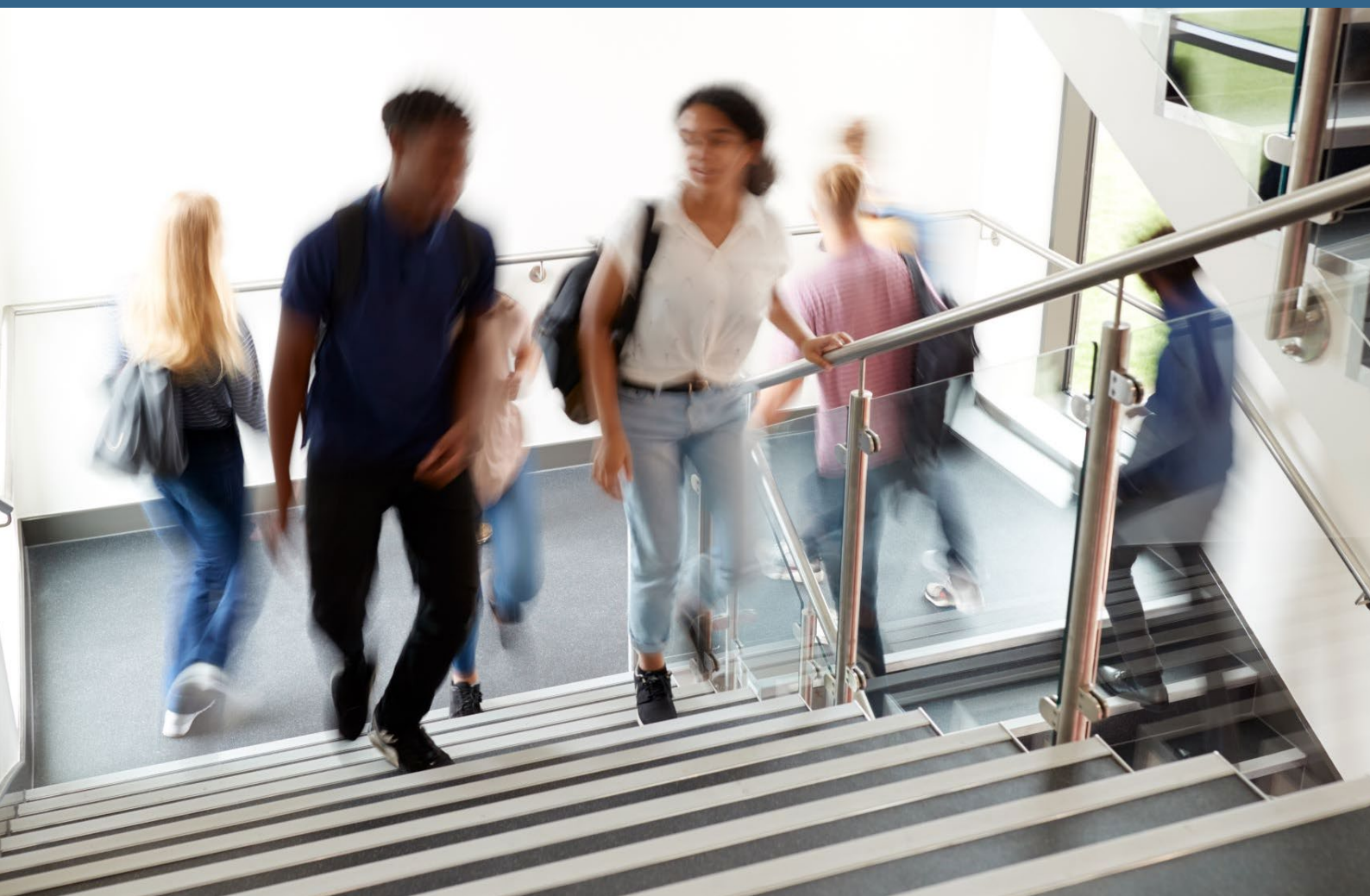


# BRIDGES TO THE FUTURE

GAP TASKFORCE ON YOUTH TRANSITIONS REPORT

SEPTEMBER 2019



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## Abstract

This report summarises the deliberations and proposals of the GAP Taskforce on Youth Transitions – a multidisciplinary stakeholder group established by Global Access Partners (GAP) in 2018 in the context of the NSW Curriculum Review. The group operated as an informal advisory body to Prof Geoff Masters AO and the NSW Education Standards Authority (NESA), and through them to the NSW Minister for Education. The Taskforce was co-funded by GAP and NESA and was chaired by David de Carvalho, Chief Executive Officer of NESA. He left that role in February 2019 but continued to chair the Taskforce.

## Disclaimer

This report represents the diverse range of views and interests expressed by the individuals and organisations involved in the Taskforce. Given the different perspectives of Taskforce members, it should not be assumed that every participant would agree with every statement or recommendation in full.

The Taskforce was an initiative of Global Access Partners, and its existence, process and results do not claim or imply any form of endorsement from any branch of government or the public service.

The report was prepared in good faith from the information available at the time of writing and sources believed to be reliable. Evaluation of the material remains the responsibility of the reader, and it should not be used as a substitute for independent professional advice.

## Terms and Abbreviations

ACARA	Australian Curriculum, Assessment and Reporting Authority
AQF	Australian Qualifications Framework
ASQA	Australian Skills Quality Authority
ATAR	Australian Tertiary Admission Rank
CSIRO	Commonwealth Scientific and Industrial Research Organisation
COAG	Council of the Australian Governments
FYA	Foundation for Young Australians
GAP	Global Access Partners
HSC	Higher School Certificate, New South Wales
MoU	Memorandum of understanding
NAB	National Australia Bank
NCVER	National Centre for Vocational Education Research
NESA	NSW Education Standards Authority
NSW	New South Wales
OECD	Organisation for Economic Co-operation and Development
RPL	Recognition of prior learning
STEM	Science, technology, engineering and mathematics
TAFE	Technical and Further Education
UAC	Universities Admissions Centre
UK	United Kingdom
USA	United States of America
VET	Vocational education and training

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## EXECUTIVE SUMMARY

Former Prime Minister John Gorton laid the foundation stone for Australia's first College of Advanced Education in Canberra in 1968, the year before the first moon landing. In his address, he observed that “*if we are to reach for the stars, we must reach for them with trained minds and skilled hands*”. The best ways to train the minds and skill the hands of young people in NSW remains a matter of debate, but easing the transitions between different types and stages of education can only encourage people of all ages and backgrounds achieve their full potential.

The GAP Taskforce on Youth Transitions was established in October 2018 to contribute to the NSW Curriculum Review announced<sup>1</sup> by the State Government earlier that year. The Taskforce was asked to explore school-to-work pathways – an issue crucial to the success of the Review – and offer expert advice and specific recommendations to the NSW and Australian Governments. The group served as an informal advisory body to Prof Geoff Masters AO and the NSW Education Standards Authority (NESA), who were charged with the conduct of the Review, and through them to the NSW Minister for Education.

The broad terms of reference of the NSW Curriculum Review<sup>2</sup> included the organisation and assessment of the secondary curriculum and matriculation to tertiary studies. The complexity of this issue led the Gonski 2.0 panel in 2018<sup>3</sup> to propose a separate independent inquiry on the subject.<sup>4</sup> As the GAP Taskforce on Youth Transitions was preparing its final report, on 8 August 2019 the Education Council announced a new review<sup>5</sup> to examine secondary school-to-work pathways and transitions under the National School Reform Agreement.<sup>6</sup>

The deliberations of the Taskforce were informed by several other public inquiries, including the Commonwealth review of the Australian Qualifications Framework (AQF), launched in November 2018,<sup>7</sup> which is assessing student transitions from school to training, work and further education. In April 2019, the expert review of Australia’s vocational education and training (VET) system<sup>8</sup> delivered its final report to the Australian Government, outlining a new vision for VET as “*a modern, applied and fast-paced alternative to classroom-based learning*”.<sup>9</sup>

Consultations by Prof Masters AO and NSW Curriculum Review submissions from stakeholders have stressed the need for new solutions for school leavers, and so the Taskforce worked towards practical ways of improving high school student transitions to work, training and tertiary education. The group collaborated for nine months to produce its recommendations. It considered Australia’s policy context, heard updates from the leaders of the NSW Curriculum and AQF Reviews, and consulted with education industry experts and practitioners. It also discussed international developments in credentialing and noted the increasing use of micro-credentials and portfolios to demonstrating learning achievements.

The Taskforce submitted two broad proposals to the NSW Curriculum Review. The first is to extend the concept of recognition of prior learning from the vocational to the academic aspects of the Higher School Certificate (HSC), to allow more seamless matriculation and reduce the undue dominance of the Australian Tertiary Admission Rank (ATAR) in student choices. The second is to explore new models of career advice in secondary schools to help students navigate an increasingly complex range of post-high school options.

The following report details these proposals and the discussions which led to their development.

## GAP TASKFORCE ON YOUTH TRANSITIONS

The GAP Taskforce on Youth Transitions was convened by the independent not-for-profit institute for active policy Global Access Partners (GAP). It brought together leading academics, senior public servants, education practitioners, business executives, representatives from non-government organisations and the philanthropic sector, thought leaders and policy experts. It was co-funded by GAP and the NSW Education Standards Authority (NESA) and was chaired by David de Carvalho, NESA Chief Executive Officer. He left that role in February 2019 but continued to chair the Taskforce.

The group met between October 2018 and July 2019 to discuss the issues and oversee the development of a final report and recommendations. The meetings were hosted by NESA, GAP and the Australian Curriculum, Assessment and Reporting Authority (ACARA).

The Taskforce followed the principles of the GAP ‘*Second Track*’ process – an innovative process of group collaboration which encourages positive thinking, deep long-term engagement, and a personal interest in achieving practical results. Meetings were held under the Chatham House rule of non-attribution to inspire a frank and constructive exchange of ideas.

This report represents the diverse range of views and interests expressed by the individuals and organisations involved in the Taskforce. Given the different perspectives of Taskforce members, it should not be assumed that every participant would agree with every statement or recommendation in full.

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## POLICY CONTEXT

### NSW Curriculum Review

The NSW Curriculum Review was announced, in May 2018. It is the first comprehensive review of the state's K-12 curriculum since 1989 in New South Wales.

The Review's terms of reference<sup>10</sup> encompass four themes - the purpose and structure of the school curriculum, the common entitlement of knowledge and skills for every learner, potential curriculum redesign and, finally, pupil assessment and teacher training and development.

The NSW Curriculum Review will be informed by public and stakeholder consultations, educational research, and lessons from other jurisdictions. A first round of public consultations was held between September and November 2018 and encouraged a broad community conversation. The events invited parents, employers, students and non-government organisations to consider high-level questions around the purpose of schooling and the four broad themes of the Review.<sup>11</sup>

Prof Masters is preparing an Interim Report, which includes community aspirations and concerns regarding the future of the NSW curriculum. It will identify possible reform directions.

### Review of Senior Secondary Pathways

At its 28 June 2019 meeting, the Education Council agreed<sup>12</sup> to the terms of reference for a review of senior secondary pathways into work, further education and training, as part of the 2018 National School Reform Agreement. The review will look at whether current arrangements are supporting students to make the best decisions for their future, and take into account the barriers faced by some students in pursuing certain pathways.

The review will be undertaken by an expert panel, led by Prof Peter Shergold AC, which will report by June 2020. The panel brings together experts in school operations, industry, VET, university entry requirements, student engagement and wellbeing, and the delivery of secondary education to disadvantaged students.

Studies by the National Centre for Vocational Education Research (NCVER) indicate that pathways young people choose to take after school are increasingly more diverse, individualised and complex. NCVER's 2019 *School-to-work pathways* report, based on a ten-year data from the Longitudinal Surveys of Australian Youth, reveals that factors shown to influence which pathways the students followed include studying VET subjects at school, individual school achievements and socioeconomic issues.<sup>13</sup>

## Review of the Australian Qualifications Framework

A Commonwealth Review of the Australian Qualifications Framework was announced in November 2018. Led by Prof Peter Noonan, the Review is also assessing student transitions from school to training, work and further education. The AQF Review panel published a discussion paper<sup>14</sup> in December 2018, and over 130 comments and submissions were received in reply in the first three months of 2019.

The Australian Qualifications Framework stratifies education into ten levels across the VET sector and higher education. The right place for senior secondary education in this framework has always been contentious, given the wide range of achievement by students awarded the Higher School Certificate (HSC) in New South Wales and its equivalents in other jurisdictions. The AQF Review's discussion paper therefore argues that a single level should not be assigned for senior secondary certificates, as these range from basic Level 2 VET courses to diplomas. Indeed, students preparing for higher education can reach Level 6 or 7 in terms of AQF achievement, while completing their senior secondary qualification.

This reality informed the Taskforce's proposal that individual VET and tertiary education providers could consider the application of credit for school-level subjects in accordance with their institutional policies. As well as easing individual transitions to higher education, this could help forge closer links between the secondary and tertiary education sectors.

The AQF Review is examining the role and purpose of senior secondary education, rather than its precise position within the AQF. It is focusing on the role of senior secondary education in preparing young people for tertiary education, training and employment, as few jobs in the future will be accessible to people without post-secondary qualifications. The Review will not prescribe course content or shape the HSC, but as it views secondary education as preparation for later life and work, in line with the Melbourne Declaration,<sup>15</sup> it could favour new ways to integrate different types of learning.

The AQF Review may produce a framework within which new descriptors of secondary education, and additional ways to recognise school achievement for entry into tertiary courses, can be placed. It may conclude that the years from 17 to 21 should be seen as a period for combining modes of young adult education, rather than divided into academic and vocational silos. Secondary school assessment and certification should therefore guide students into a mix of appropriate learning pathways, rather than concentrate on entrance to university.

## National Career Education Strategy

*Future Ready: A student focused National Career Education Strategy*<sup>16</sup> was endorsed by the COAG Education Council in February 2019. The strategy stresses the need for students to gain ‘career navigation skills’, and to consider and experience the world of work as early as primary school.

The strategy focuses on improving career education in schools by:

- building teacher and school leader capability
- supporting parents and carers in their important role in these conversations
- encouraging collaboration between industry and schools

Through the strategy, the government has funded ACARA to develop ‘illustrations of practice’ for careers education in schools.<sup>17</sup>

## The Joyce Review

The final report of the Expert Review of Australia’s Vocational Education and Training System,<sup>18</sup> led by the Hon. Steven Joyce, advocated the creation of a National Skills Commission and a National Careers Institute.

The Review released its report on 2 April 2019. Its 71 recommendations cover six broad areas: strengthening quality assurance; speeding up qualification development; simpler funding and skills matching; better career information; clearer secondary school pathways; and greater access for disadvantaged Australians. The Review recognised the need for a new vision for VET to elevate its status alongside higher education. It also suggested to critically examine the breadth of VET functions and classify the distinct ‘streams’ of VET to make it easier for people to identify where and how they can gain their desired qualification.

Among the Review’s key recommendations are:

- Bringing forward implementation of reforms to strengthen the Australian Skills Quality Agency (ASQA) and quality assurance in the sector;
- Establishing a new National Careers Institute and a new National Skills Commission to develop a new nationally consistent funding model;
- Revamping and simplifying apprenticeship incentives;
- Piloting a new business-led model of Skills Organisations for qualification development;
- Creating new vocational pathways in senior secondary schools;
- Providing new support for mid-career learners who need foundation language, literacy, numeracy and digital skills;
- Introducing benchmark hours for a qualification to be used by ASQA and other regulators in assessing whether the amount of training is adequate; and
- Launching a national VET marketing campaign.

The Australian Government announced funding for the National Skills Commission in its 2019-20 budget, and the National Careers Institute was launched on 1 July, along with the new *Skills Match*<sup>19</sup> initiative. At the COAG meeting on 9 August in Cairns, skills and education ministers agreed to work together through a new COAG Skills Council, to advise leaders on future reform priorities and provide a reform roadmap in early 2020.<sup>20</sup>

### Australian National Outlook 2019

The CSIRO and National Australia Bank funded the recently published *National Outlook* report, developed over the course of two years, to examine the consequences of radical reform or 'business as usual' for Australia in 2060.<sup>21</sup> It argued that better education, from early childhood through adulthood, could make the difference between a slow decline for the nation or vibrant growth and innovation.

*National Outlook 2060* emphasised the need for people to work effectively with technology as an important driver of productivity and linked future improvements in human capital to multiple factors, including education, STEM skill cultivation, vocational training, policy, workforce mobility and management. Cognitive skills, as well as strong creative, social and translational skills, will take on new importance as they are difficult to displace by technology and promote greater social opportunity and cohesion.

*Outlook 2060* also recognised that learning does not stop at high school and is now considered to be lifelong. People can expect portfolio careers, potentially having 17 jobs and five careers in their lifetime, perhaps in industries that do not yet exist. *Outlook* advocated for greater focus on early childhood education to set the foundations for lifelong learning and help build resilience and adaptability, as well the cognitive and collaborative skills required throughout the formal education years. The report also acknowledged that people need help with employment transitions, which should be seen as opportunities, rather than disruptions.

### Foundation for Young Australians' New Work Mindset Report

The Foundation for Young Australians (FYA) recently released a report analysing 2.7 million job advertisements across Australia<sup>22</sup> which highlighted seven clusters of skills and their transferability across different job sectors. The seven clusters were defined as the Generators, the Artisans, the Coordinators, the Designers, the Informers, the Technologists, and the Carers.

FYA's reports examine both workforce supply and demand and underline the importance of teaching flexibility and a willingness to change in the school curriculum. Young people must not only develop transferable skills but be able to explain what they are to potential employers. Another project analysing emerging job opportunities in South Western Victoria<sup>23</sup> led to a new tool to help young people articulate and apply their relevant skills across a range of jobs.

## OBSERVATIONS ON ISSUES AND OPPORTUNITIES

This chapter outlines the issues and opportunities considered by the GAP Taskforce. The summary of ideas and reform options is drawn from written proceedings of their discussions. The chapter is organised under headings that present and link the content of those discussions under various themes, but it does not reproduce the actual sequence of what was a series of free-flowing conversations.

### ► *Preparing young people for the future of work*

Technology is changing the world of work. The launch of smartphones and the development of artificial intelligence and Big Data have transformed the workplace as well as society over the last decade. Change continues to accelerate, and young people need more help than ever in envisioning their future. People can be prepared for change by improving their ability to adapt, even if the precise nature of those needs cannot be predicted.

Most jobs with a career path now require higher qualifications, but even the concept of a single career path is in the process of becoming obsolete. Students of all types will increasingly need support to understand the changing nature of job opportunities in the future. For example, a recent report *Australia's Digital Pulse* by Deloitte and the Australian Computer Society<sup>24</sup> notes that most of Australia's new tech jobs are filled through migration, rather than domestic college graduates, every year, underlining the career opportunities in that sector, and the increasing relevance of studying science, technology, engineering and mathematics (STEM).

Many jobs evolve more quickly than in the past, due to technological and economic change, and course choices which keep a range of options open or simply match a student's interests may be the best course of action rather than training specifically for a task which may soon be automated or disappear. Whatever pathways young people take after secondary school, they should have the basic capabilities they need to take them further, and this will inevitably include mathematical competence at perhaps a higher level than today.

Careers advice should help high school students understand that linear career paths are becoming the exception rather than the rule, and to consider their skills and capacities to transfer between jobs in the future. New ways to credit people for such skills and capacities in school and university subjects will help reshape traditional mindsets, as students often refer to the practical application of transferable skills and capacities in work experience or internships when applying for a job, but cannot explain their academic experience in similar terms.

▶ ***Bridging the gulf between student needs and educational structures***

There is a deep gulf between the educational needs of young people aged 15–24 and the traditional supply structures set up to meet those needs. A similar problem is developing in the health system, where patient needs and expectations are increasingly at odds with legacy, provider-dominated structures. Universities and other higher education providers, as well as vocational education and training providers, are aware of the problem, and there is ample evidence that many of them are making efforts to transition to new delivery models in response to digital disruption.

Educational institutions may therefore support steps to evolve current arrangements towards a more flexible system across the whole ‘learning enterprise’. Students will increasingly ask to take whatever tailored combination of courses they need to find jobs in ‘Industry 4.0’, rather than be forced into rigid, siloed categories (vocational versus academic) across hard boundaries (secondary versus tertiary) of the current education system. They will find alternatives if these traditional pathways fail to meet their needs.

▶ ***Achieving parity of esteem between academic and vocational courses***

Establishing greater parity of esteem between academic and vocational pathways while students are still at school is a key element in solving this problem. Pupils who gain vocational qualifications win few newspaper headlines compared to their university-bound peers. Many schools determine which students are the ‘dux’ by reference to their Australian Tertiary Admission Rank (ATAR), automatically excluding students who choose non-ATAR patterns of senior secondary study from eligibility for that honour.

The problem manifests itself after school as well. Because of the perceived higher status of academic university qualifications, the opening up of university places in 2012,<sup>25</sup> while it allowed many more students to attend university, had the unintended consequence of diverting students away from vocational courses which may be more interesting and suitable for them, and for which there may be more demand from industry.

Universities may not be paying sufficient attention to the changing nature and intellectual rigour of new vocational courses offered as part of senior secondary study. They automatically assign ‘Category B’ status to vocational courses, assuming that these courses do not adequately prepare a student for university study. Students can only choose one Category B (vocational) course as part of their pattern of study for the HSC if they want to be eligible for an ATAR. Yet arguably the academic rigour of many Category B courses exceeds that of related Category A courses. These rules mean that some students study academic courses they have little interest in, rather than more relevant skills.

The task of delivering high-quality instruction across all levels without lowering expectations for high achievers or pushing young people into the wrong pathway remains to be solved. Just as some students are forced into academic courses through a lack of vocational options, so other children may have parents who expect an academic route regardless of aptitude or interest, and these social and family pressures will not be removed by policy changes which fail to address the problem of unequal esteem. But there are signs of change in the right direction. Most universities already consider VET-level courses as part of their admissions or credit processes.

► ***The ‘pros and cons’ of the ATAR***

The privileged status of university qualifications compared to vocational qualifications means that parents and senior secondary students are in danger of focusing on how to maximise the ATAR as opposed to making subject choices based on a combination of interest and competence. The outdated approach to the categorisation of vocational courses for the purposes of determining eligibility for an ATAR, referred to in the previous section, is reinforcing this problem.

While the ATAR remains a key aspect of an efficient and equitable system for administering university entry, fewer universities are using it exclusively to make admissions decisions, focusing on other student attributes that are likely to be good predictors of success in particular courses, such as what subjects they studied as part of their HSC and how well they went, regardless of whether the pattern of study was ‘ATAR-eligible’.

For example, a student who achieves a high ATAR as a result of strong performances in music, dance and a foreign language will not necessarily do well in an engineering course. So, some universities are now re-introducing prerequisites for entry into certain courses, or looking more closely at what subjects students have studied at school before making offers, as well as other non-academic characteristics.

This approach is not without potential downsides, however. Alternatives to grade-only systems which emphasise other attributes entail a risk that, far from levelling the playing field, well-resourced schools and privileged families can further improve students’ chances of entry into first-rank universities by virtue of the opportunities they have been able to provide for their children (such as participation in extra-curricular activities of the kind which look good on resumes), while working-class young people might be more focused on working in the family business, for example. Well-intentioned moves away from the ATAR to improve social mobility may therefore have the opposite effect and disadvantage less privileged children.



For Year 12 students willing to pursue tertiary education, the ATAR is currently used either wholly or substantially in 80% of university admissions.<sup>26</sup> The Universities Admissions Centre (UAC) works with individual universities to convert ATARs into a selection rank using a range of inputs, including vocational qualifications, an individual's skills and employment experience, and their school's recommendation as well as the ATAR. The UAC works with all types of institutions, from Group of Eight<sup>27</sup> universities to niche service providers, to identify candidates with the right attributes to fit particular institutions. Building on this approach, rather than remodelling it entirely, may offer the most practical path to progress.

The ATAR is not only useful for universities, but also for students. Although not perfect, the ATAR enables students to have some understanding of where they sit with respect to their peers and, as a result, the opportunities that are available to them for further study.

► **Better quality and longer vocational courses**

Australia's problem is not a lack of vocational options within the school curriculum, as a plethora of subjects are theoretically available. However, most local schools only offer a handful of these courses at any one time due to a lack of size or resources, and many of these courses are not regarded as high quality by industry.

Nor is it a failure to push more students into academic tertiary studies. Indeed, the experience of countries such as Japan suggests that putting as many as 80% of students towards academic pathways would have little overall impact on growth. The key lies in better ways to match individual student needs, interests and capacities to the courses and training appropriate for them.

Upper secondary arrangements in Australia and NSW are unusual in terms of structure when compared to other nations. Clearer thinking about the reasons why schooling is constructed in this way may inform some of the structural and pedagogical issues under discussion in the NSW Curriculum Review, including the problems of parity of esteem of academic and vocational pathways and poor vocational-workplace relations.

Most OECD<sup>28</sup> countries have at least three years of senior high school education, for example, rather than two as in NSW. Two-year courses can make it difficult for students to achieve a thorough vocational competence in any sector, while three-year courses allow more confidence and skills to be developed and the award of more valued qualifications in the labour market.

► *The expansion of vocational colleges in a more diverse system*

Australia and NSW lack the clear distinction between compulsory lower high school and voluntary upper high school education found in many other OECD countries. Young people abroad often move to a different institution, such as a senior college, at the end of Year 10. These upper secondary colleges can adopt a range of learning styles and have larger student numbers in each grade, allowing them to offer more vocational courses than the handful offered by most schools.

While there is a need for greater parity of esteem for different pathways and a better range of available options to meet young people's needs, practical realities may hamper attempts to offer every opportunity to all students at the same site. Small schools already struggle to deliver their current courses without being expected to offer additional vocational options as well.

Young people in Year 11 and Year 12 who are developing their vocational interests in spheres such as music or electrical engineering need institutions which can offer more than the less resource-intensive hospitality and retail courses offered by many schools. Expanding the availability of specialised higher secondary colleges could more effectively meet this need, noting the risks involved in embedding the unhelpful view that students need to choose between an academic or a vocational pathway, similar to the German model.

However, if such an expansion of the availability of specialist vocational secondary colleges was to be considered, it would need to be done carefully so as not to encourage the perpetuation of vocational education and training being exclusively for those academically able. Such institutions could and should be promoted as those which are technically and practically focused. That is, they should not operate out of a 'deficit model'.

Just as family, school and personal expectations of performance can shape a pupil's results, so community expectations of the role of schools can play an important role in shaping their direction. In recent memory, the majority of pupils left at the end of Year 10, but the majority now stay on for Years 11 and 12. The minimum leaving age has been raised to 17 over the last five years, while it used to be just 14 years and 9 months. The community expected schools to teach a narrower set of subjects in the past than the broad spectrum delivered today, and there are growing tensions in an ever more crowded curriculum, as every group calls for its own niche interest to be catered for, without regard for other pressures on students' time. Advocates of change should beware of limiting young people's options in the name of expanding them. Many 17-year-olds lack a clear view of their future, and driving them down particular pathways at a younger age may limit future opportunities. The open nature of the HSC allows students to maintain a broader outlook, rather than predisposing them to particular careers.

▶ *High-quality vocational education in schools*

While the ATAR offers a consistent and transparent means of transition to academic institutions, non-ATAR paths from school to other forms of training can be more opaque. The lack of esteem dogging vocational courses is a product, in part, of fundamental quality issues in their delivery. Many business leaders argue that VET courses are best delivered in a VET-specific setting, rather than in schools whose dominant offerings is academic, where VET courses are too easily marginalised. The quality of the 300 VET courses which students can embark on can vary markedly between courses and institutions.

While poor careers advice or a lack of options are often blamed, it must be acknowledged that parents and pupils often choose the ATAR route because it gives them better options and reject non-ATAR alternatives because they have less, or at least narrower, value in the job market because of perceived poor quality. Students will only choose non-ATAR options if they believe this offers the same opportunities as the ATAR itself, just as VET courses will only gain parity of esteem with academic studies when they are of equal worth.

So high-quality vocational education should be available for every secondary student. Many countries are exploring ways to teach vocational skills at a higher level in ways which will be valued by students, parents and society as well as industry. These qualifications will involve the ability to apply skills in a practical environment but will fall short of full technical competence. Vocational offerings across a full range of secondary subjects would be ideal, although aligning these with changing industry needs remains a challenge. Such courses could bridge the gap between the general attributes sought by employers from all school leavers and university graduates and the narrower technical skills required for a particular job.

In addition to more coherent and sequenced school courses which give credit towards VET courses as well as preparing students to take them, a broader range of providers could be empowered to deliver them. A rethinking of the role of TAFE, particularly when schools lack the resources to provide many options for pupils on a vocational path, might also see students moving to TAFE institutions at a younger age.

The lower esteem, and therefore lesser attractiveness, of VET in the community could also be tackled with more positive messages to emphasise its role as a stepping stone to higher qualifications. BAE Systems offers apprenticeship degrees at the University of Sheffield in the UK, for example. Young people do not understand what these pathways are, and so cannot choose them, even when they exist in Australia today.

### ▶ **Business Perspectives**

“*You can’t be what you can’t see*”, and so ensuring that children from all backgrounds expand their horizons remains vital if they are to achieve their potential. However, parents, careers advisors and teachers should also become better informed of the new opportunities opening in a changing job market if children are to embark on education and training which will lead to a satisfying career.

A shortage of workers in the defence industry, for example, highlights a problem with careers advice in Year 11, as teachers may know little about defence opportunities. Business can play an important role in raising awareness, and major defence industry firms are now helping to fund a *WorkReady* cloud platform,<sup>29</sup> used by many schools in South Australia, Tasmania and elsewhere, which supports teachers by offering information on a range of defence related careers. The platform could also provide STEM support or information on space or other technologies in the future, and similar initiatives by other commercial sectors could help reduce future skills gaps.

Many firms and industries complain that schools do not properly prepare students for modern jobs, but taking positive steps themselves to address the problem, as with the defence platform outlined above, will be more effective.

The business community sometimes appears unwilling to contribute in meaningful ways to the development of a training system, preferring to argue that it is the responsibility of others to prepare young people for careers. However, calls for an Australian version of the German model of industry-education cooperation are likely to fail, as Australia lacks the historical and cultural background which created it, and so a different solution is required here. This will need to involve business as key partners in on-the-job skill development through apprenticeships and traineeships, with industry taking a long-term perspective.

### ▶ **Combining academic and practical learning**

Schools and tertiary providers can play their part in terms of overcoming the parity of esteem problem by breaking down the strict separation between academic and practical or applied learning.

General education and VET often run in parallel, rather than together, in schools as well as the tertiary sector, with their curricula created, taught and assessed in different ways. Construction and industrial technology offer an example of this, often artificial, dichotomy. The former is driven by industry training packages, while the latter is a more traditional subject assessed by a project which counts towards the HSC. Electro-technology is another vocational course which may have significant mathematical content, but a student may not be eligible for an ATAR if they choose another VET subject. Students entering Year 10 are understandably

reluctant to abandon all hope of attending university by choosing a vocational route, while parents are understandably confused by the plethora of different courses and qualifications available even if they accept that VET is the better option for their child.

The more progressive Australian universities now provide some of the best workplace learning in the country, as they recognise the need for a better interface between business and academia, and closer links between academia and industry can be made by addressing structural issues in the system as a whole. Finding businesses to participate in work experience schemes and allocating sufficient time in the school year can both be challenging, but these efforts should be pursued to achieve more productive outcomes.

Education is more than merely preparing students for a job, and should equip young people for life in all its many facets. However, schools should certainly listen to employers who complain that school leavers are unable to write clearly or perform simple calculations, as this implies wider failures of general education. The general capabilities which employers value, such as problem solving, teamwork, creative and communication skills, are general capabilities which schools can certainly encourage within all subjects and a host of extra-curricular activities. The successful example of Rooty Hill High School<sup>30,31</sup> where students complete a social entrepreneurship work task that includes opportunities to develop general capabilities, demonstrates how it can be achieved.

Businesses may be more interested in influencing the points at which young people decide the first steps to take on their future work and learning journey. Student decisions have a range of individual, family, school and social influences but tend to have little input from the workplace. Better information for students and families about their work and learning options, beginning in their middle school years, would help them make better decisions, just as better integration between school and the workforce could give young people a more balanced perspective.

#### ► *Incorporating a vocational element in extension courses*

Clusters of courses with academic, technical and soft skillsets which blurred the hard lines between academic and vocation courses could help solve many of the problems raised. It was suggested that extension courses in traditional school subjects could include a more practical or vocational element, for example, such as teaching marketing skills as part of English language. Caution would need to be exercised here, as it may water down the academic rigour of the course.

An excellent example of a course that combines high academic standards with practical skills valued by industry and higher education alike is the new HSC Science Extension course, introduced for the first time in 2019. This course focuses on the authentic application of scientific research skills to produce a Scientific Research

Report. Students propose and develop a research question, formulate a hypothesis and develop evidence-based responses to create their Scientific Research Report which is supported by a Scientific Research Portfolio. Students need to establish research partnerships with university or industry, who provide mentoring and support for the project. This is already resulting in students being offered places in science courses even prior to them completing their HSC. This reality has informed the Taskforce's proposal for the more widespread use of 'micro-credentials' for better integration of secondary and tertiary education.

▶ ***The impact of Commonwealth policy on tertiary sector diversity***

Commonwealth policy tends to encourage uniformity in the university sector. The title of 'university' itself is a protected term, and such institutions are required to have at least three research disciplines. All universities pursue research expertise in their particular fields, and any purely teaching institution would be disparaged by comparison, just as vocational pathways are seen as the poor relation of academic studies.

The *Old School/New School* document produced by the NSW Business Chamber<sup>32</sup> in 2017 advocated that policies to encourage diversity, rather than uniformity, should be explored. Teaching-only universities might offer high-quality courses at reasonable cost which bridge current academic-vocational divides and retain the kudos of the former while having the direct practical application of the latter. The review of higher education provider categories, conducted by Emeritus Prof Peter Coaldrake AO, is relevant in this respect.<sup>33</sup>

The VET Review<sup>34</sup> called for a fresh approach to address funding imbalances between VET and universities, noting the complexity and inconsistency of the current pricing and subsidy models and the high level of stakeholder dissatisfaction. The Joyce report proposed a new policy which would involve the Commonwealth preparing agreed national average costs and subsidy levels, with the States and Territories continuing to allocate places on a contestable basis to meet skills demand. A newly established National Skills Commission will work with state governments on VET funding under strategic policy direction from the Minister.<sup>35</sup>

These proposed new funding arrangements are designed to elevate the VET sector so it could compete more effectively with higher education. Students can still face formidable upfront fees for VET, while university students can use loans they repay later. More payment options for VET students, such as, for example, a life-long learning account running across both the higher education and VET systems, as proposed by the Business Council of Australia in the context of the Joyce Review, could encourage more young people to take the VET option.

### ▶ **Encouraging STEM**

More effective ways to encourage more students to study high-level mathematics are required, as the numbers of students taking such courses continue to decline. Industry and schools are connecting through *Inspiring Australia NSW* and encouraging girls to study a range of STEM courses, for example, but the plethora of incentives and schemes available have varying degrees of success. Several state education departments would like to collaborate to identify and implement existing best practice, including cloud-based resources, for STEM provision in schools, and such efforts should be encouraged to provide better opportunities for everyone.

Demand for such courses will need to be increased as well as advertising their supply. Stricter pre-requisites for related university or VET courses might also be imposed. Some students take school courses they believe are compulsory preparation for a university major, only to find that others at their first lecture did not take them. Studying chemistry at school, for example, is not always required for acceptance on a chemistry course at university, in part due to the lack of demand for such courses. If students received credit towards their university course for having studied the subject at high school, it would encourage more take-up in the school, and help create a culture where such choices were less an exception than the rule.

### ▶ **Better integration between secondary and tertiary education**

A wider set of reforms could encourage more coordination between all stakeholders.

A new national credit management initiative could take international qualifications and micro-credentials into account, for example, but AQF ranking of equivalent qualifications would be important, as NSW employees often demand 'HSC or equivalent' of job applicants. Attempts to define the HSC within the AQF have absorbed too much time in the past, as it involves a different combination of courses for each student, and any steps to expand the range of choice for students should be welcomed.

If universities gave more importance to individual high school subjects in entry requirements to relevant tertiary courses, students might be less tempted to study less valuable but easier subjects in the belief that this will increase their ATAR. These courses could be co-designed with input from the universities. A new HSC Science Extension course in NSW, for example, allows students to conduct interesting research projects with university researchers, which in turn is encouraging their universities to make early course offers to these students, regardless of their ATAR.



While education for younger age groups has been reformed, the secondary-tertiary border is still drawn on traditional lines dating from a century ago. The Taskforce considered whether universities and TAFE should restructure the first year of their courses, for example, to ease students' transition from senior secondary school. Current first-year lectures can see students who have studied the subject for years sitting next to those taking it for the first time, a situation which suits neither cohort.

State government education agencies also want to create better pathways for students looking to transition from high-quality VET institutions to further study at university. These transitions currently take place at Level 5 or 6 in the AQF, and there should be more ways for students to build on technical skills with more academic endeavours. While the levels in the AQF are merely descriptors, and it does not examine the content or sequencing of qualifications, the AQF Review panel appears to favour more recognition for preparatory courses. Encouraging universities to value VET qualifications in relevant domains can only benefit a wider range of students.

#### ▶ *School credits and micro-credentials*

While the government can issue policies on broader university admission criteria, VET credits for secondary school courses or similar ideas, those institutions will inevitably look for incentives, or at least good reasons, to accept them, as any change in current procedures will have administrative implications. Universities' acceptance of school credits declined in the past because they proved of limited value, for example, and the AQF panel acknowledges that their future use should be left to individual institutions to decide.

The gap between Year 12 HSC and first-year university courses remains significant, for example, which limits the use of school credits, although the size of this gulf can depend on the discipline. Taskforce members agreed that advanced maths, music and language proficiency at school could be directly relevant to initial university courses.

Micro- and short-form credentials are increasingly in vogue in the workplace and should be included in school curriculum reforms. Formal recognition for ongoing credit accumulation would encourage lifelong learning by recognising people's achievements throughout their working lives, as well as school, VET and university. Universities and TAFE are already breaking up their courses, and schools could follow suit if this can be accomplished in a sustainable and rigorous way.

While AQF policy should be revised to accommodate micro-credentials, there is no need for over-regulation, as many management and training courses are widely recognised within their spheres without being part of the AQF.



► **Improving career education in secondary schools**

The concept of careers advice itself will have to change, as the notion of a career for life is increasingly outdated, or at least can no longer be guaranteed. A deeper appreciation of a student's capabilities, interests and portable skills should open a range of possible jobs which they may explore through their working lives. Careers advice should furnish young people with the ability to change careers as well as choose them, and be supported by more technology and data to keep abreast of the vast, and fast-developing, range of choice available. Support from a range of new data-based career education support services, available 24/7 online, should become the norm for all involved.

Automated natural language analysis could sift the multitude of material published online to synthesise clearer choices and pathways for students, for example. The Joyce Review notes the plethora of websites offering advice and confusing consumers, and if data analytics technology can monitor and order such information more rationally, students and their families might make better choices regarding their courses and careers.

While automated cloud-based platforms will inevitably play a greater role in the future, any plans to improve career education will require more specialist staff already in short supply. This and other issues of implementation must be recognised in step with any recommendations for change.

The Taskforce agreed to continue discussions on career education<sup>36</sup> with a broader range of stakeholders and work together on specific recommendations for progress. While technology could make pathways easier for students to navigate, any new platform should support the needs of career education teachers, as well as offering useful information for students and parents.

A more coherent approach is required to the planning and delivery of career education in schools, including specialist training for career advisors in teacher training and additional funding for careers advice in schools. The second stage of the Taskforce could see its members working with the education departments of selected universities<sup>37</sup> to develop a curriculum for training specialist career teachers, e.g. a 'careers education diploma'.

Careers educators in NSW schools, for example, are currently expected to have some training in this area, but there is no career structure within it. The Taskforce noted that the NSW Government's policy on *Local Schools, Local Decisions*<sup>38</sup> would impact the ability of the State Government to mandate careers education programs in public schools.

The newly opened National Careers Institute, the National Careers Ambassador and executives of the new Australian Government's *Skills Match*<sup>39</sup> initiative could be interested in the Taskforce's proposal.

Schools find it difficult to connect careers advice with industry, and the Taskforce emphasised the need to improve these industrial connections. Hunter River High School is an example of success, and a consortium of aerospace companies including BAE Systems are now reaching out to schools to encourage student interest in relevant courses. Other industries could be encouraged to reach out to schools in this manner.

▶ **Future work streams for the GAP Taskforce**

Taskforce members discussed several ideas and proposals which could be developed and implemented in a second phase. These ideas could include credit for high school courses towards post-school degrees or training, a fresh model of careers advice, and a new mix of hands-on assessment and academic tests for all subjects to improve the esteem of vocational qualifications. The assessment of industry-specific capabilities and more general work skills within traditional subjects could also be considered, with Taskforce membership broadened to include employer and TAFE representatives accordingly.

A second phase could also see the GAP Taskforce plan ways to manage existing assets in career education and plan new support services. Promoting the use of 'career education' would in itself be a step forward, as it implies a more holistic approach than merely detailing the steps required to enter a particular job or profession. Planned in reference to the Joyce Review recommendations and the National Career Education Strategy, the Taskforce might offer a range of more efficient and effective ways to achieve generally agreed outcomes. These recommendations would not set another additional task for schools to complete, but make better use of existing time and resources.

## PROJECT PROPOSALS

### **HSC, Micro-Credentials and Improved Integration Between Senior Secondary and Tertiary Education**

The Terms of Reference for the NSW Curriculum Review include considerations of how the curriculum could be redesigned and presented to better support teaching, learning, assessment and reporting, as well as ways of enhancing the options and pathways for all students to further education and work.

The GAP Taskforce noted various unintended consequences of the current matriculation arrangements:

1. Students who wish to focus more on applied learning, yet also wish to keep their options open for university entrance, feel obliged to construct course of study for the HSC that has only one vocational (Category B) course, to be eligible for an ATAR.
2. Students are choosing subjects on the basis of how they think the scaling of their results will be translated into an ATAR, thus choosing subjects that they may not be interested in or necessarily good at.
3. Students are thinking about the content of their HSC subjects as simply a block of knowledge they have to master to maximise their ATAR, rather than a part of a continuum of learning within a discipline, a continuum that extends beyond the content of what they learn at school.

The Taskforce proposes the development of policies that extend the concept of recognition of prior learning (RPL) from the vocational to the academic aspects of the HSC, to allow more seamless matriculation to further study and to break down the dominance of the ATAR in the choices students make. This could work by giving higher education providers more incentive to offer 'advanced standing' or credit for certain first-year units in certain courses to students who, having met all other eligibility requirements for enrolment in that course, have achieved a certain level in relevant subjects in the HSC.

The Taskforce acknowledged that imposing a 'one-size-fits-all' approach for all institutions could be problematic, given differences between institutions and the fact that there already exists a wide range of criteria in admissions, credit and RPL processes. Government policy should therefore encourage individual institutions to expand the application of credit for school-level subjects in accordance with their institutional policies.

This would encourage students to see the courses they studied in the HSC as more than a ticket to an ATAR, but as a block of knowledge that was on a continuum of learning within a discipline. Students would be encouraged to choose

subjects that gave them advanced standing in the courses they wanted to do, rather than choosing subjects with the sole intention of maximising their ATAR, with all the unintended consequences for teaching and learning that this entails. Thus they would be incentivised to stretch themselves and take on more challenging levels in their HSC subjects, not play it safe on the ATAR.

This is already being done on a very small scale by some universities, who have entered into MoUs with individual schools, particularly for students who have done the International Baccalaureate, but this kind of arrangement should ideally be available to all students in all schools regardless of the credential they undertake.

The RPL principle is already working in relation to VET, with VET Certificates being issued for studies undertaken as part of the HSC, and which articulate into other AQF qualifications. The GAP Taskforce proposal would see this practice extended to non-VET subjects.

While this can be done voluntarily by tertiary institutions, what can government do to encourage more widespread use of this approach?

One approach, which would be costly, complicated, controversial and time-consuming to establish, but which could have longer-term benefits for equity and excellence once established, is for NESAs to work with tertiary education providers, subject associations, and the Australian Government to establish a set of micro-credentials that assign an AQF level to the achievement of certain bands in certain subjects in the HSC.

Students would be able to 'package' or tailor their various micro-credentials, including any VET Certificates, as evidence of a specific set of knowledge, skills and attributes when applying for courses or for jobs.

There may be other options for encouraging voluntary expansion of the RPL approach by universities with respect to the HSC. Perhaps market pressures for innovation will push in that direction in any case. The advantage of a more systematic approach is that it would facilitate equitable access to advanced standing, as the system would apply to all students in all schools. Universities would still retain autonomy and flexibility in their overall enrolment and credit-granting policy, but this system could be a way of encouraging wider use of the RPL principle in tertiary education, across both academic and applied learning.

The current university funding arrangements should be closely examined to ensure they do not actually present a disincentive to universities to give credit to school-leavers on the basis of their HSC results.

## Improving Career Education in Secondary Schools

Based on the Taskforce's deliberations, Global Access Partners now aims to bring together a multidisciplinary group of stakeholders to explore new models of career education in Australian schools to help students negotiate an increasingly complex range of post-high school options.

A 2018 Skillsroad Youth Census<sup>40</sup> of 30,388 Australians aged 15–24 found that only half of them were content with the quality of career advice during their schooling. A staggering 48% said they had received little meaningful career advice at school: 23% of them felt they had been pushed or encouraged to pursue an unsuitable pathway, and 22% wished they had known more about other options. An earlier Think Education survey of over 1,000 Australian workers aged 25–29 found that two thirds wished they had spent more time considering their choice of tertiary study or career.<sup>41</sup>

These alarming findings come at a time when concepts of a traditional career are rapidly evolving and after-school pathways to employment are more varied than ever before. Ensuring that school leavers have access to meaningful career advice and comprehensive information is therefore crucial to their future job prospects and Australian economic growth.

Calls for reform of career education have been made before, and both state and federal departments of education have developed policy frameworks to help schools improve their offerings.<sup>42</sup> The 2019-20 Federal Budget included the \$42.4 million funding provision to create a National Careers Institute and appoint a National Careers Ambassador.<sup>43</sup> A range of online platforms, such as *WorkReady*, are used by schools to support teachers by providing information on a variety of industries and careers. However, the time allocated to school career advisors appears to be decreasing, despite a growing need for their guidance and expertise.<sup>44</sup>

International data shows these problems are not unique to Australian schools. The scarcity of adequate career advice at British schools, for example, led the UK government to develop a Careers Strategy for Schools in 2017.

GAP's proposed 'Second Track' taskforce on *Improving Career Education in Australian Secondary Schools* will build on the recommendations of the GAP Taskforce on Youth Transitions to explore fresh models of career education in an increasingly complex and ever-changing environment. Participants will be sought from federal and state departments of education and industry, the newly established National Careers Institute and the National Careers Ambassador, major employers and industry partners, education providers, relevant research bodies and advocacy groups. The group's recommendations and an implementation strategy will be released in a final report.

## ASCKNOWLEDGEMENTS

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## ENDNOTES

All weblinks listed below were correct and live at the time of publication.

- <sup>1</sup> NSW Government Media Release, 14 May 2018; <https://education.nsw.gov.au/news/media-releases/nsw-launches-school-curriculum-review>
- <sup>2</sup> NSW Curriculum Review (2018), Terms of Reference; <https://nswcurriculumreview.nesa.nsw.edu.au/assets/docs/nsw-curriculum-review-terms-of-reference.pdf>
- <sup>3</sup> Gonski D et al. (2018), *Through Growth to Achievement: Report of the Review to Achieve Educational Excellence in Australian Schools*, March 2018
- <sup>4</sup> Recommendation 9 in the *Gonski 2.0 report* suggested the establishment of “a comprehensive, national and independent inquiry to investigate and review the objectives, curriculum, assessment provisions and delivery structures for senior secondary schooling, to report within 12 months.”
- <sup>5</sup> *Supporting senior secondary students on a pathway to the future*; Education Council Media Release, 8 August 2019
- <sup>6</sup> Council of Australian Governments (2018), National School Reform Agreement, page 22: “A (iii) Reviewing senior secondary pathways into work, further education and training”; <https://docs.education.gov.au/node/51606>
- <sup>7</sup> Joint Media Release by the Hon. Dan Tehan MP and Senator the Hon. Michaelia Cash, Work starts on qualifications framework review, 13 November 2018; <https://ministers.education.gov.au/tehan/work-starts-qualifications-framework-review>
- <sup>8</sup> Commonwealth of Australia (2019), Department of the Prime Minister and Cabinet, *Strengthening Skills*; <https://pmc.gov.au/sites/default/files/publications/strengthening-skills-independent-review-australia-vets.pdf>
- <sup>9</sup> Department of the Prime Minister and Cabinet Media Release, 2 April 2019, VET Review completed and final report delivered to Government; <https://www.pmc.gov.au/news-centre/domestic-policy/vet-review-completed-and-final-report-delivered-government>
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- <sup>11</sup> Ibid.
- <sup>12</sup> COAG Education Council Communiqué, 28 June 2019
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- <sup>14</sup> Department of Education (2018), Discussion Paper: Review of the Australian Qualifications Framework; <https://docs.education.gov.au/node/51926>
- <sup>15</sup> Ministerial Council on Education, Employment, Training and Youth Affairs, *Melbourne Declaration on Educational Goals for Young Australians*, December 2008; [http://www.curriculum.edu.au/verve/\\_resources/national\\_declaration\\_on\\_the\\_educational\\_goals\\_for\\_young\\_australians.pdf](http://www.curriculum.edu.au/verve/_resources/national_declaration_on_the_educational_goals_for_young_australians.pdf)
- <sup>16</sup> Department of Education (2019), *Future Ready: A student focused National Career Education Strategy*; <https://www.education.gov.au/national-career-education-strategy>
- <sup>17</sup> ACARA Illustrations of Practice; <https://www.australiancurriculum.edu.au/resources/primary-curriculum/illustrations-of-practice/>



- 18 Commonwealth of Australia (2019), Department of the Prime Minister and Cabinet, *Strengthening Skills*; <https://pmc.gov.au/sites/default/files/publications/strengthening-skills-independent-review-australia-vets.pdf>
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- 26 UAC 2019
- 27 The Group of Eight (Go8) comprises Australia's eight leading research Universities - The University of Melbourne, The Australian National University, The University of Sydney, The University of Queensland, The University of Western Australia, The University of Adelaide, Monash University and UNSW Sydney
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- 35 Federal budget 2019: Skills package to increase apprenticeship payments – by D. Marin-Gizman, *Australian Financial Review*, 2 April 2019; <https://www.afr.com/news/economy/federal-budget-2019-skills-package-to-increase-apprenticeship-payments-20190402-1o252g>
- 36 The proposed GAP Taskforce on Improving Career Education in Secondary Schools
- 37 University of Technology, Sydney and the University of Sydney were suggested

- <sup>38</sup> NSW Government, *Local School, Local Decisions*; <https://education.nsw.gov.au/our-priorities/work-more-effectively/local-schools-local-decisions>
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- <sup>40</sup> Skillsroad 2018 Youth Census Report; <https://www.skillsroad.com.au/youth-census-2018>
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- <sup>43</sup> Australian Government, Skills and Training Budget Overview 2019-20, National Careers Institute and Careers Ambassador; <https://www.employment.gov.au/skills-and-training-budget-overview-19-20>
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