



THE UNIVERSITY OF
NEWCASTLE
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Submission to the Review of Australia's Higher Education System

TEACHERS AND TEACHING RESEARCH CENTRE

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The Teachers and Teaching Research Centre (TTRC) welcomes the opportunity to contribute to the Australian Universities Accord.

Established in 2013, the TTRC is led by Laureate Professor Jenny Gore and sits within the School of Education at the University of Newcastle. Over the past two decades, the TTRC has been an Australian leader in high quality impactful educational research into initial teacher education, quality teaching, teacher development, school change, leadership, student aspirations, equity, and STEM education.

Our submission addresses several of the Terms of Reference where our large and unique evidence base can inform policy decisions. We also make several key recommendations.

Review of Australia's Higher Education System

TOR1: Meeting Australia's knowledge and skills needs, now and in the future

Recommendations:

1. Make funding and resources available to improve career education in Australia.
2. Promote the government-commissioned free Aspirations professional development opportunity to teachers, career advisers and school leaders.

The Terms of Reference clearly acknowledge that in the immediate future, more than nine in ten new jobs will require post-school qualifications and 50% of new jobs are expected to require a bachelor's degree or higher.

Over the past decade, the Teachers and Teaching Research Centre has conducted one of the largest studies to date investigating the educational and occupational aspirations of Australian school students. This research provides important insight into how young people are thinking about their post-school futures within this broader societal context.

Student aspirations for university and university-related careers

Across four years (2012-2015) we surveyed 6,492 Australian school students about their educational and occupational aspirations, aiming to investigate how aspirations are formed, shaped, solidified or transformed throughout schooling¹. Overall, we found that university is the most desired educational pathway among young Australians, with 50.3% of students in our sample expressing interest in university as the highest level of education they plan to complete. By contrast, 13.9% indicated vocational education as their highest level of intended education, 12.6% indicated high school, and 23.1% indicated that they didn't know what level of education they planned to complete.

In an open-ended survey question, students were also asked to nominate occupations to which they aspired. Responses were coded using the Australian and New Zealand Standard Classification of Occupations (ANZSCO). The ten most frequently named Skill Level 1 occupations (i.e., those occupations requiring at least a bachelor's degree) were²: arts professionals, school teachers, veterinarians, architects, science professionals, engineering professionals, medical professionals, social and welfare professionals, legal professionals and registered nurses/midwives.

¹ Gore, J., Ellis, H., Fray, L., Smith, M., Lloyd, A., Berrigan, C., Lyell, A., Weaver, N., & Holmes, K. (2017). Choosing VET: Investigating the VET aspirations of school students. National Centre for Vocational Education Research. <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/choosing-vet-investigating-the-vet-aspirations-of-school-students>

² Gore, J., Holmes, K., Smith, M., Fray, L., McElduff, P., Weaver, N., & Wallington, C. (2017) Unpacking the career aspirations of Australian school students: towards an evidence base for university equity initiatives in schools. *Higher Education Research & Development*, 36(7), 1383-1400
<https://doi.org/10.1080/07294360.2017.1325847>

Due to the longitudinal nature of our survey, we were also able to investigate how interest in these occupational categories varied across the school years. In Australia, the assumption that aspirations take shape around the middle high school years results in the provision of most careers education in Year 10. However, our data clearly show that in some occupational categories, interest appears to rise or fall towards the very end of high school³. For example, students are less likely to aspire to be a vet or artist as they mature, but more likely to aspire to architecture, engineering, medicine, social work or law. Furthermore, significant interest in these careers is often expressed as early as Year 7, sometimes Year 5. In other careers, such as teaching and science, student interest is more consistent across year levels. Variation across year levels might relate to ongoing assessment by students of their abilities and achievement levels as they age or, indeed, to a more realistic understanding of what is involved in certain careers. Nonetheless, it appears that students are forming career interests at an early stage of their schooling.

These results reinforce the importance of robust career education in schools to meet Australia's skills and needs now and into the future.

Based on our research, and funded by the Commonwealth Department of Education, we developed a free 10-hour accredited online professional development course⁴ that explores how aspirations are formed and provides strategies for teachers, career advisers and school leaders to nurture aspirations in their students.

Interest in STEM-related careers

Internationally, there is particular concern over the low number of people studying and working in the science, technology, engineering and mathematics fields. Declining enrolments and participation in STEM disciplines is a significant issue because building capacity in the STEM fields is pivotal to maintaining/increasing productivity and international competitiveness.

Our research on student aspirations also shed light on the relative influence of different factors in shaping student interest in STEM-related pathways⁵. At a time when shortfalls in STEM participation are becoming critical, a better understanding of who is and is not interested in STEM provides timely insights for policy.

Of the 894 students (13.8% of student participants) in our study who expressed interest in at least one STEM career, a greater number expressed interest in science-related professions ($n = 463$), than engineering ($n = 322$), technology ($n = 180$) or mathematics ($n = 8$). Quite starkly, interest in mathematics as a distinct career path is significantly lower than the other STEM categories, with only eight students in our whole sample expressing an interest over the four years of the study.

We were also able to examine a combination of student background and school-related factors to determine significant predictors of student interest in a STEM career⁶. In terms of student background, our analysis revealed that students were more likely to aspire to a STEM career as they get older, more so for males than females. Cultural capital (i.e., provision of resources in the home) was found to be a salient factor, as was their exposure to a parent working in a STEM career. In relation to the school-related factors tested, students' prior academic achievement in both reading and numeracy were also found to be significant predictors of aspiration for a STEM career.

Overall, our results reveal a significant gap in students' knowledge about STEM careers, possibly leading some students to compromise on their aspirations due to limited knowledge about the broad range of possible careers. An implication for career education in STEM is that it is currently not filling this gap, leaving some students who may potentially have the 'skill and will' to pursue STEM without the necessary familiarity with these careers. Moreover, our data indicate that academic achievement rather than students' perception of their achievement is more predictive of aspirations for a STEM career. This finding highlights the need the importance of maintaining student interest and

³ Ibid.

⁴ University of Newcastle. (2018). Aspirations: Supporting Student Futures <https://www.aspirations.edu.au>

⁵ Holmes, K., Gore, J., Smith, M., & Lloyd, A. (2018). An integrated analysis of school students' aspirations for STEM careers: Which student and school factors are most predictive? *International Journal of Science and Mathematics Education*, 16. 655–675. <https://doi.org/10.1007/s10763-016-9793-z>

⁶ Ibid.

achievement levels in mathematics in the earlier years of schooling so that students are able to sustain their belief that a STEM career is achievable.

Pursuing post-school pathways

A recent study conducted by the Teachers and Teaching Research Centre investigated how student aspirations translate into actual post-school educational and occupational pathways⁷. This study extended our initial work investigating school students' aspirations by following up with students one-to-five years post-school. Additional data were collected in 2021 via online surveys (n = 52) and interviews (n = 21) with original participants.

As an important foundation for policy, we found that most students' educational and occupational aspirations changed at least somewhat in the years following their schooling. The majority of our participants indicated that their career aspirations (64%) and their educational aspirations (60%) had changed either "to a great extent" or "somewhat" since leaving school. Less than a third of participants indicated that their education (29%) and career (21%) aspirations had not changed at all.

The most prevalent and disruptive obstacle for participants in meeting their aspirations was mental ill-health. A conglomeration of personal, relational, and economic challenges drove both acute and long-term episodes of mental ill-health. Such episodes were common among participants who felt compelled to abandon their desired educational and/or occupational pathways and begin a new journey. The experiences of mental ill-health shared by many of these students are a reminder of the vulnerability of young people, even before the occurrence of the global COVID-19 pandemic.

University students from equity target groups in particular faced an array of challenges arising from their lack of access to knowledge about specific careers, specific courses, or the university system in general. Some students commented that their access to information about education and career options during school was, by and large, positive. However, there was a general consensus among interview participants that the career education they received at school was insufficient to prepare them for the realities of life after school, including participation in higher education.

Our results also showed that events such as natural disasters and the COVID-19 pandemic influenced students' post-school journeys in a number of ways. Fire and flood impacted several participants, but only in the short-term and with no obvious ongoing effects. By contrast, the pandemic lockdowns seemed to cause two main issues. First, many university students were forced to transfer to online learning, which some found to be less effective than face-to-face learning, but for others led to more time for work or leisure. Second, some participants were left without work, exacerbating their already vulnerable financial situations. The long-term effects of COVID-19 on students' mental health and their study and employment prospects remain to be seen. However, it seems likely that the pandemic will exacerbate existing inequalities.

Given the ongoing effects of the COVID-19 pandemic, concerted efforts will need to be made by universities and governments to ensure those from equity target groups in particular are able to access the same educational opportunities as their more advantaged peers.

TOR2: Access and opportunity

Recommendations:

1. Add first in family status to the national equity framework.
2. Allocate more places at university for students from target equity groups, including in prestigious institutions and degrees.
3. Develop targeted early entry schemes and provide financial support for disadvantaged students.
4. Work with Indigenous communities to make universities culturally safe.

⁷ Jaremus, F., Sincok, K., Patfield, S., Prieto, E., Fray, L., & Gore, J. (2022). Aspirations, equity and higher education course choice: The path travelled. National Centre for Student Equity in Higher Education. https://www.ncsehe.edu.au/wp-content/uploads/2022/04/Jaremus_UON_Final.pdf

First-in-family students

For more than three decades, Australian higher education policy has been guided by a national equity framework focussed on six underrepresented target groups: Indigenous Australians, people from low socioeconomic status backgrounds, people from regional and remote areas, people with disabilities, people from non-English speaking backgrounds, and women in non-traditional areas of study. Despite bringing equitable access to the forefront of university agendas, this policy framework has fostered a somewhat narrow conceptualisation of how educational disadvantage can, and should, be addressed.

Our research on student aspirations demonstrates that a targeted focus on first-in-family status provides a new way to conceptualise and address disadvantage^{8,9,10}. In particular, we found evidence to suggest that prospective first-in-family students are more likely to belong to one of the existing targeted equity categories compared to their peers with university-educated parents¹¹. Specifically, first-in-family students are more likely to identify as Indigenous, come from a lower SES background, and live in regional or remote Australia – the three longstanding and unmet targets of higher education equity policy.

It has long been acknowledged that disadvantaged social groups often overlap and that it is this 'multiple membership' that can be the locus of greater disadvantage. Our findings signal the immense potential of first-in-family status in capturing this locus of disadvantage, with young people in our research often experiencing structural disadvantage as well as educational disadvantage associated with not having access to parents/carers with firsthand experience of university^{12,13,14}.

Moreover, in examining educational aspirations longitudinally over time (2012-2015), we found that across every stage of schooling covered in our research (Year 3–12), prospective first-in-family students were less likely to aspire to university than their peers with university-educated parents¹⁵. Our findings suggest prospective first-in-family students begin to rule out the idea of higher education from an early age, with some foreclosing this possibility from as early as Year 3.

Even after accounting for other socio-economic and demographic factors, logistic regression analysis showed that young people with university-educated parents were just over 1.6 times more likely to aspire to university than their prospective first-in-family peers¹⁶. This finding mirrors enrolment trends; if a young person has a university-educated parent, it almost doubles their odds of attending university¹⁷.

Arguably, first-in-family status should be the quintessential concern of university equity agendas. These students face unacknowledged hurdles in navigating a different pathway from the one their

⁸ Patfield, S., Gore, J., & Fray, L. (2021). Reframing first-generation entry: How the familial habitus shapes aspirations for higher education among prospective first-generation students. *Higher Education Research & Development*, 40(3). 599-612. <https://doi.org/10.1080/07294360.2020.1773766>

⁹ Patfield, S., Gore, J., & Fray, L. (2022). Degrees of 'being first': Toward a nuanced understanding of first-generation entrants to higher education. *Educational Review*, 74(6). 1137-1156. <https://doi.org/10.1080/00131911.2020.1740172>

¹⁰ Patfield, S., Gore, J., & Weaver, N. (2022). On 'being first': The case for first-generation status in Australian higher education equity policy. *Australian Educational Researcher*, 29. 23–41. <https://doi.org/10.1007/s13384-020-00428-2>

¹¹ Ibid.

¹² Patfield, S., Gore, J., & Fray, L. (2022). Degrees of 'being first': Toward a nuanced understanding of first-generation entrants to higher education. *Educational Review*, 74(6). 1137-1156. <https://doi.org/10.1080/00131911.2020.1740172>

¹³ Gore, J., Patfield, S., Fray, L., & Harris, J. (2022). Community matters: The complex links between community and young people's aspirations for higher education. Routledge.

¹⁴ Patfield, S., Gore, J., & Weaver, N. (2022). On 'being first': The case for first-generation status in Australian higher education equity policy. *Australian Educational Researcher*, 29. 23–41. <https://doi.org/10.1007/s13384-020-00428-2>

¹⁵ Ibid.

¹⁶ Ibid.

¹⁷ Organisation for Economic Co-operation and Development. (2012). *Education at a glance 2012: OECD indicators*. Retrieved from <http://www.oecd-ilibrary.org>

families took. Their triumph in 'being first' should also be recognised for the new course it sets in family and community histories, often against great odds.

Students from low socioeconomic backgrounds

In recent decades, the Australian higher education landscape has achieved significant expansion. Initially aimed at getting more people into university, massification policies have, more recently, focused on widening participation – encouraging a more diverse array of students to 'choose' higher education. Paradoxically, this shift has deepened stratification, with new inequalities *within* and *across* the academy. However, this stratification is currently glossed over in higher education equity policy.

In both the UK and Australia, students from socially disadvantaged groups not only remain less likely to pursue university overall but, when they do, they are more likely to enrol in less prestigious institutions and degrees than their more advantaged peers¹⁸. These trends also manifest globally, with some students hoping to secure the ultimate positional advantage that comes from enrolment in 'world-class' Ivy League (US), Russell Group (UK), or Group of Eight (Australia) institutions. Arguably, massification has not led to the disappearance of an elite sector but, rather, perpetuated and amplified elite institutions as sites of both education *and* socialisation in a massified sector¹⁹. As such, the Australian higher education sector can now be described as highly differentiated and stratified.

Our research into student aspirations has been able to examine and tease out how stratification shapes, and is mutually reinforced by, young people's dispositions toward higher education²⁰. We analysed the complexities of choice using the concepts of the 'embedded chooser' and 'contingent chooser'²¹. The embedded chooser has university-educated parents and is likely to come from a highly credentialled, middle-class family, where university is deeply ingrained in the family narrative. Higher education is embedded within their world and going to university is a long-term expectation. For this young person, the choice is not about whether to go to university, but which university to choose, often as an indication of status and distinction. In comparison, the contingent chooser is a first-in-family entrant to higher education, typically from a working-class, low-income family. The very act of aspiring to higher education is a break from the established family narrative, and the very idea of university – not to mention where to attend – is contingent on any number of immediate concerns, such as economic, geographic and family expectations.

We were struck by how students at two schools in our research epitomised embedded choice and contingent choice and conducted a comparative case study to illustrate different kinds of higher education 'choice' among young Australians²². We compared a metropolitan high school, Harbour View High School (pseudonym), where students are more 'traditional' entrants to higher education, with a regional central school, Mountainside Central School (pseudonym), where students are less likely to pursue university pathways and therefore more likely to be seen as targets of higher education equity initiatives. In Harbour View, the median income is twice the state average and half of the adults in the area hold a university degree. In Mountainside, the median income is half the state average and one in fifteen adults holds a university degree.

Our research showed that young people at Harbour View see no choice *but* to go to university; it is a long-term expectation they take for granted, and not going to university is inconceivable. They have at least one parent and many relatives and friends who have been to university, and these people provide students with important first-hand information and stories. The decision to go to university is

¹⁸ Bradley, D., Noonan, P., Nugent, H., & Scales, B. (2008). *Review of Australian higher education: Final report*. <http://hdl.voced.edu.au/10707/44384>

¹⁹ Trow, M. (2007). Reflections on the transition from elite to mass to universal access: Forms and phases of higher education in modern societies since WWII. In J. J. F. Forest & P. G. Altbach (Eds.), *International handbook of higher education* (Vol. 18, pp. 243–280). Springer.

²⁰ Patfield, S., Gore, J., & Fray, L. (2021). Stratification and the illusion of equitable choice in accessing higher education. *International Studies in Sociology of Education*. Advance online publication. <https://doi.org/10.1080/09620214.2021.1912633>

²¹ Reay, D., David, M. E., & Ball, S. J. (2005). *Degrees of choice: Social class, race and gender in higher education*. Trentham Books.

²² Patfield, S., Gore, J., & Fray, L. (2021). Stratification and the illusion of equitable choice in accessing higher education. *International Studies in Sociology of Education*. Advance online publication. <https://doi.org/10.1080/09620214.2021.1912633>

so well established that student talk of aspirations centres on where to go, rather than if they should go to university. They often name prestigious institutions where family members have gone, and even overseas universities. These students also have access to international travel opportunities and take part in high-status cultural activities at school which they can 'trade in' when competing for entry into high-status institutions.

By contrast, the students at Mountainside, a regional area with a history of mining and logging, talk about university using language of hesitation and doubt; they will 'wait and see' what the future brings and believe that university is 'not for everyone'. Financial concerns are prevalent when they speak about higher education; for instance, one student said they would go only if they got a scholarship. Some said the 'real world' is one of work, not study, and they had already excluded the very idea of higher education from a young age. Most do not have a parent or relative with a degree and have not visited a university campus; their information about higher education therefore comes from school. While these students rarely mentioned a specific institution to attend, Mountainside is an hour's drive from a metropolitan university, which was perceived as the best choice for those who might go to university because of proximity to family, cost, and perceived 'fit'.

For the students at Harbour View, there is no clear-cut moment when the choice was made to go to university; rather, the path to university is so embodied that the idea of not going is unthinkable. Given such an enduring relationship with higher education, the real choice is which university to attend. In contrast, for the students at Mountainside, the decision about university manifests as deferred choice and self-exclusion, and the focus has already narrowed to the 'local' university. As a result, it is unlikely young people attending these schools will end up at the same university, or even the same kind of institution.

The idea of equitable choice in accessing higher education can therefore be considered at best, an illusion. The embedded chooser and the contingent chooser are two extremes of choice-making and higher education choice in Australia is differently experienced depending on where a young person lies on this continuum: from a wide array of global choice to a fundamental absence of choice. As such, while equity policy aims to open up higher education to 'the masses', it has an unintended and quite opposite consequence – it is entwined with social sorting.

In sum, while massification has fostered the widening participation agenda as we have come to know it, there is now a critical and urgent need to address the stratification hidden in this agenda. Equity of access to university cannot simply be addressed by exhorting more young people, regardless of their background, to 'choose' university^{23,24}.

Students living in regional and remote Australia

A discourse of under-representation has long framed the participation of regional and remote Australians in higher education. In light of the government's objective of proportional representation, it has become commonplace for policy and research to refer to an intractable 'problem' of shifting long-standing enrolment patterns in universities.

Unfortunately, however, this pervading discourse and logic has long pathologised regional and remote Australians. It assumes a metropolitan norm where young people *should* desire higher education for the human capital benefits they will bring to their communities and the nation, all the while failing to recognise the changing realities of life in rural Australia due to the impact of globalisation, automation and economic rationalism.

²³ Patfield, S., Gore, J., & Fray, L. (2021). Stratification and the illusion of equitable choice in accessing higher education. *International Studies in Sociology of Education*. Advance online publication. <https://doi.org/10.1080/09620214.2021.1912633>

²⁴ Patfield, S., Gore, J., & Fray, L. (2022). On becoming a university student: Young people and the 'illusio' of higher education. In R. Brooks & S. O'Shea (Eds.), *Reimagining the higher education student: Constructing and contesting identities* (pp. 10-26). Routledge.

Our decade-long aspirations-based research published, in a number of papers and books^{25,26,27}, has shown that aspirational strategies are rooted in specific life-worlds that shape perceptions, feelings and ways of being about the future. In this way, there are intertwined local, global, contextualised and place-based factors that shape access to post-school destinations for Australian school students.

In our research, for example, two rural communities stood out for the relatively high proportion of students who did not aspire to any further education after high school²⁸: Ironbark (pseudonym; approximately 20%) and Oldfields (pseudonym; approximately 27%). In both of these communities, local options available to young people as they contemplate their futures render higher education a less desirable option. In the regional community of Ironbark, with plentiful access to water and an abundance of work in low-skilled agricultural jobs, students can see prosperous futures without the need for university education. By contrast, in the regional community of Oldfields, the dire effects of drought have limited local employment options in agriculture but generated a reliance on jobs in the nearby mining industry. With few professional roles in the town requiring a university degree, 'the mines' have come to symbolise optimism and economic security.

In this way, our research into rural and remote communities in Australia demonstrates a highly strategic and meaningful approach to post-school futures which does not necessarily depend on university education. Higher education equity policy must do more to address the needs, goals and desires of rural communities, rather than adopt a metropolitan gaze and merely expect young people and their families to abandon their identities and lifestyle²⁹.

First Nations Australians

Despite Indigenous Australians being designated as a core equity target group in Australian higher education policy, scant attention has been paid to the specific aspirations of Indigenous students. As a result, the evidence base for equity initiatives targeting Indigenous students has been relatively weak.

A number of our studies have provided an important foundation for policy reform focusing on the aspirations of Indigenous Australian school students^{30,31,32}. In one study in particular³³, we found that the occupational aspirations of Indigenous and non-Indigenous students are similar, with the main differences being related to gender. For example, 'Sports and fitness workers' was the most popular occupational aspiration for both Indigenous males (21.9%) and non-Indigenous males (15.1%). This was followed by 'defence force members, fire fighters and police' for both Indigenous males (16.2%)

²⁵ Patfield, S., Gore, J., & Fray, L. (2022). Disrupting the discourse of under-representation: The place of rural students in Australian higher education equity policy. In D. Farrugia & S. Ravn (Eds.), *Youth beyond the city: Thinking from the margins* (pp. 40-56). Bristol University Press.

²⁶ Gibson, S., Patfield, S., Gore, J., & Fray, L. (2022). Aspiring to higher education in regional and remote Australia: The diverse emotional and material realities shaping young people's futures. *Australian Educational Researcher*, 49. 1105–1124. <https://doi.org/10.1007/s13384-021-00463-7>

²⁷ Gore, J., Patfield, S., Fray, L., & Harris, J. (2022). Community matters: The complex links between community and young people's aspirations for higher education. Routledge.

²⁸ Ibid.

²⁹ Patfield, S., Gore, J., & Fray, L. (2022). Disrupting the discourse of under-representation: The place of rural students in Australian higher education equity policy. In D. Farrugia & S. Ravn (Eds.), *Youth beyond the city: Thinking from the margins* (pp. 40-56). Bristol University Press.

³⁰ Gore, J., Patfield, S., Fray, L., Holmes, K., Gruppeta, M., Lloyd, A., Smith, M., & Heath, T. (2017). The participation of Australian Indigenous students in higher education: a scoping review of empirical research, 2000–2016. *Australian Educational Researcher*, 44. 323–355. <https://doi.org/10.1007/s13384-017-0236-9>

³¹ Patfield, S., Gore, J., Fray, L., & Gruppeta, M. (2022). The untold story of middle-class Indigenous Australian school students who aspire to university, *Critical Studies in Education*, 63(1), 80–95, <https://doi.org/10.1080/17508487.2019.1572022>

³² Gore, J., Patfield, S., Holmes, K., Smith, M., Lloyd, A., Gruppeta, M., Weaver, N., & Fray, L. (2017). When higher education is possible but not desirable: Widening participation and the aspirations of Australian Indigenous school students. *Australian Journal of Education*, 61(2), 164–183. <https://doi.org/10.1177/0004944117710841>

³³ Ibid.

and non-Indigenous males (11%). For females, the top four occupational aspirations for Indigenous and non-Indigenous students were also similar. 'School teachers' was the most popular occupational aspiration for Indigenous females (16.6%) and was rated second by non-Indigenous females (11.4%). In comparison, 'arts professionals' was the most popular occupational aspiration for non-Indigenous females (14.1%) and was second for Indigenous females (10.4%).

This similarity between Indigenous and non-Indigenous students in occupational aspirations was reinforced by the finding that, in the presence of socio-demographic and school-related variables, Indigenous status was not a significant predictor of the aspiration to attend university in a full logistic regression model³⁴. However, and despite this statistical finding, a univariate analysis showed that Indigenous students were significantly less likely than their non-Indigenous peers to hold university aspirations. This difference indicates that other factors interact to dilute the effects of Indigeneity in relation to university aspirations, with our results signalling that prior academic achievement likely mediates the effect of Indigenous status. Thus, while our results show that occupational aspirations are similar between Indigenous and non-Indigenous students, educational aspirations differ, with this result explained, in part, by academic achievement.

Importantly, however, this same study also found that high-achieving Indigenous students were significantly less likely to want to go to university than their high-achieving non-Indigenous peers³⁵. More specifically, while 72% of non-Indigenous students in the top NAPLAN quartile aspired to go to university, only 43% of Indigenous students in the same quartile said they wanted to go. These differences raise important questions about both the *possibility* and *desirability* of higher education for Indigenous students. That is, a policy focus on increasing the *possibility* of higher education for Indigenous students (i.e., academic achievement) will not automatically make higher education *desirable*. While our results underscore the importance of supporting educational achievement as a key factor in keeping students' higher education options open, this approach alone will not be enough.

For Indigenous students, aspiring to university is likely to require negotiation of race, class, and cultural divides in ways that are not shared by non-Indigenous students. Fundamentally, it is not just about making higher education possible, but rather, making university a place where Indigenous young people will want to pursue and attain their occupational aspirations.

TOR 5: The connection between the vocational education and training and higher education systems

Recommendation:

1. Raise the status of VET by improving communication and education about VET education.

Our research investigating young people's post-school aspirations also provides an important foundation for considering perceptions of vocational education in Australia and what kinds of reforms are required to ensure a cohesive and connected tertiary education system.

As stated above, our research involving 6,492 Australian school students (2012-2015) found that interest in university is strong among our next generation of school-leavers³⁶, with 50.3% of students expressing interest in university as the highest level of education they plan to complete. By contrast, 13.9% indicated vocational education as their highest level of intended education, 12.6% indicated high school, and 23.1% indicated that they didn't know what level of education they planned to complete.

More specifically, our research found that school students who express interest in vocational education and training (VET) are demographically opposite to those students more likely to express

³⁴ Ibid.

³⁵ Ibid.

³⁶ Gore, J., Ellis, H., Fray, L., Smith, M., Lloyd, A., Berrigan, C., Lyell, A., Weaver, N., & Holmes, K. (2017). Choosing VET: Investigating the VET aspirations of school students. National Centre for Vocational Education Research. <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/choosing-vet-investigating-the-vet-aspirations-of-school-students>

interest in university³⁷. Using logistic regression analysis we found that students who indicated VET as their highest level of intended education are most likely to be characterised by one or more of the following: from lower socioeconomic status backgrounds; from a metropolitan location; male; from an English-speaking background; attending a socio-educationally disadvantaged school (measured by school ICSEA, publicly available on the MySchool website); and, perceiving themselves as 'average' or 'below average' for academic performance relative to their peers.

Our survey data also revealed that there is more interest in VET-related occupations than in VET as an educational pathway and clear misalignment between educational and occupational aspirations³⁸. For example, it was quite common for a young person to express interest in a VET-related career such as hairdressing, motor mechanic, beauty therapist, or fitness instructor, yet also express interest in university as an educational pathway.

Our research also demonstrates that males were not only more likely to express an interest in VET-related occupations than females, but their specific occupational interests were also very different from those of the female students³⁹. The gendered nature of occupational choice was clear, with traditional male and female occupations dominating the lists of most popular occupations for both boys and girls.

We also conducted focus groups with a sub-sample of 553 students. Here we found that students often described VET institutions, and/or those attending them, as lacking in some way and expressed concern that a VET qualification would not provide them with a competitive edge⁴⁰. Despite careers activities in schools, including VET-focused activities, many students were unclear about TAFE, conveyed outdated rather than contemporary portrayals of the sector and were unclear about the pathway to VET-related occupations. A strong theme emerging from the data was confusion about VET.

These data suggest that policy decisions such as prior broadening of the apprenticeship system, opening up the provider market and implementing the VET FEE-HELP program, all of which aim to improve the sector's responsiveness to the labour market and skills shortages, appear to be falling short of their desired objectives. Only a small number of students expressed interest in vocational education. Many students were uncertain of the pathway to a VET-related occupation and/or held views of VET as only for those unable to make it to university. A substantial number of students who showed some interest in VET became disengaged from the idea of vocational education as they moved through school.

Moreover, misalignment between educational and occupational aspirations and confusion about TAFE indicate that many students lack clear, accurate and contemporary information about the VET sector. It suggests that schools, VET providers and the government have more to do in ensuring that students and their parents/carers have a greater awareness of what pathways are available and where they might lead.

TOR 6: Quality and sustainability

Recommendation:

1. Make QT academic development available across the sector.

Corporatisation of the higher education sector has intensified in recent decades thanks to New Public Management techniques and policies. In Australia, we have seen increased emphasis on performance and productivity, heightened competition for students and funding, growing wage disparities between senior management and other employees, and substantial cuts to staff who

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Gore, J., Ellis, H., Fray, L., Smith, M., Lloyd, A., Berrigan, C., Lyell, A., Weaver, N., & Holmes, K. (2017). Choosing VET: Investigating the VET aspirations of school students. National Centre for Vocational Education Research. <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/choosing-vet-investigating-the-vet-aspirations-of-school-students>

perform the core work of universities – teaching and research. Most of these trends are similar across many Western institutions.

In Australia, the *Higher Education Standards Framework (Threshold Standards) 2021* mandates that academics should not only have relevant disciplinary knowledge but also skills in contemporary teaching, learning and assessment. However, teaching quality has arguably taken a backseat to research output as a measure of ‘success’. Despite all the talk of performance-based models of funding for universities, how to support university staff to genuinely enhance teaching quality has received relatively little government or institutional attention.

Student evaluations are the dominant mechanism for signifying and addressing the quality of teaching in universities. Unfortunately, however, valuing student reviews as the main mechanism for improving teaching in universities has left the sector with a warped understanding of quality teaching. Student evaluations typically take up ‘quality’ as a form of accountability, emphasising the delivery of products and services. Here, the *management* of teaching ends up being emphasised, rather than the *practice* of teaching.

‘Excellence’, like student evaluation, is another visible approach to addressing teaching quality in the academy. Academics who win institutional and national teaching awards are recognised as ‘good teachers’. Ultimately, however, such approaches often fail to address what actually constitutes effective teaching. They provide little or no support for academics seeking to understand and refine their practice.

Even when teaching and learning are touted as the intended focus of academic development programs, the pragmatics of teaching tend to dominate, with an emphasis on policy, logistics, and course management.

Academic development is often narrowly associated with attendance at workshops or seminars, rather than seen as an ongoing component of academics’ legitimate professional work. Some institutions implement peer observation and feedback processes to embed a culture of professional growth and learning. However, such opportunities are often experienced as judgmental and focused more on procedures than pedagogy per se. And yet, academics are under increasing pressure to demonstrate effective teaching.

In this context, a fairly straightforward solution would be to shift attention from *managing quality* to *realising quality* in higher education. In our recent research⁴¹, we trialled an evidence-based pedagogical framework, the Quality Teaching (QT) Model, to enhance conceptual understandings of quality teaching in the academy. The QT Model honours the complexity of teaching and affords academics a practical way to develop deeper conceptual understandings of quality pedagogy. Used effectively for two decades in K-12 schools, the QT Model was selected for this program given research demonstrating positive effects of QT Model-based professional development on teaching quality, teacher morale, and student academic achievement in schools^{42,43}.

The wide-reaching benefits reported by academics in our study⁴⁴ signal a potential way forward for the sector. Academics from a range of disciplines and from associate lecturer to professor levels attended a short workshop introducing the QT Model and then used the framework for self-assessment, peer review, or within a community of practice. At the end of the relevant teaching periods, academics reported direct benefits for analysing practice, course planning, collegial collaboration, and improving the student experience. Importantly, the QT Model provided a much-needed conceptual and practical way for academics to understand the practice of teaching, with fresh

⁴¹ Patfield, S., Gore, J., Prieto, E., Fay, L., & Sincok, K. (2022). Towards quality teaching in higher education: Pedagogy-focused academic development for enhancing practice. *International Journal for Academic Development*. Advance online publication. <https://doi.org/10.1080/1360144X.2022.2103561>

⁴² Gore, J., Miller, A., Fray, L., Harris, J., Prieto, E. (2021). Improving student achievement through professional development: Results from a randomised controlled trial of Quality Teaching Rounds. *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2017.08.007>

⁴³ Gore, J., Lloyd, A., Smith, M., Bowe, J., Ellis, H., Lubans, D. (2017). Effects of professional development on the quality of teaching: Results from a randomised controlled trial of Quality Teaching Rounds, *Teaching and Teacher Education*. <https://doi.org/10.1016/j.tate.2017.08.007>

⁴⁴ Ibid.

insights about what constitutes quality. It provided a new lens with which to reflect on, challenge and enhance ways of working.

Quality teaching in higher education remains a pressing issue. Genuine improvement requires a shift away from proximal measures of 'quality' (i.e., student evaluations of teaching and excellence awards) toward approaches that offer clear insight into how teaching can be enhanced. Our study established proof of concept of the QT Model in the higher education sector and offers a potential way forward.

The University of Newcastle is now championing the use of the QT Model, with a self-paced, on-line professional development course⁴⁵. The offering supports self-reflection, course and assessment design, peer review of teaching and the work of communities of practice through Quality Teaching Rounds, whereby academics observe, analyse and discuss practice with peers. To date, more than 200 staff members across disciplines and academic levels have enrolled in the course. Evaluations are extremely favourable, with 98% of participants indicating the course will positively impact their teaching and 96% indicating it will have a positive effect on student outcomes.

⁴⁵ Patfield, S., Gore, J., Prieto, E., Fray, L., & Sincock, K. (2022). *How to deliver quality teaching in universities*. Campus Morning Mail. <https://campusmorningmail.com.au/news/how-to-deliver-quality-teaching-in-universities/>