Scyne Advisory submission to the Review to Inform a Better and Fairer Education System

Dr Pete Goss, Head of School Education Consulting
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Introduction

Scyne Advisory welcomes the opportunity to respond to the Consultation Paper for the Review to Inform a Better and Fairer Education System (the Review). We strongly support the Expert Panel's (the Panel) focus on delivering – *for every student* – the twin goals of excellence and equity in the Mparntwe Education Declaration.

Meeting this goal requires system-level transformation as well as evidence-based policies that address specific challenges. Transformation is as much about 'how' to implement change as it is about 'what' policy goals to set. The focus of Scyne Advisory's School Education practice is primarily this type of system-level change and implementation of "policy into practice", and this informs our submission.

Following a summary of key points, Section 1 of our submission provides our view on what the Panel and the National School Reform Agreement (NSRA) should keep in mind about delivering *system-level* improvement. Section 2 provides brief commentary on the five topic areas the Panel requested input on. Section 3 discusses the links between prioritisation and funding, especially if all government schools were to be fully funded.

We would be delighted to provide further information on any element of this submission.

Summary of key points

Delivering system-level improvement (see Section 1 for further details)

Improving student outcomes across a system requires a different mindset and approach than is needed to improve outcomes at an individual school. A key opportunity is to reduce the level of variation in outcomes among schools with similar student cohorts. This could lift Australia's overall outcomes by the equivalent of a year's worth of learning by Year 9. *(See Section 1.1)*

The key to such a change is effective implementation, not innovation for its own sake. This involves the "three L's" of an adaptive education system: using the full range of policy and operational *levers;* careful design of how the changes play out at different *layers* of education systems; and driving *learning* (in the form of continuous improvement) by creating feedback loops at different layers. *(See Section 1.2)*

Any new reforms or initiatives must acknowledge that there is already a *triple transformation* underway in schools, in the workforce, in the use of data and evidence, and in the use of digital technology. Each transformation has enormous potential (and challenges) on its own, while also depending on and informing the other two. Approaching reforms in isolation risks making things worse, not better. *(See Section 1.3)*

Successful transformation ultimately depends on how well education systems providing guidance and support that nurtures rather than undermines the *change willingness of the workforce.* Emerging evidence suggests that when teachers experience 'mastery' of helping their students learn, their *collective efficacy* grows. In turn, this boosts teacher effort, resilience and persistence, building momentum for further change. *(See Section 1.4)*

Given limited resources (including time, money, and political focus), the NSRA should prioritise 'magic moves' that deliver more than one desired outcome. Top of the list should be reforms that *reduce workforce strain* and *boost student learning*. For example, creating an *expert teacher career path* could reduce workforce strain by providing support to existing teachers and by making teaching a more attractive career, while also directly supporting the dissemination of improved teaching practices that would boost learning. *(See Section 1.4)*

Specific observations and implications for the NSRA (see Section 2 for further details)

Observation	Implication for the NSRA
Improving student outcomes – including for students most at risk of falling behind	
Based on Year 9 NAPLAN results, children and young people in out-of-home care are approximately three years behind the national average in numeracy and reading.	National equity reporting should be expanded to include children and young people in care.
Improving mental health and wellbeing	
The higher prevalence of mental illness in students from disadvantaged backgrounds is a significant contributor to the 'learning progress gap' between students from low- and high-socioeconomic (SES) backgrounds.	Investing in wellbeing and mental health support for disadvantaged student cohorts is potentially one of the most promising ways to improve equity in student learning outcomes, as well as being valuable in its own right.
Our current and future teachers	
Reforms to Initial Teacher Education (ITE) take several years to impact the size of the workforce, and much longer to impact student outcomes.	The NSRA should prioritise targeted mechanisms to attract high achievers to teaching, but focus more effort on reforms that support the existing teacher workforce.
An expert teacher career pathway is a 'magic move' reform that could reduce workforce strain, boost student outcomes and even improve equity. However, it is a multi-year reform that requires as much focus on strategic workforce planning and implementation as on pedagogy. And it is distinct from HALT certification: being a HALT is not a job.	An expert career pathway depends on effective processes to develop then select the right people, and to create the right roles and support. Education systems should not rush roll-out. Those first appointed to expert roles should have time and responsibility to 'grow' the next generation, including helping promising candidates to get their HALT certification.
Collecting data to inform decision-making and boost student learning	
Data on current classroom practice is the missing link in the continuous improvement chain, and vital to reduce variation at a system level. But this data must be managed sensitively.	Consider which level of the education system is best placed to capture data about classroom practice.
Turning metrics into targets can corrupt the underlying process the metrics were intended to measure.	Limit the number of formal targets in the NSRA. Select them with care. Do not make collective teacher efficacy a target.
Funding transparency and accountability	
The NSRA is an opportunity for the Australian government to continue to improve its funding assurance, in line with better practice principles of *supporting*, *educating*, *administering* and then *enforcing*. State and territory governments should adopt similar approaches.	The NSRA should aim to harmonise and improve assurance processes while minimising the regulatory burden on schools and other stakeholders, including by data sharing. Agreeing up front what data will be used to track any new reform is a core part of 'assurance by design'.

The link between the NSRA reform initiatives and school funding (see Section 3 for further details)

The next NSRA is an opportunity to move towards our national promise of fair and full needs-based funding. For government schools in the states and territories furthest away from their funding targets, this could represent an increase in the order of $2,000 per student per year, creating a unique opportunity to direct funding towards areas that will boost student outcomes and wellbeing, and address workforce strains.

Section 3 provides an illustrative view on how this extra funding might be distributed. The Panel and the NSRA should explicitly consider costs and trade-offs among initiatives in the light of any potential move towards full funding. If the money is not used wisely, it will be hard to come back to Australian taxpayers asking for more.

Section 1: Delivering system-level improvement

1.1 Reducing variation in outcomes among schools could add a year's worth of learning by Year 9

The Consultation Paper notes (page 8) that "while there are many examples of excellence in Australian education, there are still too many students who are left behind in their learning."

In some ways, 'examples of excellence' are the blessing – and the curse – of school education. No matter the issue, it is always possible to identify a teacher or a school that is overcoming the odds and/or extending students in extraordinary ways. We should learn from these inspirational stories and celebrate them as the heroes they are. But the nature of heroes is that they are not the norm. Creating an adaptive education system to embed continuous improvement – or just standard good practice – at scale will have much more impact than a focus on innovation for its own sake.[1]

The opportunity for system-level improvement from such an approach is huge. A 2018 Grattan Institute report examined the differences in student learning progress, measured in equivalent year levels.[2] The report noted a strong 'equity gradient', where students in more advantaged schools make more progress than students in less advantaged schools. This is consistent with the observation in the Discussion Paper that achievement gaps between high-SES and low-SES students get wider as students move through school.

After adjusting for student background[3], the Grattan report found relatively modest differences among different states and sectors, or schools of different size or remoteness. However, differences among schools are very substantial, even for schools in the same sector and state (see Appendix 1). The Productivity Commission Review of the National School Reform Agreement study report (PC NRSA Review) confirms this finding, noting:

> "[T]here are also differences in average school outcomes across schools with similar characteristics. … For a student performing at the average numeracy score of schools in the [lowest index of community socio-educational advantage] ICSEA quintile, the difference in learning translates to about six (6) months of learning [across two years]. In reading, the difference translates to about eight (8) months of learning."

Extrapolate these differences in learning progress of 6-8 months over two years – or 3-4 months of learning per year – across the course of schooling. This suggests that, for an individual student, the impact of consistently attending a higher (rather than lower) performing school could be worth potentially three (3) years of additional learning gain by Year 9, or age 15. At a system level, closing half the learning gain between lower and higher performing schools would potentially add the equivalent of a year's extra learning by Year 9. This is comparable to the amount Australia dropped in the international PISA tests from 2009 to 2018.

It is important to note that this approach to reducing variation addresses some – but not all – elements of excellence and equity. In the language of the Productivity Commission (PC NRSA Review, Fig. 7, p. 19) it would:

- drive equity in minimum skills, reducing the proportion of students who are not proficient;
- drive excellence, increasing the proportion of high performing students; but
- not drive equity across students from different backgrounds or with different needs.

Other mechanisms are needed to eliminate differences associated with background, experiences or needs at all levels of achievement – in other words to flatten the equity gradient that causes learning gaps to widen as students move through school.

1.2 Implementation is key

As the Discussion Paper notes, "[s]chools where students achieve regardless of their circumstance or background tend to have a number of features in common" (p.page 9). But creating and sustaining these features can be challenging, especially with so much going on in schools. The focus therefore needs to be on effective implementation. This casts the role of education systems in a different light, to create the

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[1] For further detail, see Goss (2017), _Towards an Adaptive Education System in Australia._ LINK.
[2] Goss and Sonnemann (2018), _Measuring student progress, a state-by-state report card._ LINK.
[3] Using ICSEA, the Index of Community Socio-Educational Advantage.

circumstances for improvement, and to provide schools with the guidance and support to make good local decisions:

> *Student outcomes improve when teachers track how much their students are learning, identify the specific teaching practices that boost learning and those that don't, and then adapt the way they teach. However, **this process should not be done independently in every classroom**, and **schools need more help from education systems** to make good local decisions.[4] [Emphasis added.]*

Schools and teachers can then focus on how to identify and amplify the practices that work well in their context. Importantly, this balances the value of local autonomy with system-level guidance. It moves the debate from "should primary school X use (or make more use of) systematic synthetic phonics?" to "how can primary school X best incorporate systematic synthetic phonics into a broad and rich program to develop reading literacy that works for all students?" The first framing creates a binary debate that risks undermining teacher autonomy; the second acknowledges the importance of teachers' professional judgement as well as the strong research base about a particular pedagogy.

1.3 Future changes need to acknowledge the triple transformation that is already underway

Any reforms that are included in the NSRA need to acknowledge that school education is already undergoing three major, long-term transformations: in the workforce; in the use of data and evidence; and in the use of digital technology (see Figure 1).[5]
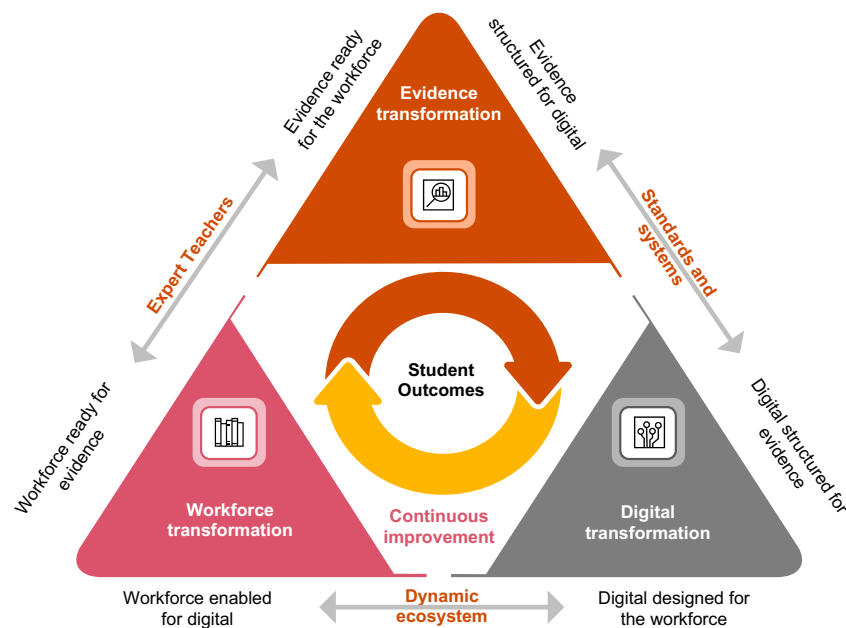

Figure 1: School education is undergoing a 'triple transformation'

Workforce transformation involves navigating a range of interacting challenges, including:

- attracting and retaining enough teachers to fill existing workforce gaps, and expand the teacher workforce by as much as 15% over the next decade to meet population growth;
- improving the effectiveness of pedagogy, both through Initial Teacher Education (ITE) reform and through mechanisms such as expert teacher career paths;
- helping educators deal with the evolving demands of their role, for example to include student wellbeing; and
- reducing workload and stress so as to make educators' jobs easier and better.

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[4] Goss (2017), overview of *Towards an adaptive education system in Australia*, LINK.
[5] Goss and Giles (2021), *How to transform school education in Australia over the next ten years*, LINK.

Evidence transformation involves improving how we gather data and build an evidence base relating to best practice, then translating this back into the classroom and rolling it out at scale.

Digital transformation involves leveraging the growing capabilities of digital technology – from cloud-based school management systems to online learning, analytics and generative AI – to support how schools run and ultimately improve student outcomes. For school administration and management, the digital transformation will be similar to other organisations and industry sectors, driven by imperatives of efficiency, integration and speed. In the classroom, digital tools should support, not supplant, teachers' professional judgements.

Each transformation has enormous potential (and challenges) on its own; but each also supports and depends on the other two. Strategic integration of technology works with data and evidence to inform the improvement cycle at all levels – helping teachers to visualise their impact, researchers to identify the most powerful practices, and policy-makers to measure and improve the effect of the programs they design. In turn, successful evidence and digital transformations require a workforce with the capacity and capability to use evidence and technology, just as much as they require robust data and good user design.

The key point of the 'triple transformation' is that thinking about the different changes in isolation will make it much harder to drive the desired improvements than if they are considered together.

1.4 Successful transformation ultimately depends on the change willingness of the workforce

Effective transformation depends on many factors, including strategic commitment, a compelling 'end state vision', unified leadership, capability building and effective execution. Given that school education is undergoing multiple transformations, a key limiting factor is the change willingness of the workforce, since reforms that improve student outcomes will typically involve changes in how our educators work. Changing behaviour is hard, even if the purpose of the change is clear and the outcome likely to be beneficial.

As reforms are designed and rolled out, the NSRA and education systems should therefore pay attention to, and nurture, this change willingness.

One way to do this is by tracking *collective efficacy* – teachers' collective belief in their ability to boost student learning. Collective teacher efficacy has gained substantial interest over the past few years due to its number one ranking in John Hattie's list of effect sizes related to student achievement.[6] More important in this context is the emerging evidence that collective efficacy is both a *result* of effective change and a *predictor* of future change willingness.[7] As Hoogsteen puts it:

> school processes are the most important factors in student success with collective efficacy being a result and effect of those processes that can stimulate further positive outcomes and improvement.

Policy reform should therefore aim to create positive feedback loops around collective efficacy, tracking it as an important indicator,[8] not a goal in and of itself. Effective system improvement processes – grounded in evidence, tailored to context, supported by expert teachers and implemented in collaboration with peers – will support teachers to gradually adapt their practices, experiencing success along the way and building ownership and confidence.

Done well, collective teacher efficacy will grow, along with the willingness to continue the transformation journey. Done poorly, or if the pace of change outstrips the ability of our teachers and principals to experience success along the journey, collective efficacy will fall and resistance to change will rise. Tracking collective efficacy will therefore provide insight into the effectiveness of reform and future change willingness.

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[6] See Visible Learning, LINK.

[7] See Hoogsteen (2020), *Collective efficacy: toward a new narrative of its development and role in achievement*, LINK. A key source of collective efficacy is *Mastery Experience*, which can result from helping teachers successfully implement practices that boost student learning; this then boosts teacher effort, resilience and persistence, building momentum for future change.

[8] Several instruments have been developed to measure collective teacher efficacy. For a recent discussion, see Herrara et all (2022), LINK.

1.5 Given limited resources, prioritise 'magic moves' that deliver more than one desired outcome

As the Consultation Paper notes (page 9), "the next NSRA should contain reforms and targets which focus attention and investment on priority areas". Given the limitations of investment, political focus, and the change willingness of the workforce, the number of reforms should be limited.

In order to get maximum impact, the NSRA should prioritise reforms that help achieve more than one reform goal – what might be called 'magic moves'. In particular, it should prioritise reforms that have a dual positive impact across two critical areas:

1. **Reducing workforce strain** (where strain includes teacher shortages; excess workload for many types of staff including teachers and principals; and stress and burnout), and;
2. **Boosting student learning** (including more effective teaching practices and boosting teacher capability).

Figure 2 (below) provides an indicative assessment of the impact of a number of initiatives that are part of the current public debate.[9] While many initiatives may be worthwhile in their own right, the positioning on this chart provides a way of prioritising competing initiatives.[10] For example:

- *boosting salary for all teachers* will help teacher attraction and retention but have a more modest impact on teacher stress (which is driven as much by the nature and expectations of the role as by teacher shortages), and is also likely to have a modest impact on student outcomes;
- *simplified administrative processes* could have a substantial impact on reducing workforce strain, but has only an indirect impact (through freeing up teacher time) on boosting student outcomes;
- *attracting teachers to hard-to-staff schools* would have a big impact on the student outcomes in those schools, but less impact on the overall strains in the workforce; and
- *an expert teacher career path* could reduce workforce strain by providing expert support to existing teachers as well as by making teaching a more attractive career, and at the same time would directly support the dissemination of improved teaching practices that would boost learning.
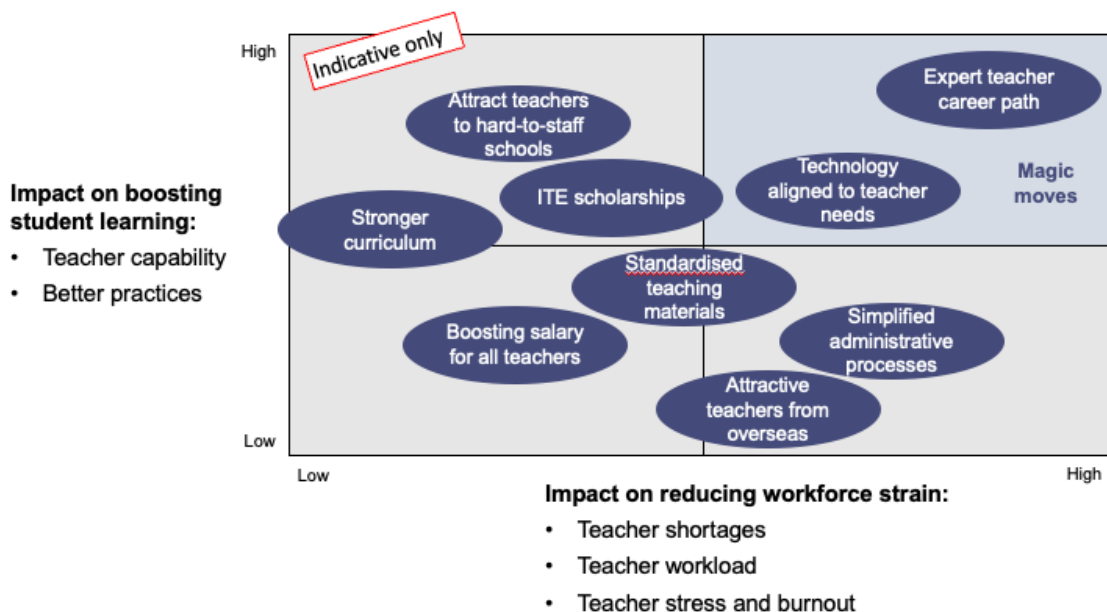

Figure 2: The NSRA should prioritise 'magic move' initiatives that boost learning and reduce workforce strain

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[9] The two current dimensions align closely to Chapters 2 and 4 of the Discussion Paper. The vertical dimension could be broadened to include boosting student wellbeing as well as learning, in which case the chart would cover Chapters 2, 3 and 4 of the Discussion Paper. Collecting data (Chapter 5) represents a specific set of initiatives which could be plotted on the chart, while funding transparency and accountability (Chapter 6) is a separate set of issues that stand on their own merit.

[10] Other elements to consider are the cost of different initiatives; the likelihood of successful implementation; how quickly they are likely to deliver positive impact; and their likely impact on boosting collective teacher efficacy and thus increasing future change readiness.

Section 2: Responding to the Discussion Paper

2.1 Improving student outcomes – including for students most at risk of falling behind

Beyond noting that desired student outcomes should be viewed broadly rather than narrowly, our response focuses on system-level change, not least because the specific evidence-based practices that will lift student outcomes vary based on many contextual factors, including level of school, subject, and student cohort.

As discussed above, creating stronger mechanisms to identify and spread existing good practice has the potential to dramatically improve student outcomes by reducing variation among schools. It would not necessarily improve equity for students from different backgrounds.

Such equity gaps are very wide (see Figure 3, below).[11,12,13] While similar analysis has been previously reported for Indigenous students[14] and parental background[15], this analysis highlights two factors:

- Students with a mental health disorder are between 1.25 and 2.5 years behind their peers with no mental health disorder (discussed further in section 2.2); and
- Students in out-of-home care are more than three (3) years behind the national average.
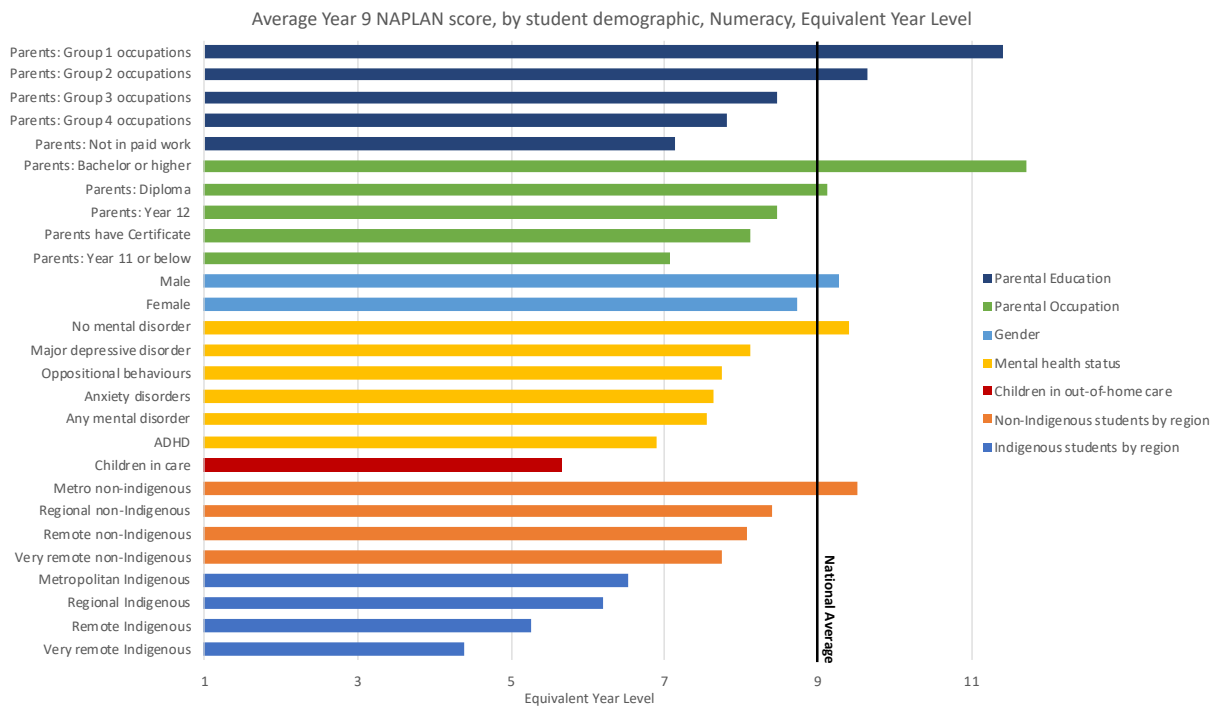

Figure 3: Comparison of average results by student demographic[16]

Based on this analysis, the NSRA should consider adding children and young people living in out-of-home care as an additional priority equity cohort. The scale of these learning gaps also has major implications for pedagogy. Interventions like small group tutoring can work well if only some students are multiple years behind, but other approaches are needed to teach the Year 9 mathematics curriculum if the underlying numeracy capabilities of most students is still at a primary school level.

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[11] We agree with the Discussion Paper (page 11) that "students who belong to … equity cohorts are not intrinsically disadvantaged".
[12] The pattern is similar for reading, although (for example) female students typically perform better in Year 9 reading than male students.
[13] Many of these equity group factors interact. For example, there is a strong correlation between geolocation and parental background.
[14] See, for example, *Grattan Institute submission to the Refresh initiative for Closing the Gap*, 2019. LINK.
[15] See, for example, Figure 11 in the PC NRSA Review.
[16] Author's own analysis. The learning gaps shown in the chart should be taken as indicative, because estimates of student outcomes have been aggregated from a variety of sources that are not always directly comparable.

2.2 Improving student mental health and wellbeing

2.2.1 Effective support for student mental health and wellbeing is proactive, not reactive

Over the past two years (both during and since COVID-19 lockdowns), our school education practice has engaged hundreds of schools and educators on this topic. This work has been informed, among other things, by the World Health Organisation (WHO) global standards and indicators for *Health Promoting Schools* introduced in 2021, built around whole-of-school initiatives and a whole-of-system effort.[17]

A key observation is that there is a gulf between theory (and aspiration), and practice:

- *In theory and in aspiration*, schools and educators recognise the need for an effective whole-school approach to promote wellbeing and mental health; early identification of students who need more help; and intensive support for students with complex mental health and/or wellbeing challenges.
- *In practice*, many schools and educators are caught in a reactive 'wash-cycle', intensively supporting the students who requiring the most urgent intervention, but struggling to properly resource a whole-school approach that would promote better wellbeing and early identification of problems.

Being reactive is not the fault of schools. They – and education systems as a whole – have been overwhelmed by the growing scale of wellbeing challenges and mental health diagnoses, compounded by COVID-19. The key is to change this dynamic, helping schools to become more proactive and regain the balance between whole-school approaches and targeted or intensive support where needed. For education systems, this could involve:

1. Creating an integrated framework for student wellbeing and mental health;
2. Increased resourcing and training for whole-school wellbeing, to create a culture that wellbeing is everyone's responsibility;
3. Helping schools identify evidence-based wellbeing programs;
4. Helping schools access the right specialist services, especially for mental health; and
5. Maximising the impact of specialist wellbeing and mental health staff.

These are significant changes, and at an education system level are more about redesigning the 'operating model' of how education departments provide wellbeing support than changes at an individual school level. It is also important to work collaboratively across education systems to use existing proven approaches.

2.2.2 The link between student mental health and equity gaps

The Discussion Paper notes (page 21) that "learning and wellbeing are inextricably linked" with "students experiencing poor mental health… are on average 1.5 to two years behind in literacy and numeracy outcomes". The Discussion Paper (page 23) also notes that poor mental health and wellbeing "can be more pronounced for… students in out-of-home care and priority equity cohorts." Combining these factors (Figure 4), the higher prevalence of mental illness in students from disadvantaged backgrounds could account for a substantial fraction (7 to 28%) of the 'learning progress gap' between students from low- and high-SES backgrounds.[18]

Contribution of mental illness to learning progress gap between low- and high-SES students = $\dfrac{\text{Differential prevalence of mental illness by SES} \times \text{Reduced learning progress for students with mental illness}}{\text{Difference in learning progress between low- and high-SES students}}$ ≈ 7-to-28%

Figure 4: Estimating the contribution of poor mental health to student equity gaps

This suggests that prioritising school-based wellbeing and mental health support for disadvantaged student cohorts – including strengthening links to other service systems – is potentially one of the most promising ways to improve equity in student learning outcomes, as well as being valuable in its own right. This may also help counterbalance the ability of more advantaged families to access mental health services in a private capacity.

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[17] The global standards cover: government policies and resources; school policies and resources; school governance and leadership; school and community partnerships; school curriculum; school social-emotional environment; school physical environment; and school health services. See https://www.rch.org.au/cah/research/Health_Promoting_Schools/.

[18] See Grattan Institute (2020), Mental Health in Schools, Submission to the Productivity Commission Inquiry into mental health. LINK.

2.3 Current and future teachers

The teacher workforce is facing a complex and interacting set of challenges, including shortages, workload, and stress and burnout. Reducing this strain will require a range of measures to attract new teachers, retain existing teachers, and make the job more manageable.

2.3.1 The role of ITE

Reforms to initial teacher education (ITE) have an important role to play but take several years before having a meaningful impact on the size of the workforce, and much longer to impact student outcomes. The NSRA should prioritise targeted mechanisms to attract high achievers to teaching, such as those in the 2021 report *Incentivising excellence, attracting high-achieving teaching candidates*.[19] These could help address teacher shortages in a few years, and would have additional benefits around equity if targeted at hard-to-staff schools.

Reforms focused on the quality of ITE may make a big difference in the long term, but it will be at least a decade before the majority of the workforce has received their training under any reforms implemented in response to *Strong Beginnings: Report of the Teacher Education Expert Panel*.[20]

2.3.2 Supporting the existing teacher workforce

The NSRA should focus more on reforms that support the existing teacher workforce. This could include encouraging systems to strengthen their teacher value proposition (TVP) and expert teacher career pathways.

A TVP is much more than salary. It comprises both emotional benefits (purpose; affiliation and belonging; intrinsic benefits) and functional benefits (career and advancement; workplace and work; monetary and other extrinsic benefits). To be successful, a TVP must be tailored to context. Even more vital is that it acts as a focal point for aligning policy and practice so that the lived reality of teachers meets the aspiration.

Developing an expert teacher career pathway (as noted in the Discussion Paper in Section 4.3 and Q22) should be a key priority for the NSRA. It is a perfect example of a 'magic move' reform (as discussed in section 1.5), with the potential to boost student learning outcomes as well as attracting and retaining teachers and supporting other teachers. While this topic is extensively covered in Grattan Institute's 2020 report *Top teachers*,[21] five points are worth making independent of the specific Grattan model:

1. Developing an expert teacher career pathway is a multi-year reform, potentially taking a decade to reach full operating capacity. Rushing the process risks lowering the quality and impact of the teachers appointed to expert roles, creating cynicism and lowering rather than raising collective teacher efficacy.
2. Implementation and learning along the way are vital. Education systems should carefully develop processes to select the *right people*, put them in the *right roles*, and provide them with the *right support and constraints* – and then continuously improve these processes on the basis of data and evidence.
3. Strategic workforce planning is just as important as pedagogy. Those in expert roles should be given the time and responsibility to 'grow' the next generation.[22] The rate limiting factors are the time to develop from a promising candidate into an effective specialist who is ready to train the next generation, and how many promising candidates each existing specialist can mentor while also doing their broader role. The model also needs to be tailored to fit schools of different sizes and contexts.[23]
4. Prioritising expert teacher roles in disadvantaged schools (especially early in the reform) would promote equity and potentially help address teacher shortages. If this is not done, there is a risk that expert teacher roles will be biased towards the schools that are already best resourced or performing exceptionally well.
5. An expert teacher pathway is distinct from recognising highly accomplished and lead teachers (HALTs). HALT certification acknowledges expertise, and should be a pre-requisite to take on an expert role. But being a HALT is not a job. The two pathways can be complementary: giving expert teachers dedicated time to support HALT certification would support existing goals to increase the number of HALTs as well as working to identify and develop candidates for the next generation of expert teachers (point 3 above).

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[19] https://behaviouraleconomics.pmc.gov.au/projects/incentivising-excellence-attracting-high-achieving-teaching-candidates
[20] https://www.education.gov.au/download/16510/strong-beginnings-report-teacher-education-expert-panel/33698/document/pdf
[21] https://grattan.edu.au/wp-content/uploads/2020/02/928-top-teachers.pdf
[22] See, for example, chapter 5 of https://grattan.edu.au/wp-content/uploads/2020/02/928-top-teachers.pdf
[23] See, for example sections 2 and 3 of https://grattan.edu.au/wp-content/uploads/2020/02/928-top-teachers-technical-supplement.pdf

2.4 Collecting data to inform decision-making and boost student outcomes

Collecting and using data is essential for continuous improvement, and the PC NRSA Review does an excellent job of discussing the opportunities and risks. We make two brief comments.

First, the Panel should think carefully about which level of an education system is best placed to collect and aggregate data – not all data needs to be published nationally. An example of this is the discussion in the PC NRSA Review (pages 197-199) around gathering better information on what is happening in schools now, including pedagogical techniques being used by teachers. While there are costs and risks from gathering this information, it represents the key missing link in the continuous improvement chain. Education systems already have substantial data on student outcomes, but without visibility around the practices that influenced them it is hard to systematically reduce the variation in student progress among schools. Put another way: it's not all that helpful to know that school A adds more value than school B if you do not know what it is doing differently.

Second, as Campbell's Law suggests, it is vital to distinguish between data used for monitoring and setting targets: turning a useful metric into a target can corrupt the underlying processes it was designed to track.[24] The NSRA should therefore limit the number of targets it creates, and select those targets carefully. As an example of this, we suggested in section 1.4 that the NSRA consider tracking collective teacher efficacy as an indicator of the change willingness of the workforce. This should *not* be a target; that would simply encourage teachers to claim increased efficacy, rendering the exercise worse than useless.

2.5 Funding transparency and accountability

The Australian government spends well over $20 billion per year on school funding, and state and territory governments spend over $50 billion. Funding transparency and accountability is vital.

The Australian government should use the signing of the next NSRA as an opportunity to continue to refine its funding assurance approach in line with better practice regulatory principles of *supporting*, *educating*, *administering* and then *enforcing*. This involves working closely with states to agree what data needs to be captured to enable accountability, while minimising the regulatory burden on schools and other stakeholders.

Key elements include:
- an integrated and overarching assurance framework;
- annual risk-based assurance plans that determine the scope of required assurance activities;
- school funding performance objectives and key performance indicators;
- an end-to-end process and set of controls for administration and monitoring of schools funding;
- communication focussed on supporting and educating the sector, with simple and accessible guidance materials which provide a single source of truth; and
- change management to help internal and external stakeholders transition to the new approach.

State and territory governments should adopt similar approaches to assure the funding they provide to schools. Importantly, both levels of government should look to use consistent data approaches to reduce the burden of data collection and provision on schools. Both levels of government should investigate the opportunity for technology to improve the efficiency, effectiveness and accountability of assurance processes.

Finally, to ensure that governments can assure that their funding is being spent appropriately, any reforms included in the next NSRA should be clear about what outcomes are being aimed for, and formally document what data will be required from schools and education systems to track the outcomes. This upfront process is a core part of 'assurance by design'.

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[24] Campbell's Law: "the more any quantitative social indicator is used for social decision-making, the more subject it will be to corruption pressures and the more apt it will be to distort and corrupt the social processes it is intended to monitor."

Section 3: Prioritising and paying for reforms

System-level reform takes time, effort and money. Along with prioritising 'magic move' initiatives, and tracking collective efficacy as an indicator of change willingness, the Panel should consider the relative cost of different initiatives in the context of the path to full and fair funding for all schools.[25]

In practice, the major impact of full and fair funding would be to increase funding for government schools in states and territories where funding is currently well below 100% of the schooling resource standard (SRS). In some jurisdictions, this is worth in the order of $2,000 per student per year.

Figure 5 provides an illustrative visualisation of how this level of funding might be distributed across five initiatives canvassed in the Discussion Paper, in this submission or elsewhere. Some have been described well enough to be able to estimate their cost per student, including wellbeing leaders in schools,[26] and an expert teacher career path.[27] Other are important priorities, such as principal salaries and additional funding for students with disability and additional needs, that are hard to cost in the absence of a specific proposal. Finally, it is important that individual schools receive some untagged funding to address their unique context.
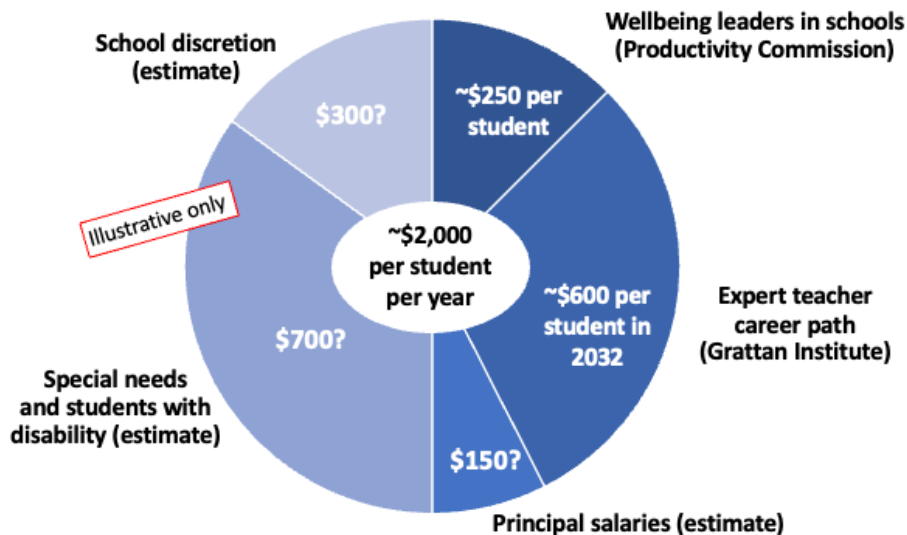

Figure 5: Illustrative split of extra funding if government schools were funded at 100% of SRS

The point of the exercise is to encourage a discussion about trade-offs, a focus on a small number of large and highly impactful reform areas, and a discipline on estimating the costs of different reform initiatives. The next NSRA is an opportunity to move towards our national promise of fair and full needs-based funding, creating a unique opportunity to direct funding towards areas that will boost student outcomes, student wellbeing, and address workforce strains. If the money is not used wisely, it will be hard to come back to Australian taxpayers asking for more.

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[25] The Discussion Paper (page 4) "notes the Commonwealth Education Minister's commitment to working with state and territory governments to put schools on a path to full and fair funding."

[26] Cost estimate is the author's own, building on the concept of mental health advisors as discussed in the Productivity Commission's *2020 Inquiry Report into Mental Health*, Volume 2 Chapter 5. LINK.

[27] Cost estimate from Chapter 6 of Grattan Institute's *Top teachers* report, LINK.

Appendix 1: Visualising variation among schools with similar levels of (dis)advantage

Figure 6 (below) illustrates the variation in learning progress among schools, arranged by the Index of Socio-educational Advantage (ICSEA).[28]

Each dot represents a school. The x-axis shows the ICSEA score of the school, and the y-axis shows the average progress from Year 3 to Year 5 in NAPLAN numeracy skills for five cohorts of students. Grey dots represent all Australian primary schools (over 7000 of them), while coloured dots represent the schools from one state, with a different colour for each sector.

The most obvious feature of the data is its consistent upward slope – students in more advantaged schools make more progress than students in less advantaged schools. This 'equity gradient' is consistent with a range of other analysis that learning gaps widen as students move through school.[29]

Less obvious but even more striking is the level of variation among schools that have the same ICSEA score. For any vertical slice of the chart, students in some schools are making dramatically more progress than in other schools.[30] Even ignoring outliers, the highlighted red arrow shows a difference of more than half a year between low and high growth schools. The PC NRSA Review confirms this analysis, noting differences in learning gain of six (6) to eight (8) months between higher and lower performing schools.[31]

The coloured dots in Figure 6 shows that this level of variation among students with similar characteristics holds true for government, Catholic and independent schools even within one state. By contrast, at any given ICSEA level, there is very limited difference among sectors, shown by the fact that the coloured dots overlap each other at any vertical slice of the chart. Controlled for student background, the biggest drivers of variation occur within individual schools, not sector. This broad pattern also holds across states, size, remoteness and for different NAPLAN domains and stages.
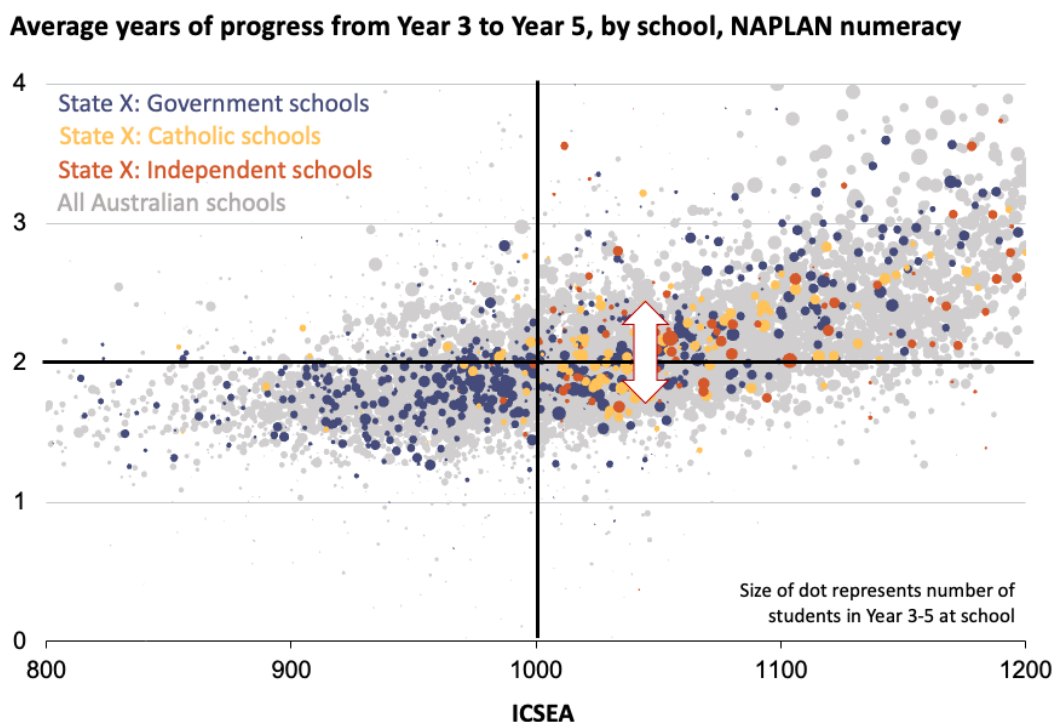
Average years of progress from Year 3 to Year 5, by school, NAPLAN numeracy

Figure 6: Student learning progress varies greatly among schools, even from within a given state and sector

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[28] Unpublished analysis from Grattan Institute, used with permission.
[29] Grattan Institute, (2020), *Widening Gaps*. PC NRSA Review Fig 11. Discussion paper Fig 1.
[30] The fact that each dot reflects five cohorts of students (from 2010-12 to 2014-16) reduces the chance that this variation is an artifact due to expected differences among specific student cohorts.
[31] PC NRSA Review p.17 and footnote 9.