data pertaining to particular cohorts of children is also missing, for example very little is known about the experience and educational outcomes of children who are in foster care.

Data collection from pre-birth using real time and longitudinal research would offer insights into such areas as the intersection between home and school and what constitutes effective education in different settings, and are key in capturing the effect of current practices on later societal outcomes.

Institutions, data governance and prioritising reform

Data governance arrangements that work best

Funding. Universities require funding to maximise data analysis capabilities and build the capacity of early childhood professionals undertaking RHD. Government funded centres for research in childhood education and development would add to both efficacy and efficiency of quality research and translation of the research into practice. Guidelines held by data custodians would ensure the quality and availability of data.

Control and access. An independent body could be appointed to collect, coordinate and manage secure access to the national database. This body would be well positioned to coordinate data across the multiple state agencies that administer a range of state- and federally-funded programs. Regular summaries of data sets and ongoing reporting of measures used could be published on a regular basis.

Ethics. An alignment of ethical procedures would support researchers as current practices may deter researchers because of the complexities of individual ethics applications and time taken to assess when sourced from multiple sectors. Further, the ethical use of data needs to be considered as children have no power over what happens to the data that describes them. Strict codes of ethics about using data that represents the most vulnerable of our society needs to be carefully considered.

Key Points

- Educational data collection during the last decade has made a substantial contribution to early childhood investment, policy development and service delivery across Australia.
- Broaden the scope and context of data collection to include all children from pre-birth onwards and not just those accessing early childhood education and care.
- Improve educational outcomes for the whole child, not just the cognitive child.
- Include a range of data collection techniques that incorporate both qualitative and quantitative measures.
- Due to costs in retrieving data sets it is recommended that government funded centres for research in childhood education and development are set up for this purpose and in creating networks to enhance research capacity and capability.
- Create a unique state-wide child identifier to enable tracking across time, contexts and outcomes.
- What and how data is collected needs to be determined Australia wide for consistency in order to measure progress over time and provide robust longitudinal evidence.

25.5.16

Professor of Research in Early Childhood
School of Education
Centre for Research in Early Childhood Group
Edith Cowan University
Perth 6050
WA