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**Submitted to:** The Independent review into regional, rural and remote education, Department of Education and Training, Australian Government

# TAFE Directors Australia submission to Independent review into regional, rural and remote education

Dear Professor John Hasley,

This response for the review undertaken has been developed by TAFE Directors Australia in consultation with a significant number of TAFE institutes from regional, rural and remote regions of Australia. A number of TAFE institutes may present individual submissions at the same time as this collective view. We will not necessarily respond to all questions since some are not directly relevant to TAFE Institutes but we will address the questions outlines in Appendix 1.

# Introduction

## **TAFE Directors Australia**

TAFE Directors Australia (TDA) is the national peak body representing the interests of all of Australia’s publicly funded TAFE institutes. In 2015 TAFE institutes across Australia enrolled more than 2 million students in over 2000 locations. Despite increasing privatisation of vocational education and training (VET) TAFE remains the dominant provider of VET across most of Australia’s core skilled occupations, and with major Australian industry.

TAFE institutes are prominent regional institutions. As both major employers and training providers, regional TAFEs have long been embedded in local communities and understand local business needs and opportunities. Regional TAFEs are the major providers to indigenous Australians and play a crucial role in community sustainability.

Regional TAFE Institutes put employment opportunities in the grasp of rural and regional Australians by responding to industry demand for skilled workers in regional locations (eg agriculture, mining). TAFE’s prominence is accompanied by high community expectations for regional social and economic leadership and a responsibility to build local skill for local businesses. TAFE provides access to VET, tertiary education and pathways to employment in these areas for young people leaving school, for existing and retrenched workers, and for people who have left school with no qualifications. TAFE provides access to VET, tertiary education and pathways to employment in these areas for young people leaving school, for existing and retrenched workers, for students disengaged from education, and for people who have left school with no qualifications. Many of these students do not have the means or support to travel to metropolitan centres to continue their studies and/or to maintain currency of skills and qualifications.

Regional TAFE Institutes seek to lift aspiration, remove barriers to education and be instrumental in closing the gap on employment outcomes for Indigenous Australians in regional Australia. Despite lower attainment and lower socioeconomic status, students from regional Australia often succeed in higher education at a rate similar to higher SES students (Gale and Parker 2013).

In Australia’s regions industry diversity may be high, population densities are low and geographical spread is wide. High quality, efficient training provision in these regions requires close cooperation between TAFE, industry, community agencies and services, other training providers, and with local businesses. By necessity, regional TAFE Institutes maintain multiple small campuses, support small student cohorts and travel to remote areas to service local communities and businesses. While they are increasingly delivering quality blended learning programs to reach their students, the ability of students to undertake distance programs (ie low literacy or digital literacy, lack of access to technology or internet service and low demand for training) can mean financially unviable learning programs in thin training markets.

Disadvantages seen in accessing and completing further education for regional, rural and remote students is a complex issue. The multi-faceted problem includes lack of motivation from parents and students, lower SES, poor retention in secondary school, academic achievement and costs associated with living away from home as well as the sense of dislocation and isolation (Lamb, Jackson, Walstab and Huo 2015). Over a third of young adults gain the opportunity in city areas to enter further studies, whereas students from regional, rural and remote are far fewer (7 – 13%) depending on their location.

Differences in access to tertiary study are partly linked to how well students do in school. Transition from Year 12 to further study is intrinsically linked to the level of senior secondary certificate achievement, due to the gatekeeper role that Year 12 assessment plays in entry to higher education. Even if young people from regional, rural and remote areas enter further studies they are more likely to enrol in basic-level VET courses at Certificate II and I. These low level courses are below the threshold of Year 12 equivalence and young disadvantaged adults are not entering vocational training at the same certificate level as their more advantaged peers. In addition, course completion rates for lower Australian Qualification Framework (AQF) level VET courses are much lower than for higher-level VET courses. Among fulltime VET students aged 25 years and under with no post-school qualifications, the completion rate for those commencing a Certificate I course is estimated to be 18.9 per cent, compared to 46.8 per cent for those commencing a Diploma course (NCVER Students and Courses 2014

(VocStats), 2014). Furthermore, despite a higher availability of vocational job roles, and at times higher earning capacity of these roles relative to roles which require a degree, the majority of career advise pushes students towards University.

There are other consequences of a reduced opportunity to take on further education. Police and prison statistics indicate that the bulk of crimes are committed by people from low socioeconomic backgrounds with limited formal education. Extended education is negatively associated with early family formation, child abuse and neglect, and unemployment *(*Vinson, Rawsthorne, Beavis and Ericson 2015).

Therefore, TAFE institutes are important organisations that build skills and knowledge for young people but in particular for disadvantaged and disengaged youth in regional, rural and remote areas. This is achieved by providing young people with the confidence to build their knowledge and skills through a supportive and encouraging learning environment beyond secondary school in order to increase their chances of obtaining meaningful and rewarding work.

# Response to questions

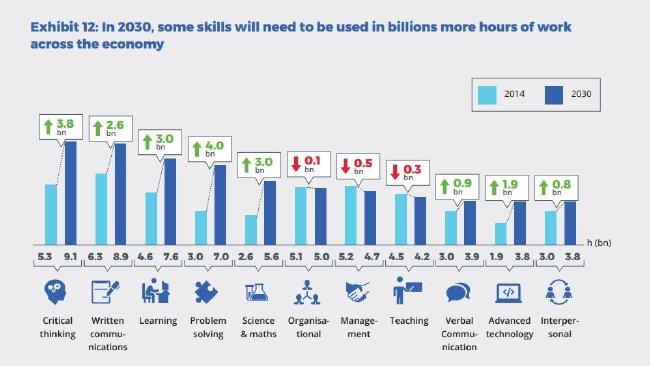
# 6.1.1Is the Australian Curriculum meeting the learning needs and interest of regional, rural and remote students?

**Response:** Since poorer outcomes in accessing tertiary education are often seen in regional, rural and remote youth, it is imperative that they be given every opportunity to succeed. A recently released report has identified the future trends in work for young people. The report *The New Smarts – Thriving in the New Work Order The Foundation for Young Australians 2017* has identified the need for all young people to be ready for the ‘non- routine’ industries and jobs which require innovation, creativity, problem solving, relationship building and responsiveness to change. Other researchers back this up (Torii and O’Connell 2017). Even at entry-level roles, employers are demanding and paying a premium for transferrable enterprise skills.

*‘Demand for digital skills went up 212 per cent over three years, while critical thinking increased 158 per cent, creativity increased by 65 per cent and presentation skills by 25 per cent.’*

(The New Work Smarts – Thriving in the New Work Order 2017)

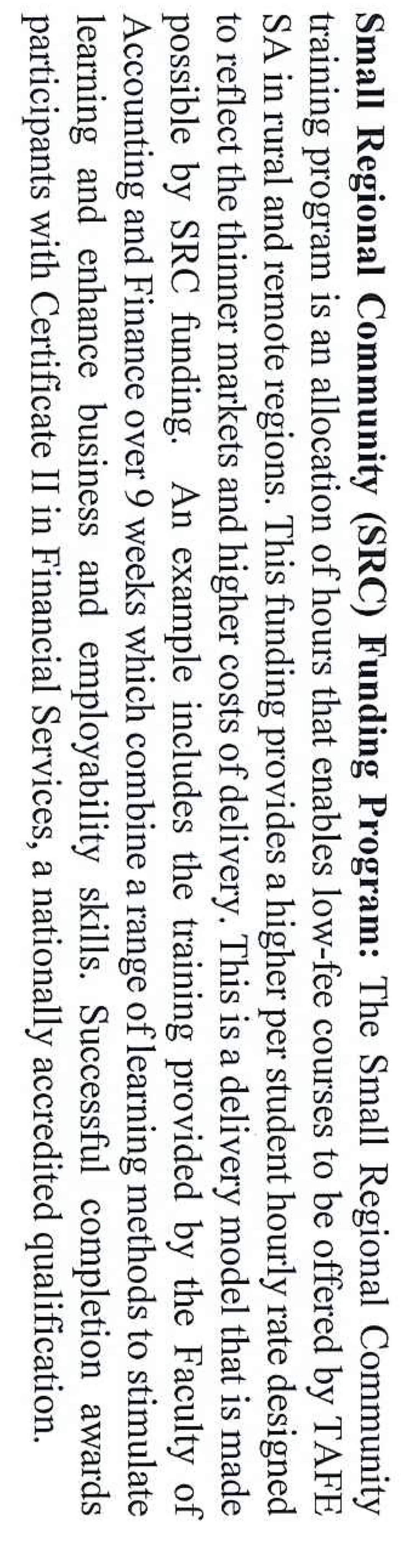
Greater focus should be spent on developing and assessing these skills in young secondary students as well as at tertiary level to better prepare them for the work of the future.



Source: The New Work Smarts – Thriving in the New Work Order, 2017

Furthermore the skills required in the future in most industries are very different from those being taught in the current curriculum. Work by the Foundation for Young Australians shows that “ the demand for enterprise skills is on the rise, with presentation skills, creativity, critical thinking and digital linking rising sharply”.

At TAFE SA a number of initiatives have assisted regional, rural and remote areas to deliver low fee courses offered by TAFE. The example below is an indication of what is possible.



# 6.1.2 Do current assessment processes help to improve the achievements of regional, rural and remote students?

As a result of the use of ATAR scores in the final years of school, the focus of assessment is very narrow. It should be noted that a university education is not a good fit for all young school leavers and may not be relevant in some jobs (Torii and O’Connell 2017). In fact each year, over a quarter of young people (approximately 80,000 students) do not complete year 12 or equivalent (Lamb et al., 2015). The narrow focus in assessment in the final years discourages those students who are not interested in a university degree but may be interested in a more ‘hands-on’ practical learning environment, such as TAFE. Unfortunately, for many career advisors in secondary schools and parents even in regional, rural and remote areas, a VET course may seem to be a second or less preferred option to university. This mindset needs to be addressed if we are to provide greater opportunities for young school leavers and to enhance their chances of furthering their education. So current assessments do not improve the achievements of regional, rural and remote students. A greater reliance on partnerships with the community, TAFEs, business and industry in secondary schools could develop an assessment mechanism which might be able to better facilitate more relevant and meaningful engagement of students in their final years.

# 6.2.4 What innovative approaches could be taken to support a high quality teaching workforce for regional, rural and remote school communities?

Central Queensland University (CQU) is a regional dual sector university and is particularly well-placed to ensure the offering of the full spectrum of qualifications across the Australian Qualifications Framework and to meet regional, rural and remote skills demands.

Dual sector institutions like CQU offer extensive certificate and diploma vocational education and training programs in addition to higher education programs. This ensures that regional, rural and remote school students have an opportunity to achieve quality learning outcomes and careers as they move seamlessly between secondary and tertiary education (both VET and Higher Education) without having to relocate to metropolitan areas, thus avoiding the ‘brain drain’ so often cited in research around regional education and economic development. Dual sector universities also have a strong potential to work with Regional TAFEs to articulate VET graduates into Higher Education degree programs should they choose to study further. This TAFE Institute offers:

* Regional undergraduate teacher education scholarships;
* Teacher access to scholarships for relevant post-graduate qualifications;
* Teacher access to high quality professional development that THEY have identified;
* Recognition of quality teaching service in regional, rural and remote communities.

# 6.3.1 What needs to occur so regional, rural remote principals can devote most of their time and attention to student achievements in and beyond school?

**Response:** The development of partnerships with the community, TAFE, business and industry for the benefit of students is critical in regional, rural and remote regions. In a recent report by TDA *(The Regional Paradox – Undersupply of skilled workers and over representation of unemployed and disengaged youth* 2015) it became clear that schools play a major role in educating young people about the opportunities for either work or further studies in their region. As a result, recommendations included:

* support for government initiatives designed to encourage youth training for employment in skill shortage occupations in regional industries;
* developing courses and programs which provide training, mentoring support and recruitment pathways to

sustainable employment in the region;

* developing strong networks with local employers and industry so as to establish place based models where employers and industry input into the planning of training activities and programs that ensure a pipeline of robust and transferrable skills for local individuals seeking employment;
* piloting programs which focus on job streams and career vocations, where the focus is midway between the generalist educational activities of school and the highly targeted and jobs specific outcomes of Vocational (training package led) qualifications (The Regional Paradox 2015)

An example of a very successful collaboration, which could be duplicated for regional, rural and remote schools, can be seen in the recently established Victorian TAFE Association Regional TAFE collaboration Project which is designed to ensure that all regional and rural TAFE institutes work collaboratively to establish greater efficiencies and more productive outcomes for each of their students, staff and organisations. This collaboration has received significant funding from the Victorian State Government to undertake a range of projects. Principals of schools could be supported to establish a similar collaboration to encourage exchange of ideas, resource development and other efficiencies.

# 6.4.1 What new and innovative approaches are you aware of that improve the connection between schools and the broader community?

**Response:** In Victoria, ***Skills and Jobs Centres*** in regional areas have been able to provide an exciting ‘shop-front’ for young people to access information, career advice and enrolment opportunities for all levels of training. Funded by the Victorian Government, these walk-in centres offer a range of support services for individuals and businesses tailored to meet the needs of local communities and local industries. Though the individual Centres are locally focused, they are connected, meaning local Skills and Jobs Centre can link young people into the Centre or TAFE that best suits their particular training needs. Skills and Jobs Centres work with individuals, schools, industry, business and community to provide new, and strengthened, links to TAFE. In addition, they provide access to information on employment trends, industry areas with skills shortages and employment opportunities.

At Swinburne University in Melbourne, a number of programs are available through partnerships with secondary schools and students including the Brain STEM Challenge, the Conocophillips Science Experience which is run throughout Australia, In2 Science – Science peer mentoring in schools, Spark Engineering Camp and National Science Week (Swinburne Community Partnerships 2017).

It is important to assist local schools through:

* the provision of employment information related to employment in local government and within local industry;
* the provision of resources aimed to upskill career advisors in secondary schools and create better linkages between schools and local industry to ensure that they provide the best possible advice to students appropriate to the region;
* harnessing community and business leaders to encourage the retention of students and advise on options for school leavers;

# 6.4.3 Are there untapped priorities in rural and remote settings which, if utilised, could help students realise their potential?

**Response:** One of the main findings of the *TDA Regional Paradox* (2015) report was the lack of local information around future industry trends and needs in these regions. As a result it was recommended that the Australian Government Department of Education and Training, in conjunction with Regional Development Australia, provide the funding and infrastructure support required for the development of regional Workforce Development strategies to inform future investment and activity in the skills and training sector, including a 3–5 year regional local market needs analysis, concentrating on the major industries for regional Australia such as manufacturing, agriculture, health and social services, tourism and construction.

This type of information would provide job seekers, industry and educational organisations the knowledge to be able to advice and recommend the types of opportunities available in the local region for specific jobs in the future. Although some of this information is broadly available through the Labour Market, Information Portal of the Department of Employment little analysis is undertaken for specific regions to assist regional, rural and remote areas (Australian Government Department of Employment, 2016).

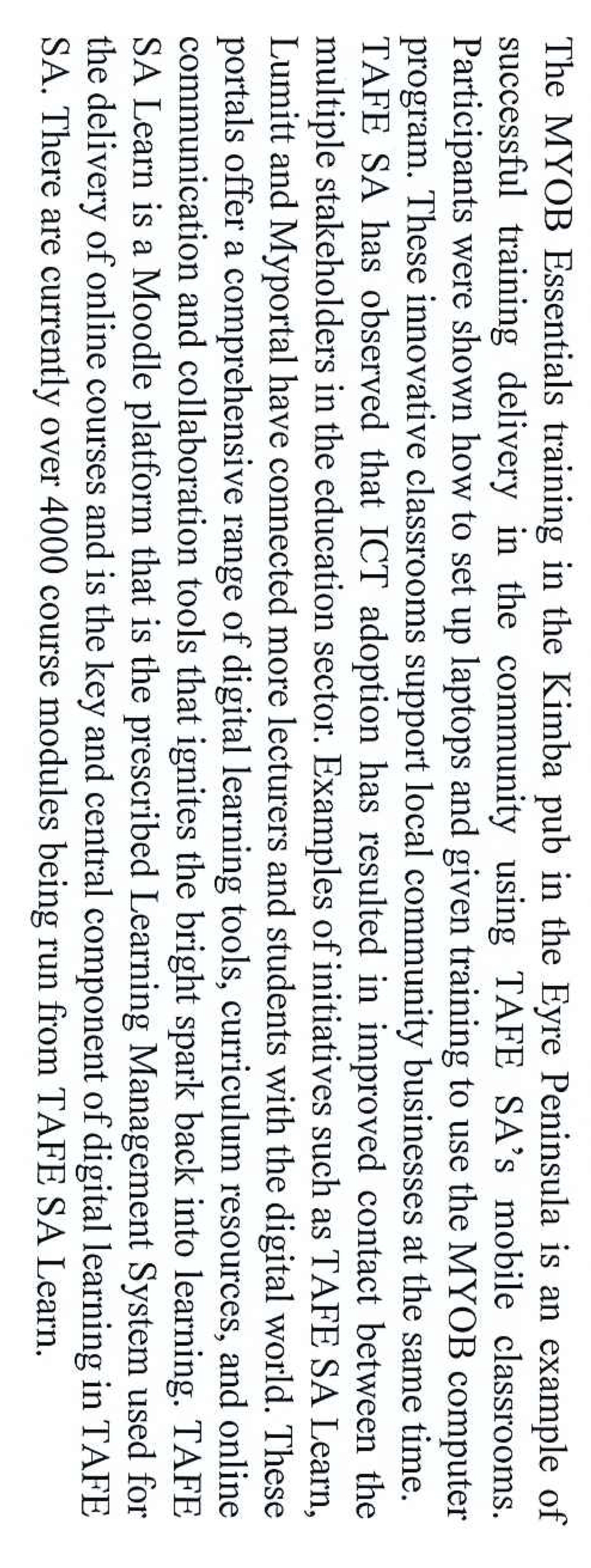
# 6.4.4 What role does/could the philanthropic sector play in improving outcomes for regional, rural and remote students in relation to school achievement and post— school transition?

**Response:** Numerous place-based examples exist in regional, rural and remote schools where local employers or community groups provide scholarships and supports to assist students in education. However this is not systematised and is often driven by local family connections rather than individual student need or merit.

# 6.5.3 What are the main barriers to regional, rural and remote schools realising the full potential benefits of ICT?

**Response:** The main barrier relating to ICT is reliable and fast internet connectivity, which is compounded by limited access to technology. Additionally students from low SES backgrounds face additional barriers based on means.

TAFE SA has developed an innovative program to assist local communities to have greater access to ICT through mobile classrooms. See the example below:



# 6.5.4 What kinds of support would be needed for a school or group of schools to specialise in entrepreneurial education?

**Response:** Teacher education focussed around the process of successful innovation is imperative. Innovation is a process which requires new ways of thinking and teaching and will involve the concepts of systems thinking, critical thinking, problem solving, working in partnerships and teams and will ensure that the teacher becomes the facilitator rather than the expert. This is the recommendation from the work undertaken by The New Work Smarts – Thriving in the New Work Order report, 2017. The school will also need to be linked through effective partnerships to TAFE Institutes, universities, business and community for best outcomes (The New Work Smarts 2017).

# 6.6.4 What gaps need to be addressed to help students transition successfully to further study, training or work?

**Response:** Many of these gaps have been addressed in other responses in this submission but the following is a summary response:

* more meaningful and focussed advice provided to school leavers about the benefits of further education and the provision of resources aimed to upskill career advisors in secondary schools and create better linkages between schools and local industry to ensure that they provide the best possible advice to students appropriate to the region
* developing programs which provide individualised (case management) support for high-risk young people transitioning from school
* Accurate career advice to ensure students select a relevant pathway;
* Pathway details and opportunities across the AQF spectrum;
* Mentorship programs for first year students
* provision of teacher education focussed around the process of successful innovation is imperative
* provision of better analysis of the job market in the regions to encourage young people to address the skills shortages in their area through further appropriate study
* access to less complex funding opportunities for young people living in regional, rural and remote areas to be able to travel, have access to accommodation, mentoring and adequate living expenses
* exploring and implementing projects that support young people to develop employability and entrepreneurial skills such as the concept of ‘start-up ‘ companies.
* harnessing community and business leaders to encourage the retention of students and advise on options for school leavers;
* supporting TAFE Institutes to work in partnership with schools to provide Vocational Education and Training programs for school students, including high quality work exploration/vocational placements
* developing strong networks with local employers and industry so as to establish place based models where employers and industry input into the planning of training activities and programs that ensure a pipeline of robust and transferrable skills for local individuals seeking employment

rebuilding of the VET sector through increased funding particularly for TAFE which has demonstrated its commitment to quality and beneficial outcomes for students

* a strong marketing and promotional campaign by the Federal Government to rebuild the confidence in the VET sector as a viable and exciting alternative to university
* VET funding models should explicitly recognise the true costs for regional TAFE Institutes in meeting community and industry expectations for high quality training in thin regional markets.

# 6.7.2 What could be done to expand the opportunities available to regional, rural and remote students to access high quality education?

**Response:**Issues of quality, affordability and poor outcomes have plagued the VET sector more recently. This is particularly so as a result of the dubious nature of a number of prominent private providers over the past few years. The TAFE sector’s reputation has also been affected by this even though it is generally seen as much more trustworthy providing quality training and better outcomes. As a result of these reputational issues and a lack of investment in VET, the VET sector has seen declining outcomes with a significant drop in the proportion of graduates indicating their VET course has improved their employment outcomes (66.8% in 2006 down to 58.2% in 2015).

Areas of study that have a more vocational focus – whether studied through VET or university – tend to lead to better employment outcomes. Fewer students in generalised courses, such as computing and information systems, humanities, culture and social sciences, agriculture and environmental studies, find employment after graduation (Tonii et al 2017). Of the almost 1 million new jobs to be created in Australia between 2016 and 2020, around 483,000 of these jobs will require a bachelor degree or higher and around 438,000 will require a VET qualification (Australian Government Department of Employment, 2016).

However, the decline in investment in the VET sector means that young people may not be adequately skilled or equipped to take advantage of the growth in the economy (Noonan 2016). Students in the final 2 years of secondary school are often considering their future. We need more meaningful VET training in schools which allows for greater flexibility such as through the use of Skills Sets which could be designed for a particular cohort of students with a ‘real’ job outcome as a focus. This will also provide young people with an entry into the VET sector, which may encourage them to take on further study. Training Packages (TP), the backbone of the VET training system, are still considered by many the best approach and are strongly supported (Australian Government, Department of Education and Training Outcomes of the review of training packages and accredited courses, 2014). However, many also indicated that there were too many qualifications that TPs are too complex and that skills sets were useful and should be better acknowledged.

Small ‘start-up’ companies could be established with TAFE Institutes in partnership with local schools and aligned with the National Curriculum which would be a much more meaningful learning environment for regional, rural and remote students. This also has the potential to provide skills and knowledge required for the future of work.

Many tertiary courses run through TAFEs and universities provide a flexible learning environment where a large percentage of study and learning is achieved on-line. In addition, regular workshops are held to bring students face-to-face with other students and their teachers. This model have been working very successfully for over a decade and should be further supported and encouraged through scholarships and access to funding that is not too complex.

Market research in the local regional area should be able to identify where the greatest need for jobs will be in the following 5 years, and this would then inform the type of learning in the last 2 years of schooling and beyond school. In addition it is important to provide a combination of academic and vocational streams in concurrency and not as separate streams for students. This will provide greater opportunities for students once they leave school.

School career councillors should also be closely linked to the tertiary educational institutes in the region. These linkages can ensure that students receive clear and focussed advice about the many opportunities for study and work in the first few years post secondary school. School career councillors should also undertake regular training and upskilling to better understand the opportunities available to young school leavers.

As a result we need greater investment in TAFE Institutes, while building the reputation of vocational education to a point where this type of education becomes as meaningful and respected as university education. This has been achieved in the Netherlands where vocational colleges are now named Universities of Applied Sciences and they have been given the ability to undertake not only teaching and training but applied research (About Dutch Universities 2017).

In addition to greater investment in TAFE at the regional, rural and remote locations, young people need support to be able to study outside their regions when the educational institutes are not immediately available. This means that there will be a need for

* developing programs which provide individualised (case management) support for high-risk young people transitioning from school.
* providing financial resources in regional areas, acknowledging the additional cost burden, and reduction in social support, placed on rural and remote students who must relocate to study.
* reviewing current policies and removal of system barriers where aged based funding ‘cut-offs’ act as a barrier to effectively supporting students to achieve employment pathways.
* the provision of financial and administrative support to enable the development of regional partnerships between secondary schools, training providers, industry and community organisations to facilitate successful outcomes for youth and industry.
* exploring and implementing projects that support young people to develop employability and entrepreneurial skills such as the concept of ‘start-up ‘ companies.
* supporting TAFE Institutes to work in partnership with schools to provide Vocational Education and Training programs for school students, including high quality work exploration/vocational placements(The Regional Paradox 2015).

# 6.8.1 Noting the findings of the Red dirt education project, what do you consider to be the purpose/role of education in remote communities?

**Response:** TAFE SA has significant diversity in its student cohort. Close to 3000 students are identified as Aboriginal and Torres Strait Islanders and these students are provided support through TAFE SA’s Aboriginal Access Centre (AAC). TAFE SA also delivers training in the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands. Training is delivered across six community sites and at the APY trade-training centre that focuses on foundation literacy and numeracy skills (TAFE SA Strategic Plan 2016 – 2019).

In these regions, any form of education and training will need to be relevant and meaningful to its students for effective engagement by students and useful outcomes for students such as work. This is in part because the effort required to undertake this training (travel, costs, leaving family etc) must be seen as worthwhile.

# 6.9.1 Are there changes that should be made to education, training and employment policies and practices which would improve post school opportunities for regional, rural and remote young people?

**Response:**The future of work requires students to have a clear set of employability skills. The VET sector has incorporated employability skills for over a decade now but although these capabilities have been included in training packages, they are rarely if ever assessed in a systematic way. Through the Chicago Public School system, a Framework has been established which assesses these skills on three levels – applied knowledge, effective relationships and workplace skills. The outcome has seen a significantly high rate of students entering the workplace at graduation (Chicago Public Schools, Employability Skills Framework 2017).

There are a number of models of workplace learning in secondary schools in Australia including VCAL (Vic), Work Studies (NSW) and Workplace Learning (WA) but it may be time to review and evaluate the overall benefit to students and employers of these programs since assessment methods can be quite varied. This evaluation should include clearly defined new 21st Century employability skills and should include a more standardised testing and assessment regime (Ithaca Group, 2016).

The development of specific ‘Skills Sets’ (rather than full Training Packages) designed in partnership with TAFE institutes and industry to ensure appropriate and necessary job opportunities for young people would ensure more immediate outcomes for both young people and industry. Work placements should be a strong focus for this type of learning and will require local industries and businesses to work more closely with TAFE to provide successful outcomes. This will require incentives and resources not just for business and industry but also for TAFE institutes.

New apprenticeships were first introduced in Australia in 1985 and provide learning that is deeply embedded in the workplace. The future of work will require complex skills and knowledge while at the same time necessitating the ability to undertake practical, hands-on and innovate designs in the new emerging world of technology, engineering and health. In the UK, degree apprenticeships in the non-traditional areas (such as technology, health, banking and digital design) are being explored. This approach involves employers, training colleges, universities and professional bodies in designing new programs with a strong employment outcome. In addition, ‘Trailblazer Apprenticeships’ have been introduced which significantly change the design of apprenticeships by allowing employers to create apprenticeships which suit their particular needs (Delebarre 2015). This model has also been highly successful in Europe. (Universities and Colleges Admissions Service (UCAS). (2017). Further work needs to be undertaken to understand to support the costs of moving to undertake studies.

# 6.9.3 What can be done to address the directional flow of regional, rural and remote students moving to cities for further education and/or training?

**Response:** Regional and ruralTAFE institutes provide regular information sessions and ‘open days’ to encourage parents and prospective students to see the types of opportunities which are available. Although this might seem to provide easy access to information, many people who have had little or no formal tertiary education might find the idea of visiting an institution as daunting. As a result, it may be necessary for tertiary educational institutes to provide the information at diverse locations in shopping centres, community centres and local festivals or events to name a few.

However, this process of encouraging young people and their parents to better understand the benefits of further studies must come as early as year 9 and 10 in secondary schools. Many young people in regional, rural and remote areas may not complete year 11 and 12, so the years prior to this must be engaged in this discussion.

More flexible arrangements could also be developed to ensure that young people stay in their regions to study which include:

* flexible learning through ICT with regular face-to-face workshops

individual mentoring programs for students at risk and who may live remotely

* identifying job and further study opportunities through programs such as the ‘Skills and Jobs’ centres in Victoria.

# Appendix 1 – Questions responded to

6.1.1 Is the Australian Curriculum meeting the learning needs and interest of regional, rural and remote students?

6.1.2 Do current assessment processes help to improve the achievements of regional, rural and remote students?

6.2.4 What innovative approaches could be taken to support a high quality teaching workforce for regional, rural and remote school communities?

6.3.1 What needs to occur so regional, rural remote principals can devote most of their time and attention to student achievements in and beyond school?

6.4.1 What new and innovative approaches are you aware of that improve the connection between schools and the broader community?

6.4.3 Are there untapped priorities in rural and remote settings which, if utilised, could help students realise their potential?

6.4.4 What role does/could the philanthropic sector play in improving outcomes for regional, rural and remote students in relation to school achievement and post— school transition?

6.5.3 What are the main barriers to regional, rural and remote schools realising the full potential benefits of ICT?

6.5.4 What kinds of support would be needed for a school or group of schools to specialise in entrepreneurial education?

6.6.4 What gaps need to be addressed to help students transition successfully to further study, training or work?

6.7.2 What could be done to expand the opportunities available to regional, rural and remote students to access high quality education?

6.8.1 Noting the findings of the Red dirt education project, what do you consider to be the purpose/role of education in remote communities?

6.9.1 Are there changes that should be made to education, training and employment policies and practices which would improve post school opportunities for regional, rural and remote young people?

6.9.3 What can be done to address the directional flow of regional, rural and remote students moving to cities for further education and/or training?

# References

About Dutch Universities 2017 last accessed July 2017 http://www.studyinholland.co.uk/about\_dutch\_universities.html

Australian Government Department of Employment, 2016 Employment

projections. Last accessed July 2017 http://lmip.gov.au/default.aspx?LMIP/EmploymentProjections

Australian Government, Department of Education and Training, Outcomes of the review of training packages and accredited courses, 2014, last accessed July 2017 https://www.education.gov.au/outcomes-review-training-packagesand-accredited-courses

Chicago Public Schools, Employability Skills Framework 2017, last accessed

July 2017 http://cte.ed.gov/employabilityskills/index.php/profiles/profile\_chicago

Delebarre, J. (2015). Apprenticeships Policy, England 2015.last accessed July 2017

http://researchbriefings.parliament.uk/ResearchBriefing/Summary/SN03052#f ullreport

Escalier McLean consulting, *The Regional Paradox – Undersupply of skilled workers and over representation of unemployed and disengaged youth* (2015) last accessed July 2017 http://www.tda.edu.au/resources/Report%20%20Regional%20Paradox.pdf

Gale T and Parker S, 2013, *Widening Participation in Australian Higher Education,* CFE Consulting: Leicester, UK, page 23 Last accessed July 2017 http://www.ncsehe.edu.au/wpcontent/uploads/2013/10/2013\_WPeffectivenessAus.pdf

Lamb, S, Jackson, J, Walstab, A & Huo, S (2015), *Educational opportunity in*

*Australia 2015: Who succeeds and who misses ou*t, Centre for International

Research on Education Systems, Victoria University, for the Mitchell Institute, Melbourne: Mitchell Institute, last accessed July 2017

http://www.mitchellinstitute.org.au/wp-content/uploads/2015/11/Educationalopportunity-in-Australia-2015-Who-succeeds-and-who-misses-out19Nov15.pdf

Ithaca Group, 2016, Everybody’s Core Business – Supplementary Report: Findings from the literature last Accessed July 2017 https://cica.org.au/wpcontent/uploads/everybodys\_core\_business\_-\_supplementary\_report.pdf

NCVER Students and Courses 2014 (VocStats), ABS Census of Population & Housing 2011, ABS Australian Demographic Statistics (2014) last accessed

July 2017 https://www.ncver.edu.au/\_\_data/assets/pdf\_file/0031/59584/TotalVET-students-and-courses-2015.pdf

Noonan, P. (2016). *VET funding in Australia: Background trends and future directions*, Mitchell Institute, Melbourne. Available from: www.mitchellinstitute.org.au

TAFE SA Strategic Plan 2016 – 2019 Last Accessed August 2017 https://www.tafesa.edu.au/docs/default-source/about\_tafesa/tafe-sa-strategicplan-2016-19.pdf?sfvrsn=2

The New Work Smarts – Thriving in the New Work Order The Foundation for Young Australians 2017 last accessed July 2017 http://www.fya.org.au/wpcontent/uploads/2017/07/FYA\_TheNewWorkSmarts\_July2017.pdf

Torii, K. and O’Connell, M. Preparing Young People for the Future of Work.

Mitchell Institute Policy Paper No. 01/2017. Mitchell Institute, Melbourne.

Available from: www.mitchellinstitute.org.au

Swinburne - Engaging Schools 2017 last accessed 2017 http://www.swinburne.edu.au/business-partnerships/explorepartnerships/community-partnerships/engaging-schools/

Universities and Colleges Admissions Service (UCAS). (2017). Degree and professional apprenticeships. Retrieved from

https://www.ucas.com/ucas/undergraduate/getting-started/apprenticeshipsuk/degree-and-professional- apprenticeships)

Vinson, T., Rawsthorne M., Beavis A. and Ericson M., 2015, *Dropping off the edge report, Persistent communal disadvantage in Australia* last accessed July 2017 http://k46cs13u1432b9asz49wnhcx-wpengine.netdna-ssl.com/wpcontent/uploads/0001\_dote\_2015.pdf