



## Public submission made to the Review to Achieve Educational Excellence in Australian Schools

Submitter: Department of Educational Studies, Macquarie University  
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### Summary

Submission from the Department of Educational Studies, Macquarie University

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The Department of Educational Studies at Macquarie University strongly endorses the need to reframe what counts as educational success and the ways in which excellence can be achieved in the Australian educational system. Our submission is framed around the need for evidence-based practice and a focus on developing reflexive, evaluative and collaborative capabilities for a changing world. We strongly recommend that greater resources be directed to early childhood education and improving digital literacies for students and teachers. In our view, it is essential to establish infrastructure that engages teachers in problem-based professional learning and postgraduate qualifications, with easier access to academic research.

### Main submission

1. What should educational success for Australian students and schools look like?

What capabilities, skills and knowledge should students learn at school to prepare them for the future?

Literacy in the 21st Century is the “ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts” (UNESCO Education Sector, 2004, p.13). The fastest growing professions involve greater than average skills in reading and writing (Parrila & Stack-Cutler, 2011).

To prepare them for the future, students need:

Strong foundational capabilities across the literacy modes of speaking and listening, reading and viewing, and writing and representing. These capabilities allow students to make meaning using traditional and contemporary textual forms. For reading and writing, these include:

- code-related skills (a constrained but important skill set that includes phonemic awareness, phonics, and fluency, and requires explicit and systematic instruction), and
- comprehension-related skills (an unconstrained set of skills that include oral language and vocabulary as well as background knowledge, support both literal and inferential understanding, and develop slowly and incrementally

from birth, in interaction with other peoples in language-and-literacy-rich environments).

Functional literacy. To be fully participating citizens, school leavers will require a breadth and depth of functional literacy skills. These include:

- being able to source, interpret, analyse and synthesise information
- the capacity to read and communicate with clarity using written, spoken, and a range of emerging multi-modal resources (Parrila & Stack-Cutler, 2011; UNESCO, 2012).
- Critical capabilities for reflecting upon language and other communication modes.

Developing and demonstrating these skills requires knowledge about language and other modes and skills.

- The capacity to innovate, adapt and employ known literacy practices in various ways and for a diversity of purposes that may not be fully anticipated at the present time.

Information and Communication Technology (ICT)

Students are growing up in an increasingly digitally-networked world, and an ability to leverage the collaborative, communicative and interactive capacities of this world are going to be essential skills for meeting future work and personal goals (Rychen and Salganik, 2003).

To achieve this, students need grounding in:

1. basic technical skills, such as those required for using computer and web-based applications, and
2. dispositional and cognitive capabilities to use these ethically and productively to solve problems and meet emerging needs and opportunities, both individually and collectively, in networked environments.

We note the value of fostering general thinking and problem-solving capabilities by introducing young students to basic coding tasks in early years education. Using the computational thinking processes involved in scripting basic code is valuable in a more general sense, because the skills, once learnt, can be applied to solving problems or developing solutions beyond the code-building activity itself (Falloon, 2016).

How should school quality and educational success be measured?

We value the development of children as confident, capable, creative and curious communicators. In our view, there is a pressing need in the educational community to develop understandings of 'excellence' and 'success' that go beyond NAPLAN and

PISA scores and encompass not only 'student performance' but also student wellbeing and capacity for self-directed learning and critical reflection in relation to a range of local and global contexts and issues. In the process, the Review needs to answer questions such as 'what sort of people do schools help make' and 'what skills relevant to 21C living will our students need to master?' Once leaders can identify these things, they can describe success and excellence and identify where improvement is needed.

The nature of assessment guides education and instruction (Berliner, 2011; Klenowski, 2017; O'Mara, 2014) and, to meet the needs of the next generation, assessment should be less about the content that is learned and more about the learning of skills that establish the foundations for life-long learning.

1. There needs to be a shift away from test scores as the predominant measure of educational success. This emphasis has been shaped by the current standardised testing and accountability and focussed context (Darling-Hammond, 2011; Lingard, Thomson & Sella, 2015). Assessment should instead be used to nurture and gauge learning and growth. Growth oriented assessment of this type aspires to developing tasks that are increasingly sophisticated, involve deep learning and critical thinking and nurture reflective learners. Importantly they take place in an atmosphere of trust and within school, system and societal cultures that support learning (Fullan & Hargreaves, 2015), emphasise collaboration and value teacher professional judgement.
2. Measures of student learning must include multiple sources of data and evidence gathered in authentic classroom contexts rather than during high-stakes testing (Fehring & Nykand, 2012; Fullan & Hargreaves, 2015; Klenowski, 2016; Thomson, 2016).
3. Measures of success in language and literacy learning should include both code-related and comprehension-related skills in the first years of school, and extend beyond foundational skills to identify: students' motivation, confidence and competencies in literacy across the school years and across different curriculum areas; students' potential to communicate in innovative and imaginative ways, and teachers' and schools' ability to foster students' curiosity and creativity in reading, interpreting and creating a broad range of texts.
4. Investment in teacher professional learning for teachers and and sector leadership groups is needed to develop informed, collaborative practices so that data obtained from both school-based and national standardised test such as NAPLAN can be used more effectively. The focus of the professional learning should be on strategies to: improve learning outcomes for students

across the full ability spectrum; arrest and reverse the narrowing of curriculum and pedagogy that is occurring in response to high stakes testing; implement more effective formative and summative assessment; and sustain creative, engaging pedagogy.

2. What can we do to improve and how can we support ongoing improvement over time?

#### Evidence-based practice

Key to the effective and efficient use of funds is a continued commitment to implementation of evidence-based practices in classrooms. As in many other professions, there is a recognised research-to-practice gap in education (Everett, Luera, & Otto, 2008). Beyond rhetoric, evidence of penetration of the concept of evidence-based practice into federal and state educational policy remains arguably limited (Stephenson, Carter, & O'Neill, 2013). In addition, we note the evidence that teachers are not necessarily able to reliably identify practices with a strong evidence base. For example, research with special education teachers in Australia to determine the level of use of evidence-based instructional strategies found that some evidence-based practices were used regularly, but many practices that have been shown to be ineffective were also used weekly or more by about half the teachers surveyed (Carter, Stephenson, & Strnadová, 2011). Other Australian research shows that schools may employ practices that lack supporting research evidence (Carter & Stephenson, 2012; Stephenson, 2009; Stephenson, Carter, & Wheldall, 2007).

Critical to the further development of an evidence-based approach to education is the provision of good quality and reliable information to support the decision-making of teachers.

#### Inclusive practice for diverse students

We note that concern exists about whether the support that teachers receive for inclusion is adequate (Glazzard, 2011). Although professional development remains a prominent approach to support and prepare in-service teachers for inclusive education, many teachers have expressed apprehension in regards to their ability to teach inclusively diverse classes (Avramidis & Kalyva, 2007; Forlin, Keen & Barrett, 2008) and the practical implementation of inclusion in classrooms.

We argue that adequate support and resources are needed for truly inclusive classrooms. Teachers need specialist support in ascertaining diverse needs, and time and resources (including problem-based professional learning) to enable them to respond to those needs.

#### Focused Aboriginal Education Strategies

- 1) Funds under the Aboriginal equity loading provided to schools (Resource Allocation Model) should be directly spent on improving learning outcomes for Aboriginal students, and not on the general Aboriginal education program at the school, nor on the general delivery of school curriculum.
- 2) Whilst funding has been devolved to schools, principals in the main often do not know how to effectively spend that money in order to improve Aboriginal student outcomes. School principals require explicit guidelines on how to best deploy funds for the specific benefit of Aboriginal student outcomes.
- 3) Years 7 and 9 literacy programs. NAPLAN results are comparatively lowest for Aboriginal students in Year 9 throughout Australia. Explicit guidelines around the most effective literacy programs available for Aboriginal students who are not attaining minimum standards in Years 7 and 9 need to be provided.

#### Broader focus on Literacy and numeracy

We recommend the following improvements:

- The adoption of a broader understanding of literacy assessment than that currently evinced by the National Assessment Program – Literacy and Numeracy.
- A stronger focus on oral language and comprehension-related literacy practices from the first year of school (Dickinson, 2011; Dickinson, Golinkoff & Hirsh-Pasek, 2010; Murnane, Sawhill & Snow, 2012), as an effort to bridge the gap from 'learning to read' to 'reading to learn' (Konza, Michael, & Fried, 2010).
- improved school funding for EAL/D learners, in the context of one in five Australian children speaking a language other than English at home (Commonwealth of Australia, 2016), .
- Teacher professional learning about grammar and the contextualised teaching of grammar. Recent robust research in the UK by Myhill, Jones, Lines and Watson (2012) shows that embedded grammar teaching improves writing achievement. The strength of teachers' linguistic content knowledge (i.e. knowledge of grammar) positively impacts the effectiveness of the teaching of it (Myhill et al., 2012).
- Evidence about the prevalence of cognitive disorders in mathematics such as dyscalculia (see Ansari & Karmiloff-Smith, 2002) and teacher professional development on spatial reasoning (Mulligan, Woolcott, Mitchelmore & Davis, 2017) and numerical cognition.

## Strengthening the use of information and Communication Technology (ICT)

- The capacity of digital technology to support alternative ways of delivering curriculum is an underexplored area worthy of investigation. Approaches such as the ‘flipped classroom’, greater use of education-specific online networks (eg., Edmodo) and collaborative toolsets (eg., Google Classroom) have the potential to offer learning advantages by freeing up face-to-face class time so concepts can be explored in greater depth, and to build networked communities of learners (Al-Zahrani, 2015).
- Innovations such as virtual and augmented reality have the potential to bring otherwise unattainable experiences to learners.

## Significance of Early Childhood Education

Outcomes of school students rest, in part, on what is achieved in early childhood, so we found it disappointing that this Review has explicitly set aside early childhood education from its scope. Arguments for including Early Childhood as a system enabler are outlined below.

To harness the potentialities of brain development during early childhood, informed by neuroscience research (see Shonkoff & Phillips, 2000), governments around the world have been increasing their funding of Early Childhood Education (OECD 2017). Based on cost-benefit analysis studies conducted by Nobel laureate economists such as James Heckman (2000), investing in Early Childhood Education is also perceived as one of the best antidotes against family disadvantage (OECD 2017).

Australia’s ability to address issues of transition to school requires government recognition of, and support of, achieving collaboration between the early childhood education and school education sectors. In order to effect changes in education upstream, we believe that it is essential to pay attention to transition matters downstream. Any reform of Australia’s systems of education must include developments from birth, and must include stakeholders involved in the early childhood sector.

## Teacher preparation and retention

Student outcomes (including student wellbeing and capacity for self-directed learning and critical reflection) also rely on attracting the best candidates into teacher training, and then retaining them as teachers. In our opinion, the Review must look at mechanisms for lifting the profile of teaching as a profession to attract high quality candidates. Part of raising the status of teaching is placing more value on different types of research in schools, including teachers researching their practice as a collective group, and access to a curated evidence base from the latest academic research. Teachers should have more incentives to undertake research and postgraduate degrees, and they should have professional learning time built into

their timetables. Teacher salaries should also be competitive with other high status professions.

#### Attributes of high performance schools

Measures are needed to ensure schools are dynamic, focused organisations that retain quality teachers (Darling-Hammond, 2017; Burns & McIntyre, 2017).

A priority to achieve this goal is high-impact professional development and collaborative practice. A participative, reflective PD model involving professional learning communities and networks is desirable. Research evidence over several decades has linked student outcomes with opportunities to learn collaboratively amongst school staff. We note the body of evidence linking strong connections between social climate (and particularly staff connectivity around learning) within a school and performance improvement (see Finnigan & Daly, 2012; Mintrop & Trujillo, 2005; O'Day, 2004). The emphasis needs to change from 'individual professional learning that contributes to improved student learning outcomes' [dec.nsw.gov.au] to developing social climates within schools that support staff learning and change. These must, in turn, focus on improving student performance, student wellbeing and students' capacity for self-directed learning and critical reflection in relation to a range of local and global contexts and issues.

3. Are there barriers to implementing these improvements? If yes, what are they and how could these be overcome?

#### Socio-economic disadvantage

This represents an urgent, complex and multi-generational challenge that requires investment in additional literacy research and education policy developments that include the sustained implementation of a funding model that addresses equity and provides the financial resources to cater effectively for all student needs.

Australian evidence shows that a proportion of children who enter school have not acquired foundational learning capabilities that they need in order to achieve academic success (Australian DET, 2016). Australia's education system could be more effective in overcoming a child's prior disadvantage, particularly through increased investment in early childhood education (Yazejian, Bryant, Freel, Burchinal & the Educare Learning Network Investigative Team, 2015).

#### Quality of Early Childhood Education

In Australia, the longitudinal E4Kids study is demonstrating that the quality of children's pre-school education experience has a strong positive effect on children's subsequent academic achievements in the first years of school (Melbourne Graduate School of Education, 2016). It also disturbingly demonstrates that many early childhood centres provide relatively low quality academic support for young children, and that the quality of instructional support was particularly significant for



children from vulnerable backgrounds. In the US, two large scale longitudinal studies have demonstrated this achievement gap can successfully be addressed in children from low income backgrounds almost totally when children commence their attendance before age 2 (Yazejian, et al., 2015; Yazejian et al., 2017).

Progress in Australia is currently hampered by the separation of the early childhood education sector from that of formal schooling (as evidenced by the scope of this report). That early childhood education is often framed as a productivity intervention rather than an educational one (Degotardi & Cheeseman, 2014) further exacerbates this separation and obstructs evidence-based calls for increased attention to be placed on enhancing quality in early years centres. The evidence that high quality early childhood education provides a foundation for academic success can therefore no longer be ignored.

#### Impact of regulatory framework on curriculum and pedagogy

The use of standardised tests as the definitive measure of success poses a potential barrier to effective implementation of the Australian National Curriculum. Designed to inform the assessment of the curriculum and provide feedback on student performance, tests are becoming the curriculum and the dominant influence on practice in Australian schools (Klenowski, 2017).

Curriculum, syllabi and assessment designs need to be reconsidered to make sure they best-support the type of capabilities required of students entering a rapidly changing and dynamic work environment, where abilities such as solving ill-structured problems, synthesising multiple sources of information, or collaborating in teams, are seen as essential competencies.

The regulatory agenda in ITE for the past 30 years has focused on content prescription, subject specialization and personal skills and characteristics of pre-service teachers. Multiple reforms in these areas have not addressed the issue of most concern for graduating teachers: preparedness to adapt teaching for the changing realities of diverse student populations (Rowan, Mayer, Kline, Kostogriz, & Walker-Gibbs, 2015). The prescription and standardization of teacher education programs needs to make room for a curriculum that encourages analytical thinking, adaptable and creative teaching approaches, and innovative solutions to address the achievement gap for our most disadvantaged students.

References available on request