



## The Lowdown

# on CTE Down Under

By John Gaal and Nicholas Wyman

**F**or more than a century, vocational education and training (VET), as career and technical education (CTE) is known as in Australia, has been a core tenet of workforce development for the country's traditionally and heavily industry-centered economy.

Respected internationally as a leading exponent of integrated and responsive training, Australia's VET sector has proven its ability to be adaptive and agile in supporting government priorities to establish young people in the workforce, while working with industry to develop future-focused skills training packages.

Despite its comparative maturity, the Australian VET sector is tackling many of the same pressures and issues as the United States, including skill shortages, hesitant employers, digital disruption pains and current training curriculum, all while trying to improve accountability. To understand how Australia has developed and is adapting, we asked a few of the country's thought leaders to identify the current key concerns "at the coalface."

### Skills Shortages

**Kristian McCarthy**

*General Manager Apprenticeship*

*Support Victorian Chamber of Commerce and Industry*

*Melbourne, Australia*

**Q:** For nearly a decade in the United States, employers and politicians have cited widespread shortages of skilled workers as hampering business growth, social mobility and community stability. A commonly heard assertion is that shortages could be resolved by educational institutions (K-20) doing more to give employers the confidence to hire entry-level workers. Meanwhile, many recent college graduates struggle to find work in their field of study. How is Australia addressing similar shortages? And, might low entry-level wages be a factor?

**A:** Australia has experienced fluctuations in skill shortages for many years, over different locations and industries, due to the changing nature of our economy. Current-



ly, shortages exist across a range of occupations and skill levels, including audiologists, civil draftspersons and technicians, optometrists, bricklayers, plasterers, chefs, and even hairdressers in some regional areas. Additionally, remote areas tend to experience more shortages when compared with their metropolitan counterparts.

In the past year, Australian average wages grew by a respectable 1.9 percent. Despite unemployment sitting stubbornly around 5.6 percent, employers continue to report difficulty in finding workers suitably skilled to fill advertised job vacancies. While in some fields the lack of a specific occupational qualification can be a barrier, another common impediment is an employer's belief that applicants may not be "work-ready," lacking soft skills such as effective communication, problem solving and the ability to work unsupervised.

Of course, there are gaps in Australia's vocational and higher-education systems between the standard, the type of training and what the industry needs from its workers. Australia's federal and state governments are rolling out a range of policies and programs to improve training quality and employment outcomes to try to reduce skill shortages by maintaining strong and clear pathways to employment and further education. They are also regularly reviewing funding models and course content to align what is being taught with what industry is telling us it needs.

## College- and Career-Readiness

**Javier Amaro**  
*Chief Executive Officer*  
*Insources Education*  
*Parramatta, Australia*

**Q:** For many years, U.S. educators have asserted that a college degree was essential for a stable career. However, recent studies<sup>1</sup> have shown that many college graduates are struggling to find employment in their field of study, and are taking on entry-level jobs in fields where their degree was not required.

What is the importance of ensuring postsecondary graduates are better prepared for the world of work? How is Australia addressing the need to balance the college- and career-readiness equation? And what role does CTE play in this matter?

**A:** The idea of having "job-ready" graduates has been a focus of Australian VET providers for the last 25 years. Our regulatory framework requires that training providers consult with industry about workplace outcomes, ensuring both currency of course content and delivery modes, and that students possess the ability to perform core and specific tasks under workplace conditions.

Industry consultation is an essential process to ensure course learning objectives are relevant to industry needs and that content is closely aligned with occupational standards.

By tracking industry consultations for more than 25 years, we have been able to identify and adjust to emerging and interesting industry trends: for example, during the last five to 10 years, we have seen that industry is looking for "skills-ready," rather than job-ready individuals. Because jobs and work processes are continually changing, businesses need individuals who can adapt.

Because of this, the Australian government is more concerned about individuals joining the workforce, rather than the type of employment they get after graduating from a postsecondary course; but the government recognizes getting people into training is the cheapest and easiest way to achieve this goal.<sup>2</sup>

In the future, I see the role of VET as ensuring vocational preparation courses are task-specific and provide students with the foundation to understand broader workplace processes.

To guarantee graduates will be skills-ready for the different jobs they will have in the future, VET providers need to continue to use innovative engagement strategies with industry.

## The Role of STEM

**Wendy Perry**  
*Head Workforce Planner*  
*Workforce BluePrint*  
*Happy Valley, Australia*

**Q:** In the United States, the role, function and scope of science, technology, engineering and math (STEM) is an ongoing contested debate. Many pundits believe the expanded teaching of STEM subjects and exposing students to projected STEM-driven workforce trends (*i.e.*, automation)

better position students, and their parents, to consider CTE pathways. What efforts have Australian educators and employers undertaken to embrace STEM?

**A:** With technological advancements, namely in automation, projected to eliminate a range of current jobs, it is accepted that a strong STEM curriculum is essential to prepare our students for the jobs of the future. A 2015 report from PwC estimated that Australia could lose \$57.4 billion in future GDP if it fails to train the workforce for the shift into more STEM-focused roles (Reading & Peake, 2015).

The Australian government is using a targeted strategy to boost the profile and understanding of STEM into classrooms in order to increase interest in STEM fields at the primary and junior secondary levels.

To leverage the power of STEM, however, we have to address current issues: Even though Australia's VET system has national training packages for most industry sectors, given the pace of innovation, the STEM components in current qualifications are often playing catch-up.

As qualifications are reviewed or developed in aiming to meet future job requirements, additional focus must be given to STEM-related content, as well as potentially shortening the review cycle to ensure course content is up-to-date. So, not unlike in some parts of the USA where STEM now includes arts and/or religion, in Australia we are integrating entrepreneurship.

Furthermore, there's a real challenge to attract and retain women in the STEM workforce. Schools have an important part to play in ensuring women have equal participation in STEM. Having visible female role models, which helps young women envisage themselves in STEM careers, is one part of the solution.

## Apprenticeships

**Gary Workman**  
*Executive Director*  
*Apprenticeship Employment Network*  
*Melbourne, Australia*

**Q:** Registered apprenticeship programs (RAPs) have been around in the United States since President Franklin Delano Roosevelt's New Deal. As the U.S. debate on escalating college debt lingers, the





“earn while you learn” apprenticeship model—being proven as a pathway to the middle class—still seems to have a stigma connected to it. In the United States, the Obama Administration invested significant funds and political energy into expanding and elevating RAPs: In 2015 alone, the United States invested more than \$170 million, often citing the Australian system, among others, as a model for the American states to work toward.

Briefly explain the evolution of the apprenticeship system in Australia, how it is viewed and the strategies in place to ensure it remains robust and relevant?

**A:** Australia’s apprenticeship model, originally based on Great Britain’s, combines paid employment with on-the-job training, allowing employers to source and train entry-level workers at wages commensurate with experience, as well as provide unskilled individuals, especially young people, paid work, training and experience. This model has traditionally been well-supported by government, unions, business and community groups, with governments providing financial incentives and rebates to businesses to take on young people.

The early 1980s saw the introduction of the group training system—a uniquely Australian concept whereby a skilled intermediary manages the specific workplace and hour requirements that come with hiring young and inexperienced people in order to improve transition and ensure they are supported through to completion of their training programs. As the economy tightened, this approach created greater flexibility for host employers and supported apprentices in regional communities.

By the mid-1980s, as the Australian economy transitioned from a heavy industry focus to services, the training system also expanded into traineeships for service professions such as business administration, IT, and health and community services. This also significantly increased female participation.

In the 1990s, a number of changes energized the system:

- Incentive payments to encourage greater employer participation.



- Flexible delivery models such as school-based and part-time apprenticeships and traineeships. (Now, programs featuring competency-based assessments allow individuals to learn and progress at their own speed.)
- Non-government training suppliers providing employers, apprentices and trainees choices to align teaching to workplace-specific requirements.
- Consistent national qualification and training standards and reciprocal recognition of trade qualifications between state governments.

The Australian apprenticeship system is, rightly, revered as one of the best in the world. Nevertheless, the sector must continue to improve its presentation and advocacy, system flexibility, and pathway options for both employers and individuals to ensure the system will support the development of the requisite skills by the next generation of innovative workforces.

## Teacher Externships

**Denise Madden**

*Evolving Teacher Project, People and Organisational Governance  
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**Q:** Due to an influx of U.S. federal funding over the past two years, terms like work-based learning and apprenticeship are becoming more commonly used, but they are sometimes misunderstood. Nonetheless, the full impact of this funding is yet to have a significant effect on CTE enrolments. Secondary-level guidance counselors, who have limited exposure to students, cannot alone boost CTE enrolments.

The challenge is to provide students with examples of how their classroom theory translates into skilled careers. On a daily basis, core subject matter teachers (K-20) tend to have the most exposure to students but often lack real-world experiences of local workplaces. How has Australia addressed the issue of teacher externships? What are the benefits and limitations of this approach?

**A:** Within the VET sector in Australia, we have the concept of “return to industry,” which is similar in nature to the teacher externship idea. The key differences appear to be the mindset with which people engage in these activities and the breadth of activities that are seen as relevant. It is clearly identified in our regulatory standards that VET teachers need to maintain their connection with and fluency in industry practices, in terms of the design, delivery and assessment of VET qualifications, as well as their own personal skill set.

There is leeway within the standards and the training packages for industry to define what suitable industry experience looks like. Teachers are required to keep a record of their ongoing development, commonly referred to as the trainer skills matrix, which covers industry and VET pedagogy skills.

For Australia, the pendulum has swung toward industry. This means VET teachers are often employed for their industry skills rather than they are required to achieve a minimum qualification in VET delivery. Previously, they were required to have a teaching qualification, then acquire the industry skills. The ideal position is probably for equal relevance and weight between industry skills and VET pedagogy.

My personal opinion is that adding a practical context to education makes it more accessible and relevant to the audience, regardless of level of delivery. My organisation delivers a degree to VET business students where the grade profile is consistently higher than in the broader (higher ed) student cohort, and, naturally, the relevant university queries what is behind this result.

I think one of the answers is most of our students are mature and in career-role employment, so their engagement level is different. However, I do believe the applied or situational learning approach we take to delivering and contextualizing the materials we are given by our university partner make a real difference.

## Conclusion

The CTE sector in Australia is not without its issues: as in the United States, improv-

ing teaching quality and program completions are perennial challenges. However the system has proven itself to be adaptive and agile in responding to changing industry and workplace needs.

With so many passionate advocates determined to ensure the system remains relevant and accessible, it is poised to continue to provide young people a way into the workforce and mature Australians a pathway to retrain and re-skill, delivering real, cost-effective training and employment outcomes for governments, businesses and individuals. **Tech**

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## REFERENCE

- Reading, M., & Peake, T. (2015, April 30). *A smart move: Future-proofing Australia's workforce by growing skills in science, technology, engineering and maths (STEM)*. Retrieved from <http://www.pwc.com/gx/en/industries/government-public-services/public-sector-research-centre/australia/smart-move.html>

## ENDNOTES

1. Some of these studies include: *From Hard Times to Better Times* by Anthony P. Carnevale and Ban Cheah; *Failure to Launch: Structural Shift and the New Lost Generation* by Anthony P. Carnevale, Andrew R. Hanson, and Artem Gulish; *The Class of 2016* by Teresa Kroeger, Tanyell Cooke and Elise Gould.
2. In November 2016, the National Centre for Vocational Education Research showed in the report *The Young People in Education and Training 2015-Australia* that 84 percent of individuals who completed a CTE program were working within six months.