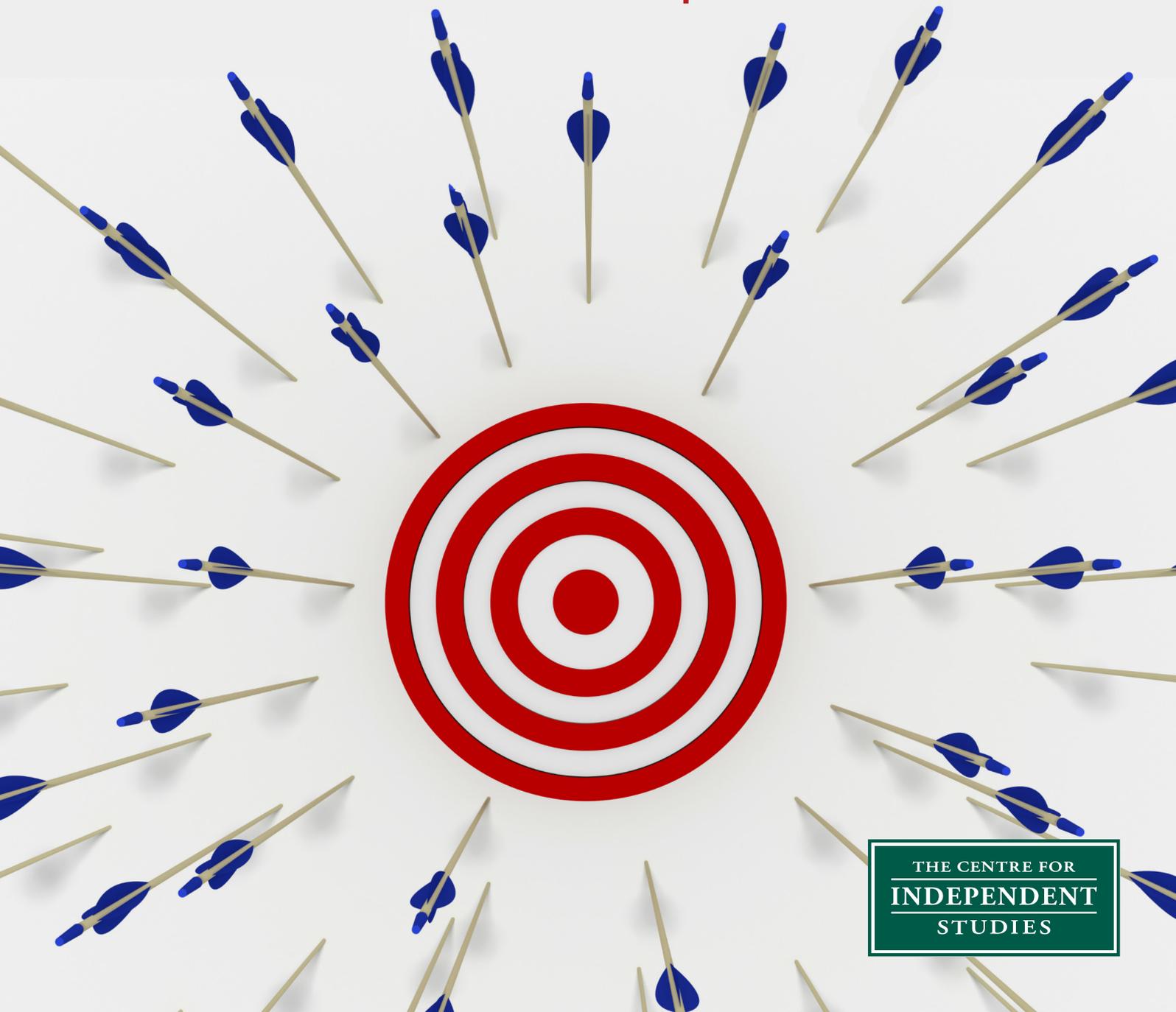


What the Gonski 2 Review got wrong

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POLICY Paper 6

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Introduction

In 2010, the Labor federal government commissioned David Gonski to review funding arrangements for schools and provide advice on a new transparent and consistent system for all states and sectors. It was hoped this would end the persistent divisive public and political debates about school funding.

The first 'Gonski report' published in 2012 was generally well-received. But the resultant funding model — devised by the federal government after months of negotiations with state and territory governments and non-government school authorities — was neither transparent nor consistent, and required significant annual increases in the federal education budget well into the future.¹

When a Liberal federal government was elected in 2013, the funding model was still under heated debate, which has not abated since. The current model has been modified to reduce the rate of growth in expenditure (although still increasing to all sectors annually) while attempting to maintain consistency; even if transparency has still not been achieved.

In May 2017, the federal government announced it had commissioned David Gonski to chair another panel, this time to review educational evidence and provide advice on how additional expenditure on school education over the next decade should be spent to improve student outcomes.

The 'Gonski 2.0 report' was released at the end of April 2018. Federal education minister Simon Birmingham described the report as an "outstanding blueprint for change" and the government endorsed in principle all 23 of its recommendations.

However, while some stakeholders welcomed the overall thrust of the report, the recommendations have attracted significant skepticism and criticism from a range of people and organisations.

This policy paper is not a point-by-point critique of the Gonski 2.0 report ('the Review'). It is rather an analysis of some of the key recommendations, and an appraisal of the Review's fulfilment of the Terms of Reference.

Key recommendations of the Gonski Review

The most significant and far-reaching recommendations in the Review relate to developing general capabilities, focusing on student growth through a new online continuous assessment tool, and establishing an independent national education research and evidence institute.

*Recommendation 7: Strengthen the development of the general capabilities, and raise their status within curriculum delivery, by using learning progressions to support clear and structured approaches to their teaching, assessment, reporting and integration with learning areas.*²

The Review's call for schools to embrace and impart what are often referred to as '21st century skills' or 'general capabilities' is a common refrain. It is based on the idea that schools must be 'future-focused' and prepare students to be successful in an as yet undefined employment market.

According to the Review: "General capabilities need to be at the core of our curriculum and teaching practice."³

The general capabilities in the Australian curriculum are: literacy; numeracy; ICT capability; critical and creative thinking; personal and social capability; intercultural understanding; and ethical understanding.

Acknowledging the complexity of embedding general capabilities into the subject-based learning areas, and concerned that they may be "buried in the delivery of content-based learning," the Review proposes "developing the general capabilities into learning progressions that will provide a detailed picture of students' increasing proficiency."⁴

*Recommendation 1: Embed a focus on individual student achievement through continuous learning progress in the policies and practices of all schools and systems, with the expectation that each student should achieve at least one year's growth throughout each year of schooling.*⁵

Recommendation 11: Develop a new online and on demand student learning assessment tool

*based on the Australian Curriculum learning progressions.*⁶

The title of the Review — *Through Growth to Achievement* — indicates the importance placed by the panel on ensuring growth in student learning. Thinking about growth in learning, as opposed to absolute measures of achievement, is an important distinction.

The Review is critical of what it perceives as the current 'lock step' movement of students through the curriculum; and acknowledges the wide variation in student ability in each classroom and the difficulty of catering for this variation in classroom teaching. This variation within classes and year levels is not a new challenge for schools. However, being able to quantify it is relatively recent, due to data from standardised tests like NAPLAN.

The recommendation of an online and on-demand student learning assessment tool has attracted strong interest since the Review's release. The Review suggests this tool would be used by teachers to 'tailor' their teaching practices at both the class and the individual student level, creating a personalised learning profile for each student.

*Recommendation 23: Establish an independent institution to coordinate the strategic development of a national research and evidence base through the sourcing and generating of research, and the synthesising and promotion of educational evidence that can be easily accessed and implemented to improve student outcomes.*⁷

The recommendation to establish a national education research and evidence institute is likely to be implemented, although the Coalition federal government has not yet made a specific announcement or funding commitment.⁸ The Australian Labor Party announced its support for such a venture ahead of the publication of the Review, committing funding of \$280 million over 10 years if elected to federal government.⁹

Critical analysis of the key recommendations

Teaching and assessment of ‘general capabilities’

There are two dangers in the Review’s recommendations on the teaching and assessment of general capabilities. One is that it will authorise and promulgate the misguided notion that general capabilities are independent of knowledge of facts and concepts — including the fallacy that ‘learning how to learn’ is the ultimate goal of school education. The other is that the proposed policies and practices overshoot the existing evidence base, and therefore risk wasting valuable time and resources — not least the time of students whose education is at stake.

There is little doubt the general capabilities listed in the Australian curriculum are valuable for the world of work and for life more broadly. The questions for educators are: whether they are really generic skills that can be conceptually sequenced on developmental progressions; and if they can be taught and assessed separate from content knowledge. These fundamental questions were not addressed in the Review, even though the research literature is well-known.

Cognitive science research has investigated the idea that not everything that is learnable is teachable in a systematic way.¹⁰ So, while children can learn to be critical thinkers, for example — and there has been some progress in assessing critical thinking ability — it is not yet clear how it can be taught effectively.¹¹ Similarly, it is possible to define creativity; the unresolved issue is how creativity can intentionally be developed.

An international review of 21st century skills in schools, conducted for the NSW Department of Education last year, concluded that “many systems and schools have invested considerable effort in broadening their conceptualisation of the skills young people require for their future. At the same time, there is little evidence providing clear direction on the most effective approaches to the teaching and learning of the identified skills, as well as the best ways to assess them.”¹² Therefore it is not at all clear if the Review’s recommendation of creating learning progressions for the general capabilities is possible; and it has no evidence-basis to inform it.

What has been well established is that general capabilities are domain-specific, and their development in students depends on the strength of their knowledge of the object of critical thought.¹³ For instance, to think critically about the impact of

population growth on society, a student must be knowledgeable about immigration, demography, welfare, education, multi-culturalism and economics — at a minimum.

To be clear, content-neutral *strategies* can be taught — for example, students should be shown what steps to take to minimise the likelihood that they will be misled by inaccurate information on the internet.¹⁴ However, true critical thinking and reasoning requires some level of knowledge of the topic — and it differs according to the topic and task.

Daniel Willingham — a cognitive psychologist who specialises in the science of learning — has written extensively about the relationship between knowledge and critical thought. One example he cites is that people are less likely to be duped by the hoax website for the non-existent Pacific Northwest Tree Octopus if they have some knowledge of animal biology.¹⁵

Dylan Wiliam, who is widely acknowledged as a world-leading expert on formative assessment, has also argued strongly for the importance of content knowledge.¹⁶ Wiliam says “there is one aspect of the current discussion of 21st century skills that has taken us in an unfortunate, and possibly disastrous, direction, and that is the view that these skills are generic, and transferable from one context to another.. For all the apparent similarities, critical thinking in history and critical thinking in mathematics are different, and are developed in different ways.”¹⁷

To question the Review’s recommendations on general capabilities in the curriculum is not to disregard the importance of capabilities like critical thinking, creativity and communication. It is rather to point out that its proposed solutions to the challenge of developing these important skills are not informed by evidence.

Literacy and numeracy as ‘general capabilities’

Literacy and numeracy are arguably special categories of capability. They can be rightly understood as foundational skills that underpin all other aspects of the curriculum, but they should also be understood as bodies of knowledge.

Literacy is predicated on knowledge of how the English writing system represents speech through print, as well as knowledge of an enormous range of words and their often context-dependent meanings.

Numeracy is predicated on knowledge of how numbers represent measures in concrete and abstract ways, and the arithmetic concepts that govern working with numbers.

Literacy and numeracy comprise both knowledge and skill, and the research literature on their development is lengthy, rigorous and detailed, which means it is feasible to create learning progressions. This has in fact been done — there are already literacy and numeracy progressions aligned to the Australian Curriculum.¹⁸

While the progressions are more exact in some elements of literacy and numeracy than others, and the precise sequences are not rigid, there is sound basis for a hierarchy of skills in some domains. We know that, for example, when learning phonics, children will be able to decode simple words like 'sat' before they are able to decode words with more complex structures like 'scratch'. Children will be able to work with fractions more easily if they first have a strong grasp of multiplication and division. These knowledge and skill bases are sequential and cumulative.

Much less is known about the developmental sequence of the other general capabilities. As noted by eminent educator Bill Loudon, "Developing the new progressions is not without risk. Existing progressions in literacy and numeracy build on a century of research on reading and mathematics learning. The new progressions in creativity and social skills will need to be underpinned by new scientific work."¹⁹ In other words, this detailed work is yet to be done and to suggest that valid general capability progressions could be developed in the immediate future is pre-emptive.

Assessing for growth in learning

Many legitimate concerns have been raised about the recommendation to assess for growth in learning. Teachers and teacher unions have expressed concerns about the teacher time involved in frequent individual student assessment; and schools and systems have queried the size and availability of the resources and infrastructure required.²⁰

Education researchers and policy analysts have pointed out there is no evidence that such an assessment tool would have a positive impact on student achievement. First, as noted above, the idea of creating learning progressions for the entire curriculum — which the Review recommends should be the basis for the assessment tool — has no support in academic literature. Second, there is no evidence supporting the implementation of such a broad-ranging online, on demand assessment tool as

described in the Review. In theory it has merit, but the report offers no example or precedent to show that such an expensive and time-intensive reform would be effective.

As a benchmark for measurement of learning, the Review recommends each child should be expected to achieve at least 'one year's learning growth' throughout each year of schooling. This seems like a reasonable expectation. However, there are inherent contradictions in the alleged problem the committee has identified — a standard one-size-fits-all approach to student achievement implied by an age and stage-based curriculum — and their proposed solution: a predetermined, standard 'one year of growth' minimum expectation for every student.

Furthermore, the Review does not explain how a child's achievement of this criterion would be determined, or by whom or what it might be defined. Would one year's learning growth be the same for a typically developing child and a child with learning difficulties or disabilities? What does a year's learning growth in history look like as compared to maths? Is this a valid benchmark for all levels of schooling? These are not trivial questions, and the report gives no serious consideration to them in making its recommendations.

The expectation that continuous individual assessment will improve student achievement is underpinned by the unstated assumption that if teachers have more detailed and immediate data about student achievement, they will be able to make the appropriate teaching response. There are numerous reasons to argue that this assumption carries a high level of risk. One is that the amount of teacher time required for this process to be effective has not been estimated. Another is that teacher education and professional development does not always equip teachers with the knowledge and strategies they need to intervene for improvement in student learning.²¹

If this recommendation is to be adopted, it should proceed only after a careful trial of the online assessment system in a sample of schools, using the literacy and numeracy learning progressions. Student learning growth in trial schools should be compared with student learning growth in a set of control schools not using the learning progressions, to determine the efficacy of the approach and lessons for implementation.

Mindset

The Review's strong endorsement of continuous individual assessment of learning growth is made with frequent reference to the concept of 'growth mindset'. The Review makes some substantial claims about the

importance of mindset, such as “Students need to develop a growth mindset and a passion for learning and be inspired to aim high and pursue bold goals. The most effective way to inculcate this is by school systems and schools placing the learning growth of each student at the centre of their education model.”²²

The recommendations appear to be heavily influenced by an essay by ACER executive director Geoff Masters, in which he puts forward a series of hypotheses about the psychological impact of various types of assessment and reporting and the subsequent effect on student learning.²³ However, Masters does not cite supporting research. For example, he says standard-based assessment and reporting “often encourages fixed mindsets about learning ability”, and that grading against year level expectations sends messages that “undermine students’ beliefs in the relationship between effort and success and frequently lead to disengagement.” While these statements could be true, they are currently unsubstantiated by research.

Masters recommends assessing growth in learning over time but acknowledges there are no examples of his preferred form of assessment in practice, saying that “Good reporting alternatives of this kind generally do not exist.” At this stage, therefore, the recommendation for continuous assessment and measurement of growth is speculative both in its implementation and its intended impact.

The concept of mindset is a common thread in the report — it is referred to 20 times throughout. According to the report: “Enabling students to be partners in learning, and supporting them to develop a growth mindset, positions them for success throughout education and life.”²⁴

The panel’s confidence in mindset as a driving force for student achievement exceeds the evidence-base supporting it.

The construct of growth versus fixed mindsets derives from research by Claudia Mueller and Carol Dweck in the 1990s but has become increasingly popular in recent years, to the point of becoming an accepted truth rather than a theory. The Review also refers to an analysis of PISA data showing that growth mindset is highly predictive of PISA scores.²⁵ One problem with the PISA analysis is that the factors categorised as ‘growth mindset’ and ‘fixed mindset’ do not accurately represent the constructs conceived by Dweck and colleagues, but have more to do with motivation and application of effort. This is a common problem with mindset studies.²⁶

The findings of the original research studies have not been replicated. Three experimental studies that

attempted to replicate and extend the 1997 studies by Mueller and Dweck found no effect of mindset conditions or interventions on cognitive ability, response to challenge, or educational progress.²⁷

Two recently published meta-analyses looked at the relationship of mindset to student achievement and the effect of mindset interventions, with an overall sample size exceeding 365,000 students. The first meta-analysis (129 studies) found most studies had null findings and the average correlation between growth mindset and academic achievement was very weak. The second meta-analysis (29 studies) found that only 12% of the effect sizes obtained for mindset interventions were positive, and that the effects were small and mostly for disadvantaged students. The researchers conclude that “those seeking more than modest effects or effects for all students are unlikely to find them. To this end, policies and resources targeting all students might not be prudent.”²⁸

There is, therefore, little evidence that schools can influence mindset. If mindset is a personal trait that cannot be intentionally developed — or it is not yet known how to do it — it is futile to place this responsibility and expectation on schools, and reckless to use it as the key assumption underpinning a wholesale redesign of student assessment processes.

Evidence Institute

The recommendation to establish an independent education evidence institute is sensible in theory. A body to facilitate and encourage greater use of evidence in education policies and practices would be beneficial for the school system.

But there are obvious potential issues with such a body. There is a high risk it could quickly become politicised — depending on who is appointed by the government to the board — and it may be difficult to find suitably qualified people to run the organisation such that all stakeholders are satisfied it is impartial. The body also has the potential to become too reliant on pleasing stakeholders; for example, not publishing reports on evidence that particular state governments or education unions disagree with.

There are already several government-funded and not-for-profit bodies dealing with education evidence. The NSW Centre for Education Statistics and Evaluation (CESE) is an example of an influential agency, and the Review acknowledges that the NSW CESE already performs many of the functions a new national one arguably should. The Review does not explain why it is preferable to have a national organisation as opposed to state and territory organisations.

Informed by a report commissioned from the Centre for Program Evaluation (CPE) at the University of Melbourne, the Review proposes a national independent body with four key functions:

- generating and sourcing relevant research and evidence
- synthesising evidence
- transferring, brokering and managing knowledge
- accelerating and mediating the practical utilisation of knowledge.

The objective of the national evidence institute is to produce and translate educational research so it can be used by educators and policy makers to deliver evidence-based practice and policy, thereby improving school and student performance.

The CPE report did not find an example of an institute anywhere in the world that has been shown to successfully perform all the functions necessary to achieve this outcome. It notes that any such institute in Australia would therefore be a “leader in the establishment of an evidence-based institution that travels the gamut of implementation and impact on the education sector.”²⁹ In other words, while the idea has merit and is widely supported, there is no precedent or guarantee it will have the intended impact.

Given the lack of an ideal existing model to emulate, there are number of critical factors to consider — especially governance structure — if a national evidence institute for education is likely to succeed.

If it is to be seen as credible, an evidence institute must be objective and independent of political and commercial influence. It must be seen to be operated without bias and in the interest of its beneficiaries — primarily, educators and students. It must also meet high standards of quality and deliver on its goals.

For these reasons, the governance structure of the institute will be critical. The two existing national authorities — Australian Curriculum Assessment and Reporting Authority (ACARA) and Australian Institute for Teaching and School Leadership (AITSL) — have different governance structures. ACARA is responsible to the Coalition of Australian Governments (COAG) and is funded and ‘owned’ by the federal, state and territory governments. The ACARA board of directors is a representative board, comprised of delegates from each state and territory and school sector, with a chair and deputy chair that must be approved by all board members.³⁰ The representative nature of the ACARA board is problematic as there are often tensions between the interests of board members’ jurisdictions and the work of ACARA. For example, board members representing states that are highly critical of NAPLAN — a core aspect of ACARA’s work — would find it

difficult to support the organisation in its defence of NAPLAN. These conflicts mitigate against the board working entirely in ACARA’s interests.

AITSL is funded by the federal government and has one ‘owner’ — the federal minister — who instructs the organisation in its work. The board of directors is an independent board rather than a representative board, so while board members are drawn from across the various jurisdictions, school sectors, and other key education organisations, they do not represent the interests of their respective employers, but use their experience and expertise in the service of AITSL’s work. The chair and deputy chair are appointed by the federal minister.^{31 32} This board composition works in favour of the board functioning well, as there is an expected common purpose, but it makes it more difficult to implement reforms driven by AITSL in states and territories.

The CPE report discusses the importance of governance arrangements and suggests that the ACARA board would be a useful exemplar. This would be a mistake for the reasons outlined above. ‘Buy in’ from the states and territories and non-government school authorities will be important for the institute to have maximum impact but this could be achieved by other means — not least by providing a service that is valued. It makes sense that the establishment of the institute should have a steering group that is representative; but its ongoing governance should arguably be in the hands of experts in educational research and practice with no conflicts of interest.

This focus on high-level expertise should extend throughout the organisation. The Education Endowment Foundation, and its Australian cousin Evidence 4 Learning — which is philanthropically funded — perform many of the functions of an evidence institute as described in the Review and CPE report. However, it has at least one key weakness, which is that it is not clear that the evidence summaries produced are written by experts in the specific field of study. This has led to evidence summaries that are disputed; but there is no transparent mechanism for review or dissent.

It is essential for the evidence institute to recognise that educational research is highly specific, and accurate translation requires deep knowledge of the field. For example, an academic who publishes work on English literature will not necessarily have a strong knowledge of the extensive research on early reading instruction. The model of ‘knowledge translation’ in which generalists summarise research on specific aspects of education carries a high risk of mistranslation and imprecision.

A possible model to emulate in the production of evidence syntheses is from the field of medical research. Cochrane is an independent, not-for-profit

organisation with a mission to “promote evidence-informed health decision-making by producing high-quality, relevant, accessible evidence.” The Cochrane Reviews are systematic reviews of research on particular elements of medical or health care, produced by a team of experts in that specific field. The review teams are organised under Cochrane Review groups, led by one or more coordinating editors. There are clear editorial protocols for systematic reviews, which are published under the names of the team members — lending more authority and accountability.³³ Plain language summaries are produced for the reviews, which allows the people using the Cochrane reviews to choose the level of detail at which they wish to engage with the evidence.

Cochrane commissions experts to review the evidence on important issues in their fields. This is a better approach, as it means it is not necessary to have enough suitably qualified experts in-house to review research across a broad range of fields.

In the context of education research — where much of the evidence is contested and covers a wide range of areas — it would be unrealistic to expect one group of researchers to have capacity to sufficiently and expertly review evidence on many different topics.

There are of course differences in the research needs of health practitioners and educators; and these differences will need to be taken into account. It will be important to include educators in the development of the model of the institute — particularly the modes of communication — to ensure the work produced is useful and utilised.

The terms of reference were not fulfilled

The context of the Review was the failure of previous increases in school funding to improve the academic outcomes of Australian students. After announcing a significant further increase of federal money for schools, the Turnbull government commissioned a panel chaired by David Gonski to ensure the extra funds were spent effectively in order to improve student achievement.

This is made clear in the Terms of Reference for the Review, which state:

*To achieve the best educational return on investment we must look at how money is best used, and not just how much is spent... The Turnbull Government has established the Review to Achieve Educational Excellence in Australian Schools, to be chaired by Mr David Gonski AC, to provide advice on how this extra Commonwealth funding should be used by Australian schools and school systems to improve school performance and student achievement.*³⁴

However, the Review does not fulfil the task it was given. It does not consider how additional funding allocated to schools should be used to maximise student achievement. Instead, there are general recommendations for the entire country, without any reference to the context of school funding arrangements. This is an illogical response to the school funding increases, as the extra money will be going to schools and school systems, which generally have some degree of autonomy regarding how they spend the money.

Further, there is practically no discussion of the cost or the cost-effectiveness of each of the report’s recommendations, such as for a national evidence institute or an online continuous assessment tool.

The Review also does not adequately address the more specific terms of reference:

*It will examine evidence and make recommendations on the most effective teaching and learning strategies and initiatives to be deployed.*³⁵

There is almost no discussion regarding the most effective teaching and learning strategies to be deployed. For example, the Review fails to consider the areas of teacher instruction and school discipline — which are among the top factors positively associated with student achievement according to the OECD³⁶ and a large volume of educational research. The Review could have added value by examining the factors most associated with student achievement internationally, and recommending ways schools can invest extra money based on this evidence. The evidence regarding the most effective teaching and learning strategies is not examined in any detail.

In particular the Review will focus on the effective and efficient use of funding to:

- *Improve student outcomes and Australia’s national performance, as measured by national and international assessments of student achievement.*

- *Improve the preparedness of school leavers to succeed in employment, further training or higher education.*
- *Improve outcomes across all cohorts of students, including disadvantaged and vulnerable students and academically-advanced students ('gifted' students).³⁷*

The Review deals with these three areas in passing, but not with respect to effective and efficient use of funding. There is no assessment made of costs compared to benefits of any recommendations in these three areas.

The specific issue of "the preparedness of school leavers to succeed in employment, further training or higher education" is not properly addressed. The Review states that "An appropriately in-depth review of the Australian senior secondary schooling model is beyond the scope of this Review"³⁸ but does not provide any justification for this statement. It would appear that such a review of senior secondary schooling is an essential component of reviewing how to improve the preparedness of school leavers for employment or further education. The Review recommends yet another review specifically into secondary education. This is a clear failure of the Review to fulfil one of its key terms of reference, and unjustifiably defers the challenge to yet another

possible future review. However, the Review does discuss early childhood education,³⁹ even though this topic is not mentioned at all in the terms of reference.

To support these recommendations, the Review will also:

- *Provide advice on related institutional or governance arrangements to ensure the ongoing identification and implementation of evidence based actions to grow and sustain improved student outcomes over time.*
- *Propose related transparency and accountability measures that support the effective monitoring, reporting and application of investment.⁴⁰*

The Review does not address the second of these points with respect to monitoring, reporting, and application of investment. While there are recommendations relating to governance and ensuring there is ongoing use of evidence in education policy over time, there is no discussion of how taxpayer money spent on schools should be more transparent, or how governments and schools can be held more accountable for how funding is invested.

Overall, the inescapable conclusion is that the Gonski panel did not carry out the task entrusted to it by the Turnbull government.

Conclusion: What could the Gonski panel have done?

The panel's task was clear: to peruse the research evidence and provide advice on the policies and practices that have the strongest positive impact on student achievement, with particular reference to school funding and performance on national and international assessments.

This could have been achieved by the following:

1. Identifying the school-based factors with the strongest relationship to student achievement.
2. Examining the evidence on implementation success and cost-effectiveness.
3. Determining which level of government would be most likely to influence and enable these factors.
4. Making clear implementation recommendations for federal government, state governments, schools, principals, and teachers.

Given that this did not occur, the federal government is left with the task of deciding whether — and how — the Review's sweeping recommendations can be enacted. This has been made more difficult by accepting numerous recommendations that lack detail and before obtaining estimates of the costs.

Some of the recommendations are either already in progress to a greater or lesser degree — including a Unique Student Identifier number, national teacher workforce strategy, implementation of literacy and numeracy learning progressions — or are relatively non-controversial. Others are truisms or sufficiently ambiguous to assume that they do not require any particular action from governments.

However, the recommendations discussed in the Review should be approached with great caution. They are potentially expensive and disruptive to the work of teachers and the lives of students, and have little or no evidence basis — a recipe for educational disaster.

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- 32 Disclosure: Jennifer Buckingham is a member of the AITSL board.
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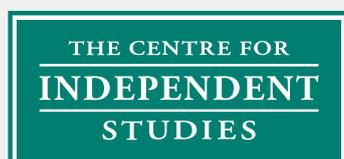
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