

Executive summary

Our education system is not serving all learners well. One in four children enter school developmentally vulnerable, whilst one in eight young people will never complete Year 12. The future is uncertain, but we know that young people already need higher level cognitive and personal skills to compete in the modern workplace, and to thrive as citizens. Our education system should equip all children and young people with the knowledge, skills and capabilities to live productive lives.

Achieving excellence for all students in Australia's education system is a complex challenge in which schools play a key but not exclusive role. Mitchell Institute has focussed this submission on priority actions to transform Australia's education system to secure educational success for all students. These priority actions are:

1. Improve the quality of early education and care services, and expand access to preschool so that all children can participate in quality preschool programs for two years before starting school. All children benefit from high quality early education, but it is particularly beneficial for those from disadvantaged backgrounds and for the one in four children who are developmentally vulnerable.
2. Build the evidence base, teaching support, and understanding around capabilities, engagement and learning growth. This includes tools for teachers and families to better identify the progress children are making and where additional support is needed.
3. Support the creation of a national education evidence and data institute to generate, evaluate and disseminate research on established and emerging education programs and practices with transformative potential. This includes developing a unique student identifier (USI) to track students as they progress through early education, schooling and further study or training, and link this with other data sets to ensure we can understand the impacts interventions have on a variety of student cohorts.

Responses to Review Questions

What should educational success look like, and how should it be measured?

Currently one quarter of children and young people are failing to meet important educational milestones. One in eight of those missing out at ages 19 and 24 are likely to remain disengaged for most of their working lives.

A successful education system would see all learners supported to transition from pre-school to school, to master literacy, numeracy and other key capabilities then smoothly transition to further education, training or employment, and become healthy,

active citizens. Indeed, the Melbourne Declaration lay out this goal of "successful learners, confident and creative individuals and active and informed citizens" (MCEETYA 2008, p.8).

However, we are not achieving these goals. *Educational Opportunity in Australia* (Lamb et al 2015) found that:

- Only 78 per cent of children are developmentally on track in all AEDC domains on entry to school
- Only 71.6 per cent of Year 7 students meet or exceed achievement benchmarks in academic skills
- Only 74 per cent of students attain a Year 12 certificate or equivalent by age 19
- Only 73.5 per cent of 24 year olds are engaged fully in employment, education or training.

The cost of this is stark. Recent data estimates that the cost of early school leaving is \$12.6 billion over a lifetime for one cohort of early school leavers (Lamb, Huo 2017).

Educational success should be guided by what our aspirations are for our children and young people. Literacy and numeracy are part of the equation but we need broader measures of success to shift outcomes for all children and young people.

The need for learners to be capable – to be able to apply their knowledge and skills, or have dispositions that help them succeed in school and life, is increasingly becoming accepted across the world (Lucas, 2017). Capabilities (Literacy; Numeracy; Information and communication technology (ICT) capability; Critical and creative thinking; Personal and social capability; Ethical understanding and Intercultural understanding) are included in the Australian Curriculum. However teachers and schools are not always supported to cultivate them, and system drivers such as NAPLAN and ATAR can narrow what is viewed as success. Ease of measurement should not determine what is important.

Capabilities are developed from the early years – both in formal and home learning environments. They can be cultivated within and outside of the school environments, but some children and young people have less access to extracurricular activities to build these capabilities. Further, emerging evidence suggests that focusing on capabilities such as critical and creative thinking can help lift results in other subjects, with sub skills such as questioning and looking for solutions vital for performance in numeracy (Lucas, 2017).

A growing, global evidence base highlights the importance, power and value of capabilities in succeeding in education and the workforce (Kautz et al 2014; Levin 2012; OECD 2016; Duckworth & Seligman, 2005; Heckman 2008; Schleicher 2016; FYA 2016). Worryingly, data from PISA indicates that Australian 15 year olds struggle more than their peers in other advanced countries to critically evaluate and apply information to solve “real world” problems (Thomson et al 2017). This is of particular concern, as economic transformations, including a highly-competitive, technology-rich globalised economy have seen the decline of ‘routine jobs’ and growth in ‘non-routine’ industries requiring innovation, creativity, problem-solving, relationships and responsiveness to changing circumstances. The business community echoes the need for capabilities – for example the Business Council of Australia’s *Work Ready Guide* calls for values, behaviours and skills including an ability to co-operate and collaborate, a global awareness and skills in problem solving and critical analysis as minimum skills when seeking work.

Education success should be sought for all children and young people, regardless of their background. School students are not always met at their points of need with learning environments that support and extend their learning. Students from low socioeconomic households, rural and remote locations, and Aboriginal and Torres Strait Islander students are heavily over-represented among those failing to meet these key educational milestones. Evidence indicates that these equity gaps are growing over time (McMorrow 2009; Connors & McMorrow 2015; Bonnor & Shepherd 2016) and as students progress through school, with bright students in disadvantaged schools losing the most ground (Goss et al 2017).

Education success means ensuring every child and young person achieves – our lower performers and our higher performers should be challenged to be their best. Data from the Program for International Student Assessment (PISA) indicates that Australia's proportion of high achievers has declined steadily between 2000 and 2015 (Thomson et al 2017). Data from the National Assessment Program in Literacy and Numeracy (NAPLAN) likewise show decreasing proportions of high achieving students across a range of subject areas and year levels (ACARA 2017).

How should educational success be measured?

Educational success should be measured by the ability of schools, and the broader education system, to meet students at their points of need, and support them to develop the skills and capabilities they need to succeed in school and achieve their full potential in the world after school.

Measurement should be used to provide feedback to inform policy, planning and practice, as much as to monitor and report on outcomes. Tools and resources are needed to serve different purposes at a variety of levels – classroom, school, community, state and national levels.

NAPLAN is useful but needs to have a quicker turn around, and provide parents with indicators of student growth to move the measure from one that ranks schools, to one that supports schools to improve learner development.

Other tools can also support policy interventions to deliver education success. For example, the Australian Early Development Census is conducted to provide a snapshot of how communities are faring with regards to children's development. It provides an indicator of where children, at a population level, are developmentally vulnerable to enable communities, including schools, to provide services and support to address the needs of children and families. It is not a ranking system – rather, it gives valuable information for service and provision planning. A similar measure, such as the Middle Years Index, could provide further population level insights to help schools and communities understand how children's development is progressing and target interventions accordingly.

As a nation it is important that we can identify who is successfully making their way through the education system, and who is falling behind. *Educational Opportunity for all 2015* provided the first analysis of who is achieving education milestones across the system. Despite the data being two years old and in need of an update, it remains the key reference for policy makers and researchers in the absence of other tools to identify how children and young people fare across the system. It is imperative that

data of this type continues to be collated and published to enable Australia to determine who is succeeding and who is missing out across their educational journey.

Tools for tracking individuals through the education system both within and across jurisdictions would inform policy and program development and measurement. Policymakers and educators lack the measurements and data needed to monitor and boost progress against educational goals, and to critically appraise which programs and interventions work best for which students and the circumstances in which they work best. Mitchell Institute identified the most critical gaps in its submission to the Productivity Commission Inquiry on building the evidence base (Fox 2016). They are:

- Our inability to track students throughout their educational journeys. Understanding these journeys from early education through primary and secondary school and beyond is crucial for the quarter of young people missing key educational milestones and for reforming our education system to enable and sustain success
- Insufficient information about non-academic drivers and outcomes. These are necessary for a deeper understanding of social and structural determinants of educational outcomes and to ensure policy and practice give equal priority to the broader range of capabilities and skills that young people need to succeed in and after school.

Mitchell Institute's priority recommendations to government to improve education measurement and data:

- Develop nationally-consistent wellbeing and engagement measures in the middle years (as students transition from primary to secondary school).
- Co-develop with educators professional learning materials by domain to assist teaching, cultivation and tracking of capabilities at a school level.
- Develop tools for teachers, and accessible information for parents using NAPLAN data that emphasises how students are progressing in their learning over time (learning growth) to provide more meaningful information to parents.
- Introduce unique student identifiers (USIs) to track students as they pass through different institutions, jurisdictions and stages of the education system (from preschool to school to TAFE or university, for example) and work towards linking this database with health and social sector databases.

What can we do to improve and how can we sustain improvement over time?

Early years

One key area to drive improvement is through ensuring more children start school ready to learn. We know that nearly one in four students start school behind, and half of these children will remain behind (Lamb 2015). Evidence also shows that schools have up until around the age of eight to remedy this early disadvantage or the challenge becomes much more difficult.

If Australia focusses only on school-based interventions, we miss out on the greatest opportunity to improve educational achievement and equity. Extensive evidence indicates that all children benefit from participation in high quality early education, and that the greatest benefits accrue to children who experience higher levels of disadvantage (OECD 2017; O'Connell et al 2016; Fox & Geddes 2016). Data from the Australian Early Development Census shows that children who attended preschool were half as likely to be assessed as educationally vulnerable in their first year of school (Australian Government 2016). Research by the Melbourne Institute found that students with well-qualified preschool teachers performed better in Year 3 NAPLAN than children with no preschool, or preschool programs delivered by less-qualified or inappropriately qualified educators (Warren & Haisken-

DeNew 2013). The international and Australian evidence base linking quality preschool and early education and care, and better performance in school, continues to grow. Raising quality is complex and multi-faceted, but major progress has been made and can further be built upon (Torii, Fox and Cloney 2017; O’Connell et al 2016).

Mitchell Institute’s priority recommendations for government on starting early for school success:

- Invest in two years of quality preschool for all children, with secure, ongoing funding for preschool education rather than one or two year funding agreements that inhibit long-term planning by services, educators and families.
- Align early childhood funding mechanisms to provide greater support to children with the greatest need.
- Recognise that quality teaching matters as much in early childhood settings as it does in schools, and support workforce development for early childhood educators.

Prioritise the cultivation, testing, reporting and understanding of capabilities alongside core curriculum

Students need a range of capabilities in addition to strong literacy and numeracy to succeed in school and after school. This is particularly important given economic and technical transformations that have seen decline in routine jobs and growth in industries requiring innovation, creativity, problem-solving, relationships and responsiveness. Mitchell Institute believes capabilities can bridge the academic and vocational divide, extend high and low performing students, and equip young people for the challenges and opportunities they will face over their careers in dynamic and globalised economies.

Although capabilities have been included in policy frameworks, curriculum documents and training packages in Australia and internationally for over a decade— teaching and assessing of capabilities is still in its formative phases. Recent efforts in Victoria on teaching and assessing critical and creative thinking capabilities as part of the Victorian Curriculum appears promising and has been reported as both challenging and rewarding – teachers are noticing increased student capacity in these capabilities due to explicit focus on them. (Lucas 2017, Torii & O’Connell 2017).

More work is needed to build parent, educator and community acceptance of capabilities as a core requirement for future student success. Research, tools and support are needed to assist educators to identify how to cultivate and track capabilities as part of the school curriculum. Educator resources, such as sample lesson plans which assist teachers to deliver the curriculum, do not currently cover capabilities. Whilst some schools are working to develop their own this is dependent on time, skills and resources. A bank of products and assessments could assist more schools to focus on integrating capabilities into their day to day practice. (Torii & O’Connell 2017).

Mitchell Institute’s priority recommendations to extend the development of students’ capabilities:

- Support ACARA to co-develop educator resources to highlight how and where capabilities can be integrated, cultivated and assessed across the curriculum

- Research and report on how and where improving student capabilities (or subsets of capabilities such as questioning) improves student performance in subject areas

What institutional or governance arrangements could be put in place to ensure ongoing identification, sharing and implementation of evidence based good practice to grow and sustain improved student outcomes over time?

Constitutional responsibility for delivering education lies with the States and Territories. However, the Australian Government plays an important leadership and funding role, which can be harnessed to better articulate the broader suite of outcomes sought from the education system, and ensure that data is collected to track progress towards these goals. National bodies such as ACARA, AITSL and ACECQA also have key roles to play by providing tools and resources to support all educators to implement the Australian curriculum and supporting ongoing quality improvement, including building teacher and educator capacity across the system.

The evidence base in education is not complete nor easy to navigate. Much focus has been placed on the need for teachers to also be learners and researchers, but the dispersed and inaccessible nature of education evidence makes this difficult. Much evidence is behind academic paywalls, dated, or not written with teachers as end users in mind. There is a need to support creation of a national evidence base which could procure, translate and hold research relevant for educators across the education system, as well as hold system level data.

The creation of national education evidence and data institute (NEEDI) to generate, evaluate, translate and disseminate research on educational programs and practices, and inform teaching, school resource and system decisions would support this aim.

A NEEDI could:

- Coordinate the funding and independent assessment of priority research on established and emerging education practices, and of scaling and implementation models, to enable “smart” transfer of proven programs into different settings.
- Translate and disseminate these research and evaluations in timely fashion and most effective formats. The fact sheets and tool kits developed for teachers by the Education Endowment Foundation are useful examples.
- House and coordinate data from a Unique Student Identifier, and support data linkage with other data sets.

Founding principles to maximise impact of a NEEDI:

- Funded by Commonwealth and education systems, with funding in an endowment so it can focus on core business without concerns about abolition or funding cuts by government.
- Whether a NEEDI is an independent agency or not is less important than the quality of its work and buy-in from systems and professions.

Mitchell Institute believes the Commonwealth can play a vital role enabling and sustaining excellence in Australian schools by:

- Funding priority research by supporting the creation of a new education evidence institute

- Driving data linkage from across the education system (early childhood education and care, schooling, vocational and tertiary). This could be a function of the NEEDI, but the Commonwealth has a critical enabling role to play.
- Leading the introduction of unique student identifiers (USIs)
- Requiring transparency from systems on how they allocate funding, to enable comparison of effects of different allocation models and processes, to then inform system resource decisions.

Australia's future success depends on the ability of our education system as a whole to support every child and young person to learn and thrive. Our vision for success "successful learners, confident and creative individuals and active and informed citizens" is as true as per a decade ago – the challenge remains to support all educators to achieve this.