Review to Inform a Better and Fairer Education System

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James Cook University (JCU) welcomes the opportunity to provide comment to the Review.

Australia's education system

In JCU's submission to the Australian Universities Accord consultation paper, we set out the need for place-based educational planning that can lift educational attainment levels across populations. Place-based planning is especially crucial for regional areas where **a change in approach is necessary** to catch up with the educational levels of metropolitan Australia, and to deliver on Closing the Gap commitments for Aboriginal and Torres Strait Islander people.

The Interim Report of the Australian Universities Accord flags the creation of a Tertiary Education Commission to navigate expansion and equity priorities in the higher education and vocational education and training sectors. However, Tertiary Education can only succeed in its ambitions if Primary and Secondary Education is also succeeding. In our Accord submission, we proposed a Learning Systems Commission, along the lines of the Tertiary Education Commission, but with the ability to facilitate local-level school, TAFE/vet and university partnerships and agreement-making on lifting educational attainment in place-based ways.

JCU contends that new machinery of government is needed to facilitate **place-based agreement-making** and support partnerships between educational providers - that is, schools, TAFE/vet and universities - to collaborate **on setting explicit targets based on robust data, the allocation of resources, and ensuring accountability for outcomes**.

Chapter: 1 Meeting the needs of all students shaping the nation's future

"Education should support young Australians to become successful lifelong learners who have strong literacy and numeracy skills and deep knowledge of the world, are able to think creatively, logically and inquisitively, can adapt to new ways of learning, and can continue to improve through formal and informal learning. Schools should also be inspiring and rewarding places to work for our best and brightest."

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JCU also agrees, education should be transformative. Our challenge is how to ensure education for lifelong learning extends to everyone. In July 2023, JCU hosted colleagues from 27 universities around Australia for the first *National Indigenous Learning Support Conference*[1] as part of our commitment

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[1] See conference website here: https://www.jcu.edu.au/nilsc

to **enabling a national conversation about evidence-based interventions**[2] to lift educational outcomes. Whilst this conference importantly focussed on Indigenous education, the practice and policy expertise provide a blueprint for lifting educational attainment rates across equity groups and regions. The Interim Report of the Australian Universities Accord talks about putting First Nations at the heart of Australia's Higher Education system. We contend that **First Nations need to be at the heart of all educational systems** – doing so will mean that Indigenous students, and students from every kind of background, will benefit from an adaptable and responsive system that enables people to flourish.

Throughout this submission, we highlight the need for **place-based agreement making and partnerships** between schools, TAFE/vet and universities to support accountability for lifting educational outcomes for all, and this is particularly important for northern Queensland and regional Australia.

Chapter 2: Improving student outcomes

The consultation paper to inform a Better and Fairer Education System acknowledges that schools alone cannot fix existing educational inequities. **Universities, particularly those based in regional areas, are part of the solution**.

It is vital the next National Schools Reform Agreement (NSRA) acknowledge and addresses the **bottlenecks in the school sector**. In a specific region in northern Queensland, for example, there are 12,500 Indigenous school students. In 2021, only 33 of these students enrolled in university studies[3]. The concerning reality is that Indigenous students who are falling behind in Year 7 will not recover, and by Year 10 two-thirds of Indigenous students in these regional and remote schools have dropped out. **It does not need to be like this**.

Like most universities, JCU has evolved long-standing outreach and engagement strategies with schools as well as partnerships with the school sector that have emerged various projects like the Student Law Conference, Uni-prep and Uni-start courses, Maths Refreshers ATSIMS[4], STEM School, and many others. These engagements largely help with **raising the aspirations of students** while at school and for them to think about choosing subjects that can align to a future profession. New work is also evolving to address the **preparation and readiness of school students to study at university**. The JCU Indigenous Winter & Summer Schools[5] and the JCU Engineering Camp are week-long intensives for Years 10-12 students to engage in a range of disciplines (Medicine & Dentistry, Allied Health, Veterinary Science & Biomedicine, Indigenous Studies, Marine Science, Social Work, Nursing & Midwifery, Law & Business, Engineering). With the support of a more strategic funding framework in the next NSRA, to further the reach of federal programs like HEPPP, much more could be done to increase both the enrolment and preparation of school students in northern Queensland for university studies.

JCU also has researchers who have undertaken an important co-designed project to **improve STEM learning capacities for Indigenous students** from Prep to Year 10 that **clearly demonstrates what is possible** with effective and responsive data. A longitudinal ARC-funded study (2017-2024) led by researchers at JCU's Indigenous Education and Research Centre in partnership with 17 state schools and teachers in a remote region of Queensland attempted an innovation at the system design level to

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[2] See Nakata & Nakata, 2022. Supporting Indigenous students to succeed at university. Routledge.
[3] Qld Dep of Education, Table 2, Main Destination, 2021.
[4] Aboriginals and Torres Strait Islanders in marine science: https://www.jcu.edu.au/atsims
[5] https://www.youtube.com/watch?v=2nAUIZi-9Jo

improve the academic performance of Indigenous students. The co-designed project did not require a specialist teaching or curriculum specialists. The project worked with existing classroom teachers to deliver the Australian curriculum through deeper understandings of the core curriculum concepts and standards, and how to translate these into the learning engagements and in ways that Indigenous students can engage. After three years of focused work in mathematics in the 16 primary schools, the results showed that when compared to the average rate of performance for the preceding nine years, there was a 5% lift in the math results of Indigenous students in 2019, 12.5% lift in 2020, and 5% lift in 2021. This co-designed project has now extended to 19 schools and 4000+ students (and includes 1000 non-Indigenous students).

There are, however, **real issues in transitioning programs like these, from education research funding to secure on-going resourcing**[6]**.** What is needed is intergovernmental policy and funding regimes that a) enable regional universities like JCU and partner schools to work together, through place-based resourcing and agreement making, over timeframes that allow important empirical work to be validated longitudinally, and b) support the broader rollout of evidence-based approaches to other schools. A future NSRA could do well in establishing the framework whereby intergovernmental policy drives not just innovative work but their extension to benefit other schools. **Innovation and translation to other schools need facilitation by the next NSRA so that benefits can be accrued in schools at a much faster rate**.

In addition, universities like JCU located in regional areas with significant non-school leaver populations who are underprepared for continuing education carry an important responsibility for capability building. There are, however, structural issues with the current distribution across Australia of enabling and pathway courses. This has been a particularly acute issue for JCU and the northern Queensland communities we serve and represents a significant and cumulative equity issue. **Providing post-school enabling and pathway courses, at the level required to meet community needs, needs to be an ongoing and urgent priority** that intersects with this Review.

Chapter 3: Improving student mental health and wellbeing

Understanding **the interconnection between socio-emotional wellbeing and learning outcomes** is an important opportunity for the next NSRA to get right.

JCU researchers have revealed some important work **on the links between students' wellbeing and learning outcomes.** This longitudinal work is based on an ARC-funded study (2012-2016) of Indigenous academic persistence in higher education, which sought initially to understand how students journeyed through their undergraduate studies, the forms and types of persistence used, and the differences in experience of Indigenous students and non-Indigenous students. This study revealed new insights on student learning, motivation, behaviour, anxiety, attitudes, and responses, which added important elements to the growing awareness and knowledge in the collegiate of the range and "combination of external social systems and internal self-influence factors that motivate and regulate behaviour" (Bandura, 2012; Schunk and Pajares, 2002).

Researchers at JCU merged this foundational work with established research knowledge from across the world that consistently show levels of academic self-efficacy positively correlating with level of academic performance (Richardson et al., 2012; Robbins et al., 2004). This was then used as a foundation to devise **a support model for Indigenous learners**. This model was trialled over a 5-year period (2017-2022), and without altering the curriculum or teaching approach, achieved a doubling of

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[6] Our best estimate to extend the STEM project to 40 schools (8,000 students) in regional and remote schools in Queensland is about $97 per student per year.

the graduation rate in the fifth year. Importantly, and **with 150,000+ data points to show how the socio-emotional and psycho-social domains worked to improve learning outcomes, this empirical work now provides confidence for its transferral to other places** (Nakata & Nakata, 2022).

Following requests from school principals and the regional education office, this model has been adapted for the school sector. The school model is currently (2021-) under trial with small cohorts of Indigenous students across 19 primary and secondary schools in regional and remote areas. The model was also proposed for all five education regions of Queensland in 2022/3 as further trial sites (Yarrabah, Mt Isa, Fraser Coast, Gladstone and Cunnamulla), and in partnership with seven other universities, but failed to gain funding support from the federal government's Regional Partnerships Project Pool Program[7], creating disappointment and fatigue in the communities after a year of participating in the co-design process.

The trajectory of developing this evidence-based model for improving student wellbeing and learning outcomes, and the complex policy and funding context that has both enabled and inhibited its uptake, provides **a case study demonstrating the need for place-based partnerships and agreement making that can enable schools and universities to collaborate and take accountability for student outcomes.** JCU contends there is a significant opportunity for the next NSRA to support the type of work described above to progress "national wellbeing indicators... [and] enable targets and outcomes to be tracked over time" (p.25), an important outcome if we are ever to move progressively toward genuinely engaging student wellbeing in schools.

Chapter 4: Our current and future teachers

Attracting and retaining highly competent teachers is vitally important to student outcomes, and there are big challenges to overcome if we are ever to address the shortage of teachers in the school system. The development of teacher aides and career counsellors is particularly important in regional areas where they frequently carry additional responsibilities not expected in metropolitan Australia. JCU fortunately has a long history in pre-service teacher education after starting out as a College of Advanced Education some fifty years ago in regional Queensland, and with forty years of delivering Indigenous education programs for graduates to teach in regional and remote communities, there are many lessons from our experience that can help shape the next NSRA.

The first challenge to attract and retain highly competent teachers in the region is to train **them in the region**. More than 90% of JCU Initial Teacher Education students go on to work in outer regional and remote Queensland, and JCU graduates now make up the second-highest proportion of teachers and education professionals working in outer regional and remote locations in Queensland[8]. Cohorts who study education at JCU include students from lower levels of socio-economic advantage, students from regional, rural and remote areas, Aboriginal and Torres Strait Islander students, and students who are first in family.

For many students from equity backgrounds the transition to university can be challenging. Kahu, Picton & Nelson (2020) make clear that students' self-efficacy, emotions, belonging and wellbeing are the "mediating variables, or pathways, which increase or decrease the likelihood of engagement" (p. 659) and that a sense of belonging to the discipline has a significant impact on engagement. Evidence-based programs focussing on building self-efficacy and belonging in students, as described earlier in

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[7] The cost of running the 'Building capabilities for success' program over 5 years, in five regional/remote sites, is $3,305,000, plus software licensing of $650,000.
[8] Graduate Outcomes Survey

this submission, respond directly to these to these drivers. It is crucial for the next NSRA to elevate the role regional universities play in this important work.

The second challenge is to address the **low volume of students enrolling in teacher-education programs**. In regional areas, considerable numbers of students exit before completing Year 10. For example, 2/3 of Indigenous students leave before completing Year 10. Of those remaining, and continuing through to Year 12, only 11% of Indigenous students and 35% of non-Indigenous students enrolled in Bachelor programs[9]. Very few of these students enrolled in pre-service teacher education programs in 2021. As a result, the enrolment base in the region for teacher education programs must then be made up from the small number of school leavers and with the addition of non-school leavers. Including the Certificate III in Aboriginal and Torres Strait Islander Education, and Diploma of Aboriginal and Torres Strait Islander Education which embed academic requirements and articulation to the Bachelor of Education under the free TAFE courses would assist with providing an equitable pathway into teaching.

As described earlier, post-school leaver cohorts in regional areas, whilst resourceful, are often educationally underprepared. Notably, **the level of English, Mathematics & Science are not where they should be** for students to function effectively in a Bachelor of Education program. Without these knowledge and skills set the time it takes to complete a teaching training degree can be prolonged, slowing the supply of teachers to the region. As noted in a previous section, this is an area of work JCU researchers have been focused for the past seven years and much can be drawn upon to address the capacity issues. JCU has also operated over the past 30+ years a community-based remote area teacher education program (RATEP), which provides a pathway for Indigenous people across Queensland to train as teachers. 190 graduates have been achieved through this program[10]. There is an **opportunity here for the next NSRA to establish a framework for universities and schools to combine their research and program experience** to address both the capacity issues identified in this consultation paper and the low volume of enrolments in teaching programs.

The third challenge is to ensure graduates who exit from teacher-education programs a) have **deep knowledge of the Australian Curriculum** and its design for the development of capacities from one year level to the next; b) have confidence **and agility in translating the national achievement standards, elaborations and content descriptors to regional contexts**; c) are well **practiced in backward planning the schedule of learning engagements**; and d) have **high level of competencies in a wide a range of pedagogical strategies** to ensure students develop the skills set to function effectively in the learning challenges. It is also to ensure that early and mid-career teachers have access to a **system of high quality ongoing professional development,** regardless of how rural or remote the school, rather than relying on episodic or chance opportunities. The NSRA can enable and leverage universities such as JCU to engage continuing professional development with our teaching graduates, and with all school staff, in the communities we serve in northern Queensland.

The fourth challenge is to build on **innovative scholarship in learning and teaching** areas that build on the cultural interfaces between people and their diverse backgrounds, which utilises the many advantages of their differences for improved learning outcomes [11]. This, for example, has required a rethink of the learning and teaching nexus to allow scope for emerging research knowledge on how

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[9] Qld Dep of Education, Table 2, Main Destination, 2021.
[10] See Salter and Mitchell (forthcoming) for a case study evaluation of RATEP.
[11] This scholarship informs the learning and teaching dimensions of the Indigenous studies suite of subjects being delivered to undergraduate, postgraduate, and research students across disciplines at JCU for academics and graduates, who work and will work, in regional, rural and remote communities. The concept of the 'cultural interface' provides a way for teachers to work with different knowledge systems in a dialectical and non-adversarial or oppositional way. The cultural interface repositions teachers and students (literally or conceptually) in their relationship and practices with each other in contingent and non-deterministic ways, and places responsibility on the teacher to build learner capacities. This goes further than the cultural competency framework as set out in the AITSL standards See Nakata (2007) for further detail.

to build engaged learners. The approach clearly differentiates the delivery of the formal curriculum and standards, and the pedagogy of building the capacities and strategies of learners to engage with the teaching. This innovation draws from the socio-emotional wellbeing work by JCU researchers described above and focuses the design of learning engagements in ways that build the critical faculties and abilities students need to engage the learning task. **Active engagement by the student has been found by JCU researchers to be key** to a more effective learning process. It is important to shape the quality of teaching programs in the next NSRA to encourage such innovation in teaching and learning approaches. It must be more than the just the delivery of the formal curriculum and accounting for the achievements. It must also be about what we can do in our professional practice, whether teachers working in schools, or academics working in universities, to **build capacities of learners to engage with the teaching**.

Finally, the retention of early career teachers can be supported in schools by:
- Implementation of the *Induction Guidelines* (AITSL, 2018) by school leaders,
- Reduced teaching workload allocations and the provision of enabling work conditions[12], and
- Access to deliberate mentoring programs.

JCU's graduates teach in what are complex, often isolated and potentially isolating, contexts – both the schools and the communities in which they are located. The opportunity for early career teachers to **learn and grow on the job**; with release time for induction, mentoring, professional learning opportunities, and planning; as well as time to collaborate to avoid feeling isolated are important factors. Social connectedness, a sense of belonging and agency; and work life balance are important retention drivers, as are positive pre-service teaching experiences.

The next NSRA could do well in shaping and incentivising **more effective partnerships between universities and schools to jointly solve the problem of attracting and retaining teachers** in the profession and in the regions. It may well be argued that disconnect between the sectors has delivered the problem. However, for JCU, it is better to argue that a more effective framework facilitating and resourcing longitudinal work between the sectors can deliver the solution.

Chapter 5: Collecting data to inform decision-making and boost student outcomes

While there exists a significant amount of data being collected in Australia, and in many different organisations involved in the schooling process, it is the lack of alignment and access issues that most are concerned with. However, **there are more significant issues**.

The most significant issue is that **schools are not collecting the type of data that can help teachers** to dynamically adapt strategies to improve learning in real-time. As a result, classroom teachers may only discover a student is struggling to make the grade after the term has been completed. The importance of real-time data to dynamically inform teaching practice needs to be much higher on **the national reform agenda**.

As noted above, JCU researchers have been in partnership with 19 schools in regional and remote schools in recent years to co-design a systems platform to bring about a culture of evidence-based practice in classrooms. This partnership entails work to digitally code every national achievement standard of the Australian Curriculum, particularly to do with math and science, as well as their strands

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[12] The *Inquiry into the Status of the Teaching Profession* conducted by the House of the Representatives Standing Committee on Employment, Education and Training (2019) noted that Early Career Teachers may benefit from a reduced teaching workload and more time with experienced mentors. Similarly, the House of the Representatives Standing Committee on Employment, Education and Training (2019) supported mentoring programs being funded over the first three years.

and sub-strands, and content descriptors. It includes work with curriculum teams in each school to account for every achievement standard of the Australian Curriculum in their summative assessment tasks, and for every year level and for every term. It also includes work on the marking matrices for each unit of work so that, for example, levels of proficiency in mathematics could be assessed for understanding, fluency, reasoning, and problem-solving skills; and in science, measures of science understanding, science as a human endeavour, and science enquiry. The marking matrices also guide teachers to make informed judgments of context, complexity, cognition, and curriculum knowledge. When all is coded and working on the systems platform, they provide teachers a simple way to account for, and evidence, the steps being made by each student toward the national achievement standard.

Subsequent work includes the development of formative tasks for teachers to achieve knowledge of where students are at during term so that they can act much earlier to address learning issues, as well as the development of pre-entry assessment tasks to help teachers achieve detailed knowledge of their student's current capacity before planning their learning engagements in the coming term. Further work conducted includes the development of a moderation cycle on the systems platform, so teachers are able to discuss/calibrate their grades using data at the systems level and, in turn, achieve higher levels of consistency in their marking levels. The more recent work the team has done includes the incorporation of ACARA's numeracy learning progression into the systems platform, which now enables non-math teachers in primary schools to not only problem-solve areas where students are having learning difficulties but also can access the solutions to catch up students when they get behind.

These are beginnings of work that JCU has progressed in partnership with schools since 2017 that go to the heart of issues raised in this chapter: collecting data to inform decision-making and boost student outcomes. And much can be gained from this early work if we are to progress national agendas to **improve learning outcomes through evidence-based/informed practice in the teaching profession**. The is opportunity here for the next NSRA is to build on the early investments JCU has made to **advance the measures and metrics on learning so that the school sector can, in turn, evolve standards and renewal of practice that progressively move towards the learning outcomes** we are all seeking.

Chapter 6: Funding transparency and accountability

JCU's submission to the Universities Accord included comments on the schooling sector, even though it was outside the terms of reference for the Accord. We underscored the need to address the (currently increasing) level of social segregation within and between public, and non-government schools, and proposed bringing all public and non-government school funding together at one level of government. We also suggested that that caps on private school fees could be introduced given debt levels carried by families to service fees. This would bring schools into line with higher education and schools, like universities, could choose to become fully private and not attract government funding.

JCU supports greater transparency in funding for Approved Authorities, as this is essential for accountability and equitable distribution of resources at a national level.

We advocate for the transition to needs-based Schooling Resource Standard to bring public and non-government schools into line by 2025. Given the Interim Report of the Universities Accord flags the potential for a needs-based funding model to be applied to higher education, it is essential that lessons learned from the implementation of SRS be taken in consideration. The potential for Unique Student Identifiers to provide longitudinal insight into learning trajectories across lifetimes, and across equity groups, is immense, particularly when place-based analysis can provide important context to

understanding progression. The NSRA may wish to consider the USI and SRS in combination with a learner-centric national data platform.

Recommendations:

1. First Nations are put at the heart of the education system, with Indigenous practice and policy learnings as a blueprint to lifting educational attainment rates across equity groups and regions.

2. Machinery of Government be established that enables place-based agreement making and partnerships between schools, TAFE/vet and universities, to set targets, allocate resourcing and ensure accountability of outcomes.

3. Prioritise leading data sets, and real-time data to inform targeted teaching practice, in the NSRA agenda.

4. Establish effective mechanisms for transitioning and implementing successful programs, from educational research funding sources, to enable place-based school and university co-accountability for improved outcomes.

5. Support teaching workforce diversity through enabling pathways.

6. Expand/distribute post-school pathways and enabling programs to meet the educational needs of regional communities.

7. Ensure teaching graduates have deep knowledge of the formal curriculum and standards, as well as the pedagogy to build active learner capabilities and identities in the students they teach and enable regional universities and schools to collaborate on continuing professional development in regional areas.

8. Reduce the level of social segregation within and between public, and nongovernment schools, and consider bringing all public and non-government school funding together at lone level of government.

9. Cap private school fees, with schools (like universities) free to choose to be fully private without government funding.

10. Greater funding transparency for Approved Authorities to enable equitable distribution at the national level.

11. Implement the Schooling Resource Standard by 2025 and share lessons from implementing needs-based funding with any application to the Higher Education sector.

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