



Developing the national education evidence base

Evidence-based policy development

Over the last twenty years there has been a move away from the traditional basis of policy formation based on theory and ideology, to develop and evaluate policies and programs empirically. The evidence-based approach to policy development has met some resistance, in that some argue that the money that is spent on evaluation is taken away from money that is badly needed for program and service implementation. However, the return on investment for policy and program evaluation can be substantial. In the absence of effective evaluation, many program trials are discontinued after a period of time, within limited learnings accruing. The history of new program implementation shows clearly that evidence of effectiveness is critically important to sustaining investments in programs and services over the longer term, and in refining programs to achieve greater outcomes and more efficient delivery.

Over the last 10-20 years there have been substantial developments in data collection within Education. Flagship programs such as the NAPLAN and the AEDC represent significant investments in data collection that are likely to provide important new insights into the effective delivery of educational services in Australia.

After welfare payments, health services and education services represent the two largest areas of government investment in most jurisdictions. In comparison with the health sector, the education sector has substantially less investment in evidence, data and research. There are significant opportunities to expand the national infrastructure on educational research, and this could be done in ways that improve the efficiency and effectiveness of educational services.

An evidence-based policy framework could usefully be used to guide the development of the national educational evidence base. The decision to establish the NAPLAN system reflected strong government policy interest in improving literacy and numeracy skills. A review of priorities for educational policy development and reform could guide development of the data and evidence base. Data collections could then be developed that would most usefully inform the evaluation of key government priorities.

Early childhood education and care sector

There is now strong and undisputed evidence supporting investment in providing high quality educational services in early childhood and prior to the commencement of formal schooling. PWC have conservatively estimated a \$29billion benefit to Australian GDP by 2050 from investment in high quality early childhood education and care (ECEC). All jurisdictions have implemented major initiatives in ECEC, and this is currently an area of major policy and program development. Based on current trends, the ECEC sector is the area of educational service delivery that is most likely to undergo significant change over the next decade, and also the area where service improvements are likely to produce the largest changes, in terms of benefits for all children in receiving high quality ECEC on human capital development, the specific benefits for children from disadvantaged backgrounds and the opportunities to break the intergenerational cycle of disadvantage, and in terms of workforce participation.

While the case for investment in ECEC has been made, there are important research questions that need to be answered in order to deliver the most effective ECEC services. Much of the evidence supporting investment in ECEC comes from overseas, and in particular from the United States. Studies such as the Perry/HighScope and Abecedarian projects have demonstrated the large and sustained benefits across the life course from the provision of quality early childhood programs. At the time these programs were run, most disadvantaged children in the United States had no access to early childhood programs of any type. Now that pre-school programs are near universal in Australia, and the ECEC sector is expanding substantially, it is important to address more specific questions:

What are the most important program components for ECEC services?

Which children and families benefit most from these programs?

Which children and families are not benefitting fully from currently available services, and what are the barriers to this?

How can we most effectively help disadvantaged families?

Despite the wider availability of ECEC services in Australia over the last decade, substantial gaps persist in educational outcomes for children from disadvantaged backgrounds, including Aboriginal and Torres Strait Islander children, when compared with children from the most advantaged backgrounds.

Gaps in the evidence base

The range of evidence types that are available within the health sector in Australia give some guidance on the types of evidence that could be implemented in the education sector. Australian health research is well developed, and internationally competitive, and is widely regarded as contributing positively to the Australian economy. Health evidence includes:

- a wide range of population-based administrative data sets that cover provision of services across the sector, and outcomes of screening tests. E.g. Episodes of hospital care, Medicare Benefits Schedule and Pharmaceutical Benefits Scheme services, the national immunisation register, the national diabetes services scheme.
- National surveys, such as the Australian Health Survey, the National Aboriginal and Torres Strait Islander Health Survey, the National Survey of Mental Health and Wellbeing initiative, LSAC and LSIC
- Data linkage systems that combine data from these administrative data sets and from survey data sources
- Empirical results from many experimental studies. These include the requirement to demonstrate efficacy, safety and cost effectiveness of new treatments to be added to the MBS and PBS schedules, and studies to test service delivery changes, and engagement models.

Looking at the current educational evidence base there are substantial gaps that could be filled. These include:

1. Improving access to existing administrative data. NAPLAN data is now available at a national level. There is work underway towards a national attendance database. All school jurisdictions maintain information on school enrolments, but there is no consistency between jurisdictions in what information is collected, and how it is collected and stored, and this information is not generally available for research. Similarly most jurisdictions and sectors maintain information on behavioural outcomes, such as behaviour management plans and suspensions, and most jurisdictions have more extensive information on student participation and academic outcomes than is contained within the NAPLAN. Again these are not consistently collected across jurisdictions and sectors and not generally available for research.

2. Developing governance arrangements and systems that would facilitate linkage of administrative data. At present, most identified data sets are held at either the jurisdiction and service level or the school level and it is cumbersome if not impossible to coordinate linkage projects across the many data custodians involved.

3. Greater use of survey data to supplement administrative collections. Whole population data collections, such as the NAPLAN and AEDC, are expensive to conduct and of necessity are limited in the breadth of information that they can collect. It is not always necessary to have data on the full population to undertake valuable research. Surveys and testing programs administered to samples, some of which may be specifically directed to high risk or disadvantaged groups, can significantly increase the breadth of information collected.

These could include testing in domains other than literacy and numeracy, information on connectedness, engagement and participation, contextual information that can be key to understanding policy reach and directing services where they are most needed, such as family and personal circumstances, and wellbeing. The LSAC and LSIC do have coverage of some educational content, and some valuable research has been conducted using these studies. However, neither study is primarily focussed on education and as a result study design and content are not the most efficient and comprehensive for informing educational policy development.

4. Address specific gaps in data collection related to areas of policy significance - particularly in the area of Early Childhood Education and Care. As there are many new initiatives in the ECEC area, experimental studies, where specific programs are evaluated to test their reach, penetration, barriers to participation, and their cognitive and social outcomes, would be extremely valuable in advancing the policy agenda in this area. An evidence-based policy approach would include a properly funded evaluation component to the development and roll-out of all new programs and initiatives. If this is done in with an overall design approach of continuous improvement, rather than merely testing if programs are effective or not, it would be possible to identify ways to improve program delivery and program reach in a cost-effective manner.

5. The current market model of Early Childhood Education and Care provision is dependent on services providers 'goodwill' and on parents' income and ability to 'shop around'. An alternative approach favoured by PWC recognises that ECEC is a public service, as such it requires a professional workforce and robust inspection. Schools for example are staffed by professionals who earn professional wages. How services are managed needs reform. This is evident in the current Quality Rating System results of Centre based childcare services. The results indicate that many services do not meet minimum standards. Low pay and poor working conditions for the staff lead to a high turnover rate, and there is little chance of graduate recruitment and retention in the sector.

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