



**REDSPACE:**

CENTRE FOR APPLIED RESEARCH AND INNOVATION

# ARIES CASE STUDIES 2016



**APPLIED RESEARCH, INNOVATION  
AND ENTREPRENEURSHIP SERVICES**



**REDSPACE: ARIES**  
CREATING VALUE FOR EMPLOYERS

**MAKE  
GREAT  
HAPPEN**





# IF WE TEACH TODAY'S STUDENT AS WE TAUGHT YESTERDAY'S, WE ROB THEM OF TOMORROW.

– John Dewey, Democracy and Education, New  
York, Macwilliam Company, 1944, p.167

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# Foreword



**Jodi Schmidt**  
Chief Executive Officer  
TAFE Queensland

TAFE Queensland is the largest and most experienced provider of vocational education and training across Queensland. As at 2016 TAFE Queensland has the full time equivalent of more than 1,800 qualified educators with practical 'hands on' industry skills and teaching expertise. We have more than 120,000 learners and a long history of close working relationships with employers to improve the learning experience and contribute to our communities. This is reflected in our graduate outcomes that indicate 87 per cent of graduates were either employed or in further study three months after training completion (NCVER 2015). We're proud of our learner outcomes and our trusted reputation in the community across Queensland.

In 2016 our transitioning economy provides impetus for new services and upskilling. Underpinning all growth industries is a workforce need for digital literacy and enterprise skills – or 'future skills'. Future skills development are a solution to high youth unemployment and at-risk employees in declining industries. Secondly the transitioning economy creates opportunities for TAFE Queensland to reskill the Queensland workforce for fast growth and emerging industries. These factors compel us to purposefully focus on entrepreneurship, innovation and by implication, an applied research agenda.

TAFE Queensland RedSpace: has created the ARIES program – Applied Research, Innovation and Entrepreneurship Services – to foster a greater recognition of the activities that we already undertake and plan to grow.

VET occupations are critical to innovation. Innovation is not just about technology but may involve generating value from new ideas that lead to process changes, new products or services, or business models. It occurs in all workplaces statewide – from factory floors to design studios to remote community health workforces. Innovation is one of TAFE Queensland's four key values and I believe the work shown in these case studies is proof of our commitment to this value.

Thank you to all staff who continually find ways to improve our organisation and educational outcomes for our learners. Thank you to employers in our local communities who open their doors to our educators and learners and who work closely with them to create innovation and make great happen.

# INTRODUCING ARIES

## Applied Research, Innovation and Entrepreneurship Services



**Dr Christina Hong**  
Chief Academic Officer  
TAFE Queensland

Applied research in the TAFE Queensland context involves a three way collaboration between educators, employers and learners. For example, educators mentor learners as they address an employer problem with some form of technical study. Outcomes are actionable, leading to improvements in practice or new products and services which are innovative:



Applied research shares an important feature in common with traditional research – it is systematic and robust, collecting data on solutions for evidence-based decision-making. However, it also has other characteristics that distinguish it from traditional research - it can rapidly deliver tangible and innovative outcomes for employers and industry and is research that is not only seeking solutions, it is looking for ideas “out of the box”. Applied research is distinct from other forms of ‘work integrated learning’ (such as apprenticeships or workplace-based projects) because it focusses more on critical reflection, problem solving, innovation and consequently develops enterprise skills. We see it as an enhancement to work integrated learning approaches.

The TAFE Queensland Learning and Teaching Framework highlights our commitment to applied research and inquiry approaches to develop critical reflection and problem solving skills. These exemplars highlight critical reflection and problem solving by both educators (to improve training delivery) and learners (to address employer

problems) as part of a high-quality learning experience. Supporting the applied research and innovation initiatives of our educators is TAFE Queensland RedSpace: Centre for Applied Research and Innovation, a unit within the TAFE Queensland Office of the Chief Academic Officer. It aims to strengthen our internal capabilities to enhance outcomes with stakeholder communities. A way to do this is by sharing the ‘lessons learned’ and resources created from past projects.

This collection of exemplars marks a starting point in sharing the story of our applied research journey. We learn from our educators that working with employers to resolve problems is ‘just part of the job, always has been’. We learn that applied research is undertaken both by learners within curriculum, and by educators as part of professional practice, however, it has not been our practice to ‘name and claim’ it.

TAFE Queensland is committed to further developing and growing our applied research capabilities and practices in tandem with employers and industry partners. A key aim for the next year is to further improve our timeliness and responsiveness to employer needs, with the challenge of aligning projects with teaching and employer timelines.

We wish to thank our educators and the employers who generously gave us their time to prepare these exemplars. I hope you enjoy reading and reflecting upon this collection and gain a greater appreciation of TAFE Queensland’s developing contribution and role in the innovation ecosystem.

# APPLIED RESEARCH AS AN EDUCATOR CAPABILITY





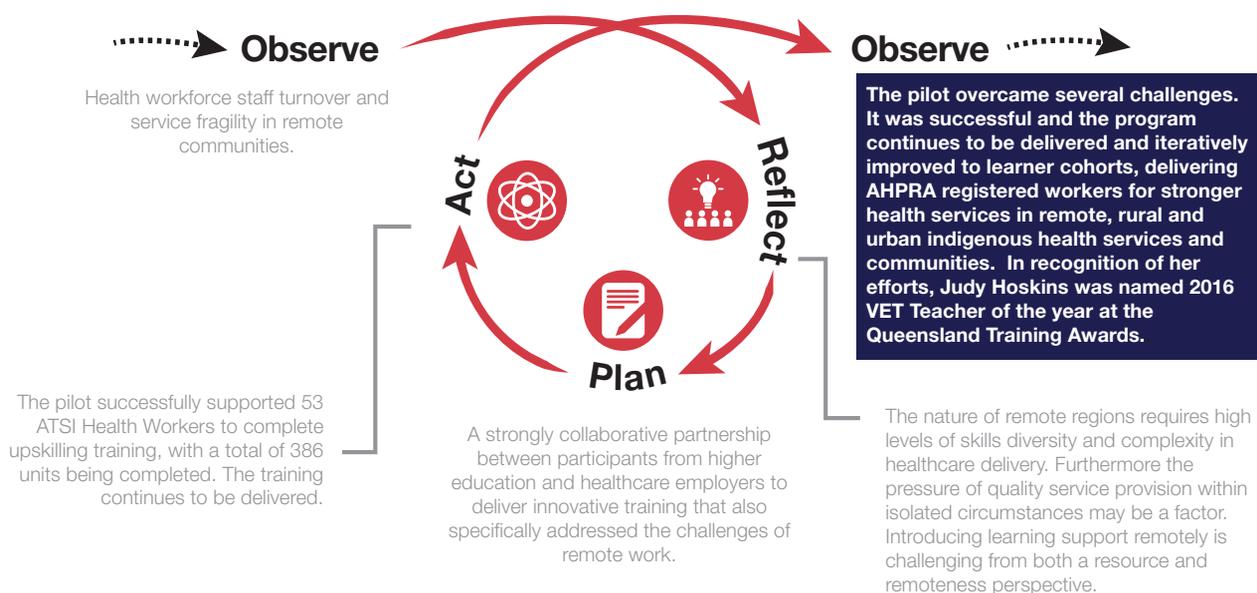
# Strengthening health workforces in remote, rural & regional Queensland

*Collaboration between higher education, the health industry and community partners to overcome major challenges*

## Overview

In 2012 the Aboriginal and Torres Strait Islander Health Practice Board of Australia was established under the auspices of the Australian Health Practitioner Regulation Agency (AHPRA). Following this, a Health Workforce Australia (HWA) national study recommended supporting suitable Aboriginal and Torres Strait Islander (ATSI) Health Workers to register under the National Registration and Accreditation Scheme as ATSI Health Practitioners. To address this gap, a large scale skills recognition and assessment, and training program across Australia and including North Queensland needed to be created.

James Cook University (JCU) was successful in gaining approval to lead this program and its Indigenous Health Unit formed a consortium partnership with TAFE Queensland North, the Queensland Health Hospital Network and ATSI community controlled health sector members. Through this collaborative approach, 200 health workers expressed interest in the training, of which 53 learners completed the pilot program to achieve completion of specified units enabling the learners to apply for registration with the Aboriginal and Torres Strait Islander Health Practice Board of Australia. After the pilot a waiting list of 150 remained for the program, reflecting high unmet training demand. Recommendations were made for future training approaches, such as greater collaboration and fostering reflective and critical thinking to support broader capacity building. Judith Hoskins of TAFE Queensland North led the TAFE Queensland team within this project. She is an educator within the TAFE Queensland Indigenous Health Unit.



## CONTEXT

A Health Workforce Australia (HWA) study investigated solutions to the burden and distribution of disease prevalent within the ATSI population. Across Northern Australia the morbidity and mortality profile is very different to other areas of Australia, with high rates of acute conditions, chronic disease, and trauma. This requires high levels of skills diversity and complexity in healthcare across Northern Australia. At the time of the HWA study there were very few employed ATSI Health Practitioners (ATSIHP) because the role was still being defined. North Queensland remote health clinics were typically staffed with two Health Workers, although some also have a registered nurse on site in clinics that provide 24 hour services. Employers include Queensland Health, private medical centres, and Aboriginal Community Controlled Health Services.



**“The only way to build a sustainable health workforce is to start investing in local people and empowering them to help make health better in their communities.”**

Robin Moore, Chief Executive Officer  
NQPHN  
(NQPHN 2016)

## Problem

The key problem was high staff turnover and service fragility in remote, rural and regional Australia. The pressure of quality service provision within such isolated circumstances may be a strong contributing factor, and the HWA study recommended strengthening and sustaining the ATSI Health Workforce by registration of practitioners under the National Registration and Accreditation Scheme. As a Certificate IV in ATSI Primary Health Care Practice was to be the minimum requirement for registration, this meant Health Workers needed to have their skills recognised and/or training in order to meet the minimum registration requirements.

Managing the size of demand and expectations of the new training was a challenge. The ATSI Health Practitioner role was still being defined as the project began, yet two hundred health workers expressed an interest in the training. This meant a large skills assessment (including recognition of prior learning) and training exercise for the existing workforce who had widely varying backgrounds and capacity. Some also needed a bridging course for language, literacy and numeracy (LLN) skills.

Introducing learning support remotely is challenging from both a resource and remoteness perspective. The training was to be targeted in the form of residential blocks and supported into the workplace, with teachers having in depth understanding and familiarity of the environment in which Health Practitioners would operate, with the approval of local and state employers and regulators. Northern Australia is characterised by dispersed, diverse populations in regional, rural and remote locations, with poor infrastructure, communications and transport challenges. This creates not only challenges for delivering health services, but also for training health practitioners.



## Approach

A new approach to training delivery that emphasised accessibility and flexibility was needed. The James Cook University (JCU) Indigenous Health Unit formed a consortium with the experience, local knowledge, geographical coverage, facilities and expertise to meet project requirements. Partners included:

- TAFE Queensland North;
- Queensland Aboriginal and Islander Health Council (QAIHC);
- Mount Isa Centre for Rural and Remote Health (MICRRH);
- Townsville Aboriginal and Torres Strait Islander Corporation for Health Services;
- Apunipima Cape York Health Council.

Governance was managed by a Health Workforce Agency Project Advisory group that included consortium representatives and:

- HWA Workforce Innovation and Reform Program Manager;
- National ATSI Health Worker Association representative;
- Australian Health Profession Regulation Authority representative;
- ATSI Health Practice Board of Australia representative.



The consortium collaborated by project planning (objectives, scope of locations, timeframe, critical success measures, budget, staff appointments) in regular formal and informal meetings, communication and workshops. TAFE Queensland North in Cairns was tasked to prepare and deliver five key quality units and provide recognition of prior learning (RPL) opportunities for the qualification of Certificate IV in Aboriginal and/or Torres Strait Islander Primary Health Care Practice. But it was created in collaboration with consortium members, for example James Cook University and TAFE Queensland North shared:

- Innovative teaching strategies such as joint delivery of the clinical skills components using both James Cook University and TAFE Queensland North clinical laboratories;
- learner clinical logbooks – where learners reflected on clinical training;
- a commitment to provide quality clinical skills training which was delivered by both the University Medical Clinical Skills team and the TAFE Queensland North Indigenous Primary Health Care team. Learning support staff were available to assist learners through an intensive two weeks residential block program at the University Townsville campus, and later at the TAFE Queensland North Cairns campus and;
- resources (simulation equipment, teaching expertise, lesson plans and more were made available).

The pilot aimed to deliver training to fifty ATSI Health Workers and provide recognition of prior learning assessments to ten ATSI Health Workers.

## Innovation

The project successfully supported 53 ATSI Health Workers to undertake upskilling training, with a total of 386 units being completed in a pilot and the program continues to be delivered to learner cohorts. Excitingly, twenty learners applied for AHPRA registration. Rates of successful completion increase with each cohort, aligned with improving levels of learner satisfaction, possibly because the training program was iteratively improved based upon learner feedback. For example, the task of language, literacy and numeracy (LLN) assessment was moved to occur earlier in the program so it could support the tailoring of training to individual learner needs. Learners indicated that simulated learning environments were a highlight of the clinical skills training, as was peer to peer learning opportunities.

This project identified high unmet demand for training in North Queensland, with 150 health workers – with varying backgrounds and capacity - on a wait list for the training at project completion. North Queensland - via TAFE Queensland North - now has a reliable training program for a Certificate IV in ATSI Primary Health Care Practice and is in the process of gaining AHPRA Accreditation. Iterative improvements were recommended for future training, including:

- investing more time pre-course to identify individual learner needs, including language, literacy and numeracy (LLN) assessment, and develop individualised learning support plans;
- conducting participant interviews prior to the course commencement. This provided learners with insight to the course requirements and the level of commitment including the clinical requirements of the course;
- more time spent between TAFE Queensland North and employers to strengthen relationships;
- blended delivery was used but learners wanted more face-to-face teaching time. Because of some remote locations, financial and logistical barriers prevent more face-to-face learning and so TAFE Queensland North may increase its focus on assisting learners to engage with online learning to mitigate problems of remoteness. This is carefully managed because of the variances of telecommunications access in remote regions;
- flipped delivery is encouraged, where learners learn theory offsite prior to attending in-person training. This allows more time for in-person practical clinical skills development onsite, and practice led peer-to-peer learning and;
- the project funding was challenged by unexpected events. More flexible funding models will enable: greater support for LLN needs; adequate contact hours for learner support; collaboration between TAFE Queensland, James Cook University and employers; and to support broader capacity building such as fostering reflective and critical thinking and promoting comprehensive primary health care.

TAFE Queensland North General Manager Joann Pyne says the “students have been getting vital hands-on training in our state-of-the-art nursing laboratory at the TAFE Queensland North Cairns campus,” and “our teachers are committed to providing these students with the skills they need to improve the health of their communities,” (NQPHN 2016).

Judith Hoskins is very proud that in addition to the learners gaining registration all participants gained new health knowledge, clinical skills and confidence that are vital for the delivery of health care within remote, rural and urban indigenous health services and communities.

The project highlights the major benefits of collaboration between participants from higher education, the health industry and community partners. The collaborative approach to delivery of the clinical component was a highlight for learners, and the University and TAFE Queensland teams embraced the opportunity and performed as if this was the natural approach to clinical education. The James Cook University Indigenous Health Unit suggests this approach ensures more satisfied learners and employers (Hill & Felton-Busch 2015). The learner feedback was positive overall with constructive suggestions for improvement. Furthermore, the Indigenous Health Unit and TAFE Queensland North found that regular meetings were a useful tool for guidance and decision making, information sharing and discussion of relevant industry issues, especially in managing major unexpected events that impacted the program (such as the closure of funding and governance body HWA midway through the program). Judith highly recommends a collaborative approach to clinical education as the partnership with a tertiary education organisation opens the minds of the indigenous health workers to career growth and removes the unseen barrier between Vocational & Tertiary education.

Judith Hoskins was named 2016 VET Teacher of the year at the Queensland Training Awards for her commitment to building the skills of Indigenous health workers to help provide better treatment for people living in remote communities.

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## Acknowledgements

### Judith Hoskins

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This case study was informed by  
a paper about the project from the  
JCU Indigenous Health Unit:

Hill, K & Felton-Busch, 2015  
'Aboriginal and Torres Strait Islander  
Health Worker Skills Recognition  
and Up-skilling Project. James  
Cook University Indigenous Health  
Unit, Rockhampton. September.



# Partnering with electrical contractors to seed and grow skills for innovation

*Growth in apprentices closely aligns with market growth*

## Overview

The electrical contracting industry has adjusted to systemic disruption from new technologies and regulatory changes during the seven years to 2016. It has responded to new technologies (such as residential solar power and renewable energies) and residential battery storage systems and the 'internet of things' loom (for instance garage doors that open via remote mobile devices or sensors in cars). Electrical contractors have adapted, for example James Caldwell, CEO of Hembrow's Electrical Service notes "my clients have gone from having a few customers, to adding 15,000 small customers in seven years." The implementation of innovations on a mass scale often requires new skills and approaches. TAFE Queensland SkillsTech works in partnership with the electrical contracting industry to develop new skills for certified apprentices as the need arises. This case study demonstrates how TAFE Queensland SkillsTech educators work in close and ongoing partnership with employers to rapidly deliver tangible and innovative outcomes for employers and learners.



## CONTEXT

Hembrow's Electrical Service is a family-owned electrical contracting company based in southeast Queensland that services customers locally and with projects across Australia. Since 1978 it has grown to 100 full time employees - making it one of the leading electrical employers in Queensland. Clients include major property developers whose new homes they wire for automation and install energy products. They also provide commercial services for large buildings, including most recently installing solar panels on the Brisbane Powerhouse (a former coal-fired plant now a landmark performance and art space).

Hembrow's CEO, James Caldwell, describes the benefit of TAFE Queensland SkillsTech to his business as 'huge', as they develop apprentices 'interlinked' as a team. As an employer he and his team work closely with TAFE Queensland SkillsTech educators, notably Ray Felschow and Sue Goller, to guide apprentices through the transition from high school to tradespeople. Caldwell considers that TAFE Queensland provides learners with the skillsets and certification required, enabling him to focus on assessing potential apprentices based upon their attitudes and workplace skills. The career pathway begins in high school, with a pre-vocational seven week Certificate II in Electrotechnology (Career Start) course that takes about 24 students every ten weeks, and has a near-hundred per cent completion rate. During the course local employers present to each class about the electrical contracting industry.

## Problem

The challenges for TAFE Queensland SkillsTech are:

- keeping up with innovation in electrical contracting and client needs
- arranging the large, high-capital investments required in new equipment
- the allocation of time for staff to train in the new equipment
- creating and accrediting the curriculum for apprentices to learn how to use new equipment safely.

To a large extent the allocation and timing of investment is driven by local employer needs to keep apace. Hembrow's continues to innovate with new technologies that come onto the market and with new technology comes the need for new skills. Potential clients may ask Hembrow's whether they have tradespeople with accreditation for solar battery installation. Noting the symbiotic relationship between demand for skills and supply, Caldwell observed "it's tricky because initially no one is an expert, then technology evolves and early adopters familiarise with it, the market opens up," and new jobs are created. But at the same time "if you haven't educated your workforce you can't help your customers compete with offshore competitors." To illustrate he notes a recent major solar energy installation, partly funded by the governments clean technology investment program, that Hembrow's completed to reduce energy costs for a quality food manufacturer who is competing with lower cost offshore food producers.



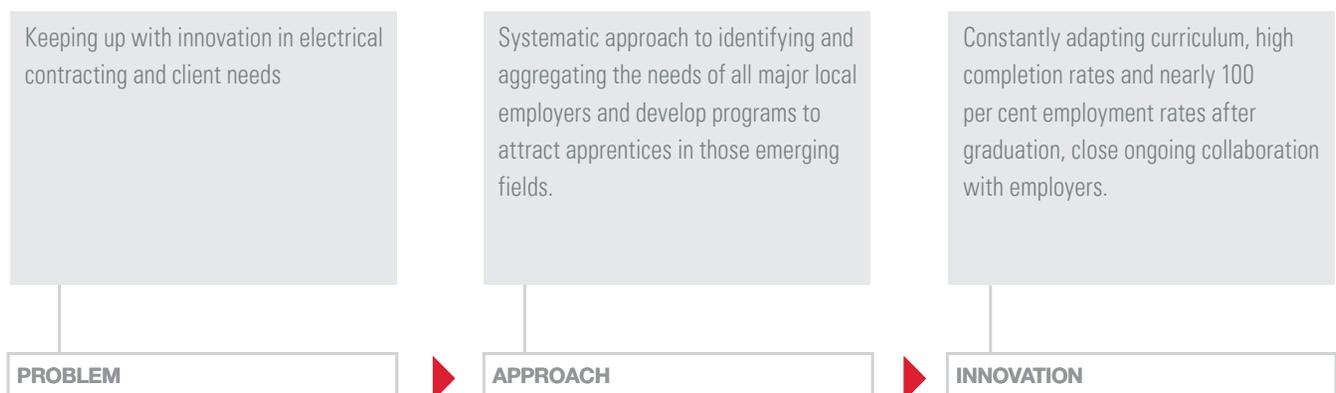
## Approach

As demand grows, Hembrow's staff indicate to TAFE Queensland SkillsTech how many apprentices they plan to hire and the skills they'll require. TAFE Queensland SkillsTech identifies and aggregates the needs of all major local employers and develops programs to attract apprentices in those emerging fields. All new curriculum is driven by an industry advisory group endorsed by the industry regulator (the Electrical Safety Office).

## Innovation

The large-scale facilities, processes and expertise at TAFE Queensland SkillsTech enable the seeding and acceleration of skills for innovation. It's simply something they do, have always done, and want to do more - to familiarise themselves with emerging practices and invest in new equipment for learners. Equipment suppliers sometimes donate new major equipment so that apprentices can become familiar with it while learning.

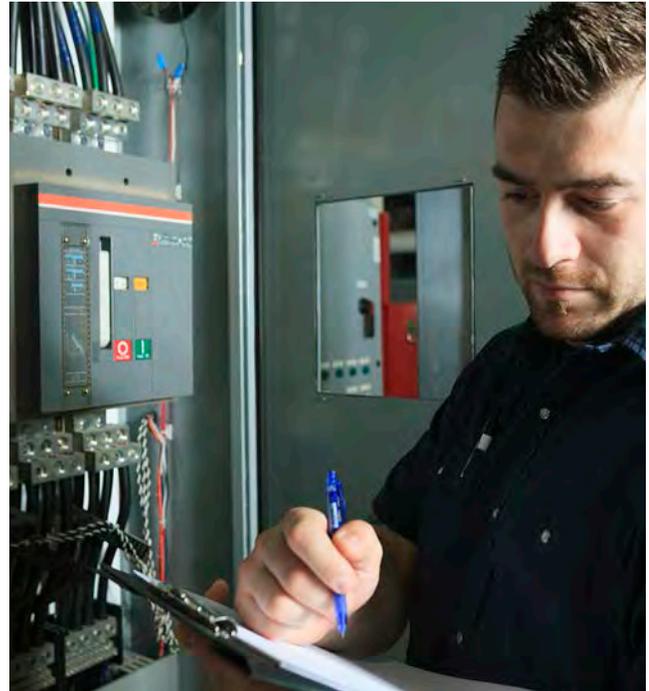
As local employers transition to new tools and approaches so too the TAFE Queensland SkillsTech curriculum has evolved in partnership with them. For example, in the field of telecoms cabling, historically apprentices undertook 'CAT5' network cabling certification. This evolved to CAT5E (enhanced cabling) and was then replaced by CAT6 (ethernet cabling) training. As equipment improves, so too has the role of electrical contractor diversified. The curriculum for accreditation now has more options available to choose from. Seven years ago a typical electrician would have a Certificate Three in electrical wiring, and now a typical electrical contractor may have a Certificate Three in telecommunications and a Certificate Four in engineering (HVAC – air conditioning).





“It’s tricky because initially no one is an expert, then technology evolves and early adopters familiarise with it, the market opens up,” and new jobs are created. But at the same time “if you haven’t educated your workforce you can’t help your customers compete with offshore competitors.”

James Caldwell, CEO Hembrow’s  
Electrical Service



Outcomes include high completion rates and nearly one hundred per cent employment rates after graduation. The TAFE Queensland SkillsTech Electrotechnology Career Start program that attracts high school students has also created a quasi-skills marketplace for potential employers wishing to identify future employees. This carefully occurs within regulatory confines, as employers cannot approach students directly; rather they may speak to the class and the students may reach out to the employer upon completion of the program for an apprenticeship. Reflecting upon Hembrow’s electrical experience with TAFE Queensland SkillsTech, James Caldwell noted that if Australia wants to continue to adopt new technologies and innovation, employers and TAFE need to continue to work together to upskill our workforce and invest in emerging technologies and equipment.

---

## Acknowledgements

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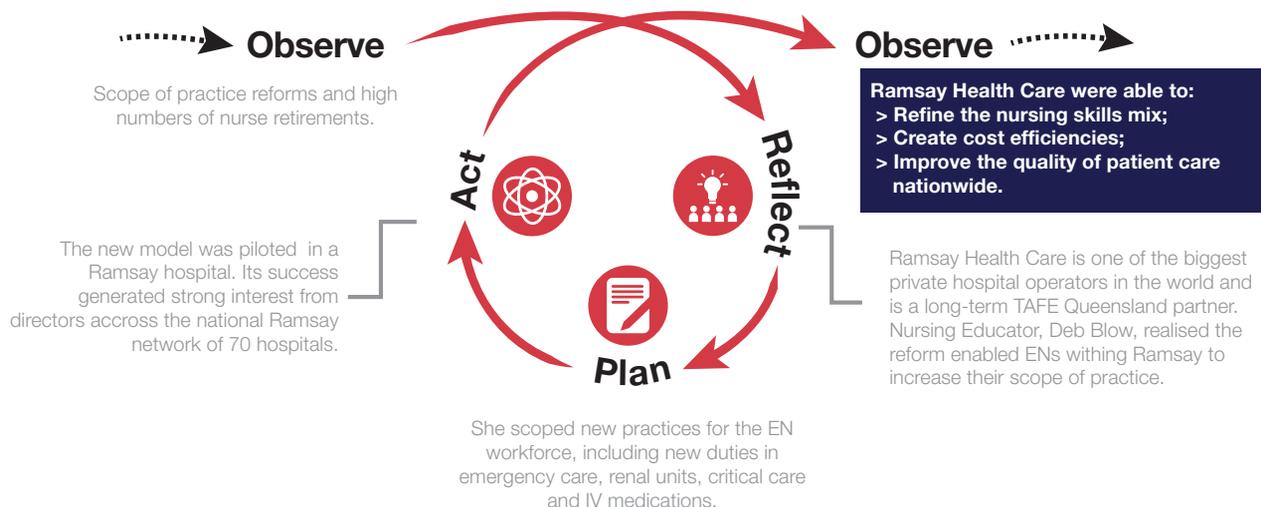


# Industry and VET integration transforms nursing practice

*A new Scope of Practice for nursing at Ramsay Health*

## Overview

In 2010 there were major scope of practice changes for Enrolled Nurses. However there had been a series of regulatory changes and Ramsay Health Care did not have capacity to respond effectively and so maintained a 'status quo' of no change. Debbie (Deb) Blow, Executive Leader and Director of the Health and Nursing faculty at TAFE Queensland Gold Coast saw an opportunity to redefine and expand the activities of Enrolled Nurses and supported Ramsay in creating and advising on a new role profile for Enrolled Nurses that aligned with new national Scope of Practice standards. Doing so enabled efficient workforce planning strategies to be implemented.



## CONTEXT

Ramsay Health Care is a global hospital group operating over 220 hospitals and day surgery facilities across Australia, France, the United Kingdom, Indonesia and Malaysia, and it is one of the top five private hospital operators in the world. Ramsay Health Care facilities cater for a broad range of health care needs from day surgery procedures to highly complex surgery, as well as psychiatric care and rehabilitation. With more than 25,000 beds, the Company employs over 60,000 staff across five countries and treats almost three million patients each year.

In 2010 the regulation of nursing practices moved from state to federal government with the formation of ARPRA (Australian Health Practitioner Regulation Agency) which introduced a newly developed national 'Scope of Practice' for health practitioners, including nurses. Scope of Practice standards provide the framework for assessing nursing practice. They are minimum standards that are applicable across diverse practice settings and health care populations for both beginning and experienced nurses, and communicate to the public the standards that can be expected from nurses. However the new Scope of Practice only provided examples of activities that could be undertaken by Registered, Licensed Practising and Enrolled Nurses (ENs).



“Deb is leading the way – she’s intuitive with our needs and she’ll always deliver. Every time we come back with changes to align our workforce training needs they’ve been so responsive. TAFE are our preferred provider for clinical training in Queensland.”

Liz Ohl, Workforce Learning  
and Development Coordinator  
Ramsay Health Care Queensland

## Problem

The healthcare sector in Australia is highly regulated, and policy intervention in health is notoriously difficult according to Healthscope CEO Robert Cooke (in Gardner 2016). When the national framework was introduced healthcare providers struggled with the change. Scope of Practice was no longer prescribed by a peak state body but was determined and driven by hospital policy. It gave hospitals more autonomy regarding development of the Scope of Practice for enrolled nurses. However, through lack of understanding most providers made no changes.

Additionally, there was an ongoing challenge related to skills-mix. The healthcare workforce is ageing, with the national average age of enrolled nurses being 46 years, of which 48 per cent are aged over fifty years old (AIHW 2015). Experienced staff are leaving the sector (retiring), and the mix of skills is transitioning from experienced to novice.



## Approach

Deb Blow saw an opportunity to improve understanding of the Scope of Practice and consequent upskilling of the existing workforce. Specifically she:

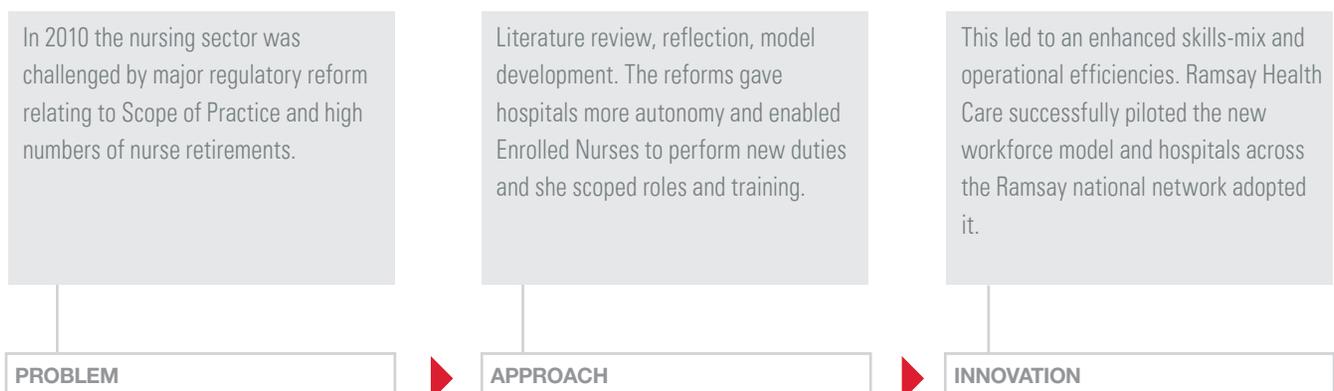
- analysed the framework and saw how it could facilitate workforce strategies
- saw that the Scope of Practice enabled greater role flexibility in the industry
- identified the potential to vastly expand the scope of activities performed by ENs
- realised that industry - including Ramsay Health Care - needed direct advice.

She envisioned “what we could do with them, if they understood what they can do.” Initially Deb Blow presented to one healthcare provider in the Ramsay Health Care network – Greenslopes Hospital, a site with a long established, deep partnership with TAFE Queensland – and proposed a pilot.

## Innovation

Deb Blow’s recommendations were implemented and as a result:

- The expansion of services performed by Enrolled Nurses has optimised their utilisation and service provision. They enjoy more opportunity and diversity, including work in critical care, renal units and they now routinely give IV medications up to and including Schedule 8.
- The new skills-mix led to a redefinition of all nursing roles, freeing up the time of Registered Nurses who previously delivered services that Enrolled Nurses can now do. This has - to some degree - addressed the sectoral skills-mix challenge within Ramsay Health Care.



- As at 2016, TAFE Queensland is now the sole provider of training services to Ramsay Healthcare in Queensland, using its state-wide locations to deliver consistent training packages.
- News of the successful pilot spread across Ramsay Health Care and to respond to demand, Deb Blow presented to staff across Australia so that their nursing leaders could share a common understanding of the practical opportunities to reshape the roles and service delivery to patients. Ramsay Health Care nursing leaders are now informed and confident of requirements and opportunities within the Scope of Practice regulations.
- National regulation meant national provider Ramsay Health Care could implement the Scope of Practice changes across states, and so Deb Blow's recommendations were implemented across Ramsay Health Care sites nationally. The expanded Enrolled Nurse training was delivered to other states where TAFE Queensland does not have a physical presence, and so required new pedagogical approaches to training delivery. In those instances students learn in online learning environments and are embedded within local Ramsay Health Care hospitals.
- TAFE Queensland is now perceived as a national leader in nursing training.

Deb Blow created a pathway through the regulatory confusion, her recommendations improved how nursing staff organise and provide care to patients.

---

## Acknowledgement

### **Deb Blow**

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# Driving to deliver automotive training

*Work-based training outside, onsite*

## Overview

TAFE Queensland SkillsTech offers the broadest range of automotive training in the state for apprentices, licensing and advanced automotive skills. It has over \$60 million invested in large scale automotive training facilities. There is a strong working relationship with employers, for example mutually developing the skills of apprentices within the workplace. Wil Brakels at TAFE Queensland SkillsTech identified that employers suffer when learners (including apprentices) undertake 'block' training on campus – when they are absent for weeks at a time. Their absence from the workplace creates staff shortfalls, stretches capacity and leads to a loss of productivity. Given the problem concerned automotive training, the solution was transport-related. Wil Brakels recommended increasing the flexibility of training delivery, essentially educators and their facilities would go to the workplace. Three mobile automotive training vans, set up like mini-classrooms, were made available to deliver training in workplace. This was an innovative solution not seen before in Queensland, and feedback from both employers and students indicates satisfaction with the new arrangements.





## CONTEXT

The large scale automotive training facilities at TAFE Queensland SkillsTech include twenty workshops with the latest technology and equipment including new truck and car donations from Iveco, Mack, Kenworth, Volvo, Komatsu, Toyota, Nissan, Chrysler and Holden, along with three engine and two chassis dyno's, state-of-the-art wheel alignment and brake testing stations, specialised training rooms for diesel fuel, auto electrical and air-conditioning. The automotive industry is rapidly evolving with technological innovations and the four TAFE Queensland SkillsTech campuses are a destination for hands-on learning and experimentation with new equipment. When learners return to their workplace they tend to disseminate their 'lessons learned' to colleagues.

## Problem

TAFE Queensland SkillsTech training programs may include six-week training blocks where learners are based full-time on campus to use the mass scale training facilities. Wil Brakels - SkillsTech Business Development Manager of Automotive - identified that the six-week training blocks were inconvenient for employers – especially small to medium sized businesses - because they took learners away from their business and created staffing shortfalls, stretched capacity and led to a loss of productivity in their businesses during the six weeks.



“Securing ‘buy-in’ from management at an early stage helps projects succeed, and the best way to achieve this is to provide sound evidence from employers,”

Wil Brakels,  
Business Development Manager, Automotive  
TAFE Queensland SkillsTech

## Approach

TAFE Queensland SkillsTech educators frequently negotiate informally with employers whose staff they are training. Separate to this, both TAFE Queensland and SkillsTech undertake formal ongoing assessments of market needs. In 2014 Wil Brakels undertook a formal survey to gather industry feedback on current training programs. He targeted a representative sample of large and small, and heavy and light vehicle companies. A total of 38 in-depth surveys were completed and supplemented with interviews. Findings were discussed with an automotive industry training reference group, the National Training Advisory Committee of Auto Skills Australia, which confirmed that training within the workplace is easier to manage for businesses than block training at a training centre.

## Innovation

While this was generally known, there were perceived barriers to implementation. Wil Brakels had no doubt that SkillsTech logistics experts would relish the challenge of finding a way to transport the massive scale of training equipment and resources at SkillsTech to other sites, but it would be cost prohibitive and would disrupt operations. Furthermore, delivering training onsite in workplaces may interrupt and distract workers, and add an administrative burden of verifying the occupational health and safety of every site when training is held. Wil Brakels reflected on this and proposed a solution of mobile training vans delivering daily training. This approach keeps training activities outside rather than offsite to the workplace, and doesn't remove learners from their workplace in blocks of weeks.

The vans are big enough to hold sizeable automotive equipment (particularly for heavy vehicle training which survey results indicated was the area of greatest need), and teaching resources. Ordinarily the costs involved in such a project would be a barrier to implementation. However the proposal - supported



by evidence from the employer survey results - achieved support from three TAFE Queensland SkillsTech training centres. Within six months, three vans had been fitted out (two for heavy vehicle training), with flexible delivery of training beginning in July 2015. For each day of training delivery, vans are stocked with relevant tools and equipment and driven to the workplace location for the training session. Practical sessions are accompanied by interactive simulations on a computer in the van.

Learners are no longer away from their jobs for six weeks at a time, instead training is more closely aligned with their workplace routine. News about how this approach makes learning easier spread in the local automotive industry, and interest grew from learners and employers (including major businesses). Enrolments have increased. The concept has attracted interest across TAFE Queensland for automotive training in other regions and in other industries (carpentry and construction). However, this approach has ongoing costs that TAFE Queensland SkillsTech absorb because they specialise in automotive maintenance, and it is not suitable for all training –some equipment is too costly or fragile to move or too large scale to move frequently. Notably this approach reduces but does not remove opportunities that TAFE Queensland SkillsTech facilitates for learners to network with peers beyond their workplace - there are still opportunities to meet on campus at events and for use of major scale equipment.

A positive but unexpected outcome of the mobile training centres has been the strengthening of relationships between TAFE Queensland SkillsTech educators and automotive workplace supervisors. Typically they are in constant communication, but it is by email or phone more often than face-to-face. Workplace based training means that the supervisor and educator have more opportunity to get to know each other in-person and understand their mutual expertise and the quality of training. Workplace supervisors are able to give and receive instant and informal feedback on learning progress. Furthermore the educator has the opportunity to see and better understand the workplace, how it is changing as the automotive industry innovates and its skills needs. This increased level of interaction has led to further projects for TAFE Queensland SkillsTech.

Reflecting upon his achievement Wil Brakels noted that securing 'buy-in' from TAFE Queensland SkillsTech management at an early stage helped the project succeed, and the best way to achieve this is to provide sound evidence of the project need from employers.

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## Acknowledgement

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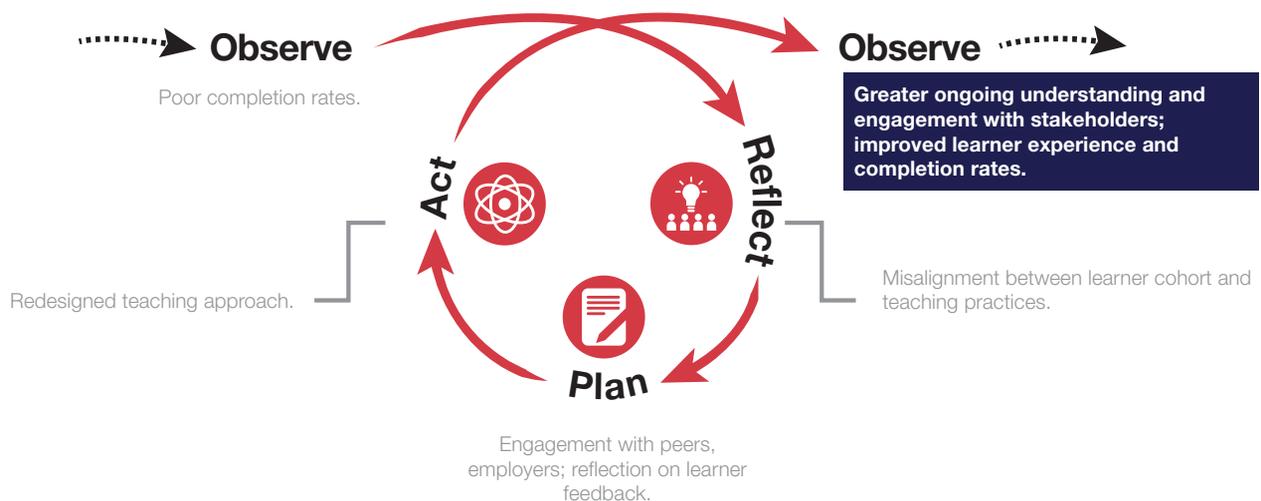


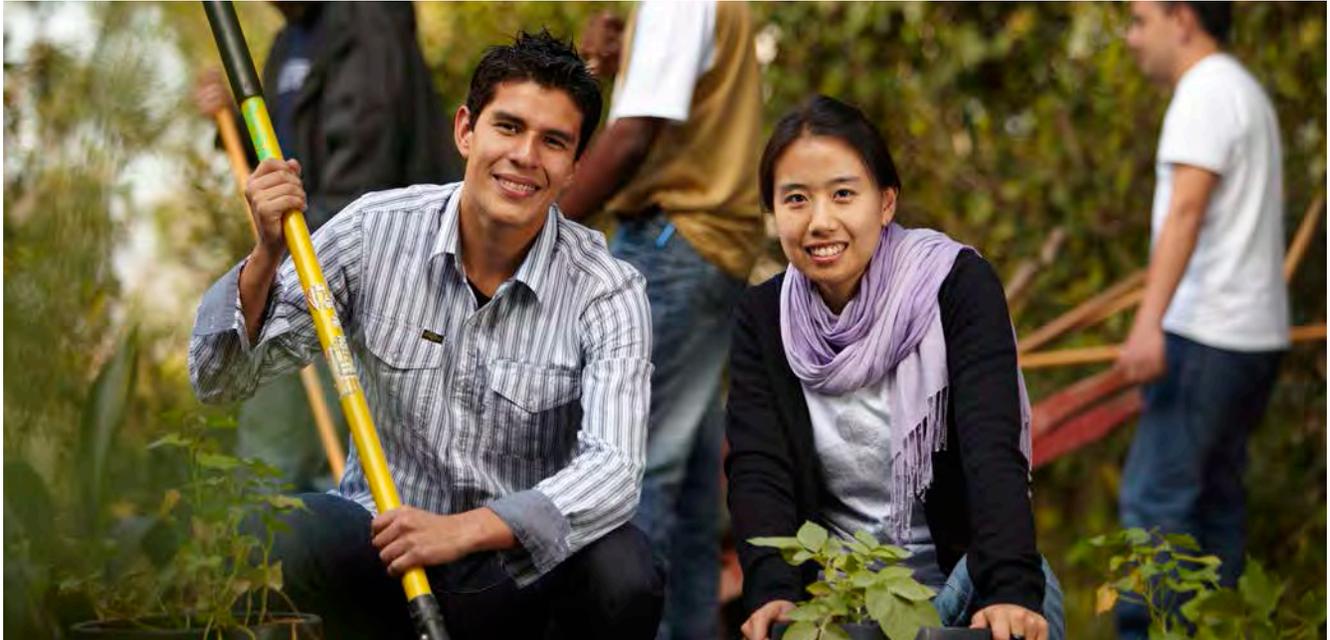
# Aligning pedagogical approach to the learner cohort

*Learning horticulture outdoors*

## Overview

TAFE Queensland South West Horticulture. Educator Nick Westwood observed that learners in his Certificate III and Diploma of Horticulture were apprehensive of institutional education and lacked confidence in their abilities to learn traditionally. He reflected upon this, discussed it with peers and approached it by restructuring the curriculum to replace traditional classroom-style teaching with practical action learning in the workplace. This approach was possible because he could leverage off his strong relationships with local horticultural employers. The change led to increased learner completion rates, increased learner and employer satisfaction levels – which also potentially improved employment outcomes for learners - and improved learner confidence. Some graduates have continued their learning journey into higher qualifications.





## CONTEXT

Employees in this sector enjoy 'hands-on' physical work outdoors tending to gardens and landscaping. The horticulture industry is considered to be one of Queensland's fastest growing industries, contributing an increasing share of the gross value of Queensland's primary product (*Queensland Department of Employment, Economic Development and Innovation 2011*).

## Problem

In 2008 when TAFE Queensland South West began offering horticultural and landscaping apprenticeship training, the industry was unregulated, no qualifications were required and the work was low paid. Less than half of existing employers were providing formal or on-the-job training. The TAFE Queensland Horticulture program was experiencing low completion rates (up to fifty per cent).

Horticultural educator Nick Westwood knew from his own learning experience the challenges the learners in the industry faced. He identified that the institutional education environment (learning via reading and writing in classrooms) was not aligned with his learner cohort or program for example several learners had negative prior educational experiences and so lacked confidence and were uncomfortable in classrooms. Furthermore, many learners came from backgrounds of socioeconomic disadvantage and faced affordability challenges which made them question the value of education.



"We would like to thank you for the wonderful support and encouragement you gave Reuben while he was attending TAFE."

Parent comment



## Approach

Firstly, Nick Westwood discussed this challenge with his peers. His challenge was to enhance learner engagement to build confidence and to improve completion rates. He redefined the learning environment to be more appropriate for horticulture learners - basically he took the teaching outdoors into gardens and landscaping workplaces. He focussed on providing real work experience and meeting employer needs.

Secondly, Nick Westwood actively engaged with industry associations and employers, listening to their issues such as staff turnover, and building a shared understanding of solutions. He then discussed the training subjects and the potential match with employer projects to build a training product that met industry needs, the learning and assessment outcomes for learners, and TAFE Queensland quality standards. Training was scheduled according to employer projects, and projects were translated into key learning messages for 'learning by doing'.

Thirdly, within classes he initially focused on engaging learners by establishing his credentials to gain their respect. He did this by storytelling, sharing his own learning stories of how he overcame similar challenges and apprehension with institutional education, but also by communicating pride in his profession.

Fourthly, the feedback loop on the program was strengthened to iteratively improve it based upon student satisfaction surveys, and employer feedback being regularly monitored by both Nick Westwood and his peers for discussion and improvements. The feedback is incorporated into to the teaching team's Training and Assessment Strategy.



## Innovation

Members of the team believe that understanding stakeholder needs has been a key to their success. While the development of the horticulture training approach was strongly influenced by Nick Westwood's own experiences as a learner, and understanding learners' previous educational experiences, the approach also benefited from discussion, actively listening and building shared solutions.

The team has increased its peer discussion and actively listens to employers about their needs. This approach has contributed toward the professional development of the team. Over time, the team of Horticultural educators has deepened their relationship within the industry, becoming conference keynote speakers, industry writers and judges.

The key outcome of this approach has been the benefit to learners. Understanding learner needs and taking learning out of classroom and into the outdoor workplace created training that was more appropriate to the learner cohort. It improved the learner experience (high to very high satisfaction results from surveys) and completion rates. The initial apprehension of many learners with the education institution has been reduced, as has their fear of career failure. Graduates have more confidence and some have gone on to study higher qualifications.

---

## Acknowledgements

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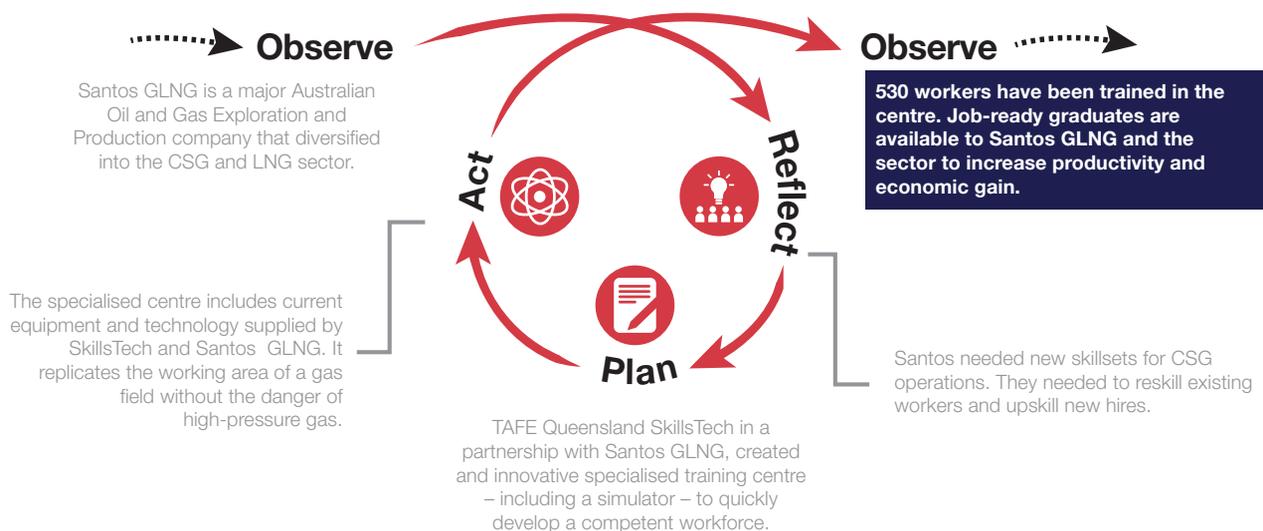


# Partnering with Santos to create Australia's first CSG and Pipeline Training Centre

*Innovative training approach creates careers of the future*

## Overview

A ground-breaking training collaboration in 2011 between the Santos Gladstone Liquefied Natural Gas (GLNG) project and TAFE Queensland SkillsTech introduced Australia's first specialised Coal Seam Gas (CSG) and Gas Transmissions Pipeline Operations Training Centre and provided a much-needed solution for the widespread skills shortage in the CSG sector.



## CONTEXT

Santos GLNG is a major Australian oil and gas exploration and production company. It is one of four major gas companies operating in the Surat Basin in South-West Queensland. Cumulatively CSG development activities led to a boom which created many new jobs and resulted in a skills shortage.

## Problem

In 2010, Santos GLNG needed to rapidly expand its workforce as it diversified from conventional oil and gas into the emerging coal seam gas and liquefied natural gas sector, but it faced a skills shortage. This presented a significant number of workforce training challenges, including the feasibility of training a large number of workers from very diverse backgrounds, the limitations posed by site-based training equipment and the lack of qualified trainers, as well as the absence of a structured classroom based training framework.



“...we hope to leave an important legacy by increasing the capabilities... to deliver Australia’s first training course for large-diameter pipelines.”

Rod Duke, Vice President  
Downstream Santos GLNG



## Approach

A ground-breaking collaboration was formed between Santos GLNG and TAFE Queensland SkillsTech to address these challenges, with a vision to provide industry standard training for the new CSG sector and for the jobs of tomorrow. Its objectives were multiple and included providing accredited training with practical experience in a wide range of operations for young career starters, school-leavers, Indigenous Australians, and career change opportunities for existing tradespeople, as well as upskilling for TAFE Queensland SkillsTech educators.

Research identified two existing training centres of excellence – Manufacturing Skills Queensland and Energy Skills Queensland – as key stakeholders with central project roles and the Queensland Department of Education and Training Strategic Innovation Fund as a funding source.

Australia's first specialised Coal Seam Gas and Gas Transmissions Pipeline Operations Training Centre Training was opened in 2011 at the TAFE Queensland SkillsTech Acacia Ridge campus. The centre includes current equipment and technology supplied by both partners and replicates the working area of a gas field, but without the danger of high-pressure gas. Over eighteen months, the four-phase training provides learning opportunities for students in both face-to-face training at the centre and in self-paced eLearning in the gas field.

The ADDIE model of instructional design (Analysis, Design, Development, Implementation & Evaluation) was applied through individual learning plans, regular meetings of the Learning and Assessment Strategy Committee, and via partners' educators working side-by-side on the same work rosters as learners. Evaluation is undertaken for continuous improvement and is based on participant feedback and monitoring the currency of both national training packages and educators. Regular audits have been carried out during all phases.



## Innovation

As at 2016, eight TAFE Queensland SkillsTech educators have successfully delivered training in a range of qualifications – from foundational courses and skillsets up to graduate programs – for 518 graduates.

There have been positive outcomes for many stakeholders from this collaborative training program. It has greatly improved the previous ad-hoc on-the-job coal seam gas training by developing training to AQTF (Australian Quality Training Framework) standards as well as industry best practice, and in doing so, has set the bar for new standards in coal seam gas training. It has resulted in job-ready graduates with transferrable qualifications and new career paths, with improved access to jobs and training for targeted groups. The original project has already been expanded to include other training required by Santos GLNG, and the training centre is also being used by businesses in the Santos GLNG supply chain. Other VET providers are already modelling aspects of the collaboration.

For the partners, the training has been cost-effective, providing maximum return on training investment through job-ready graduates. The internal systems of both partners have also been improved, along with significant upskilling for the partners' educators through learning about best practice from one another. Mutual trust and respect are important ingredients of a collaborative venture and an effective ongoing working relationship. The structure, models, co-provider agreements, professional development, delivery approach and equipment set-up of this collaboration are all innovative and can be replicated in other sectors to deliver similar outcomes. It is particularly suited to greenfield sites, where a large number of new employees with new skillsets are required within a specified geographic area.

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## Acknowledgements

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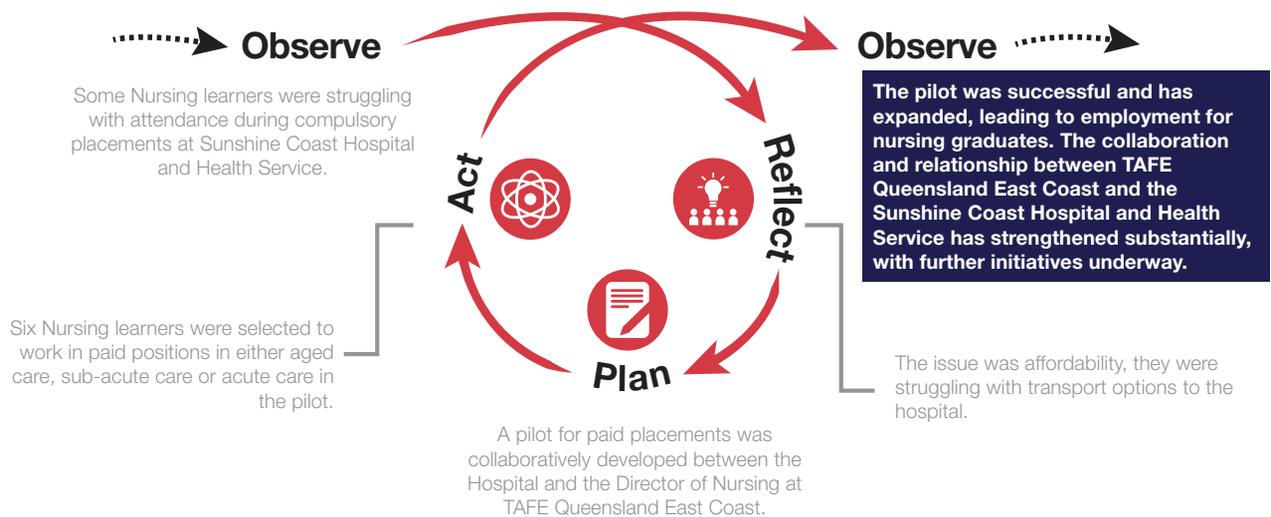


# Paid hospital placements

*Collaborative problem solving with the Sunshine Coast Hospital and Health Service*

## Overview

TAFE Queensland East Coast learners undertake unpaid placements at the Sunshine Coast Hospital and Health Service as part of a long-term partnership. The hospital's Executive Director of Nursing and Midwifery, Graham Wilkinson, identified problems affecting learner attendance on hospital placements. He raised this with Jo Liz Prosser, Head of Nursing at TAFE Queensland East Coast and they took action. They collaboratively devised a solution involving paid placements – where learners could apply for paid roles in the hospital that would meet the placement requirements for Nursing Diplomas.



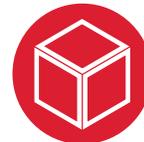


## CONTEXT

TAFE Queensland East Coast has a long-term 'hands-on' highly collaborative partnership with the Sunshine Coast Hospital and Health Service. Not only do nursing learners undertake placements there, but TAFE Queensland aims to train learners on the same equipment and processes used in the hospital; and hospital Nursing Officers visit the TAFE Queensland East Coast Nursing lab to participate in clinical laboratory operation sessions with learners. The simulations and scenarios that learners experience in campus nursing laboratories are as real life as possible (with the exception of administering medication). Hospital staff have also presented to learners on the program and hospital expectations, to help learners move easily from laboratory simulations to real life hospital situations.

## Problem

The hospital's Executive Director of Nursing and Midwifery, Graham Wilkinson observed that some learners were struggling with attendance during hospital placements. Speaking with them revealed that they literally could not afford to get to the hospital to undertake the placements.



**"We don't say no very often, we can make it work."**

Jo Liz Prosser, Head of Nursing  
TAFE Queensland East Coast

## Approach

Initially Graham Wilkinson approached a University about the problem and suggested that he wanted a way to pay learners during their placement. This met with resistance. He then reached out to Jo Liz Prosser, Head of Nursing at TAFE Queensland East Coast who acknowledged the benefits of his proposed solution and so they collaborated to quickly create paying roles that meet the requirements for TAFE Queensland East Coast placements. Together they scoped the hospital requirements for a pilot. They sized the cohort required and created a job description for roles with the paid placement being interwoven with studies. While at the hospital learners would be employees of Sunshine Coast Hospital and Health Service and wear co-branded shirts that visually reflect the partnership with TAFE Queensland East Coast. Generally they would work two days at the hospital and three days on campus for the duration of the placement.

Upon agreement and approval of the roles, Jo Liz Prosser then briefed her learner cohort on the opportunity, encouraged them to apply (it was voluntary) and advised on the process. Some learners had never applied for jobs, so they were asked to submit a cover letter and resume to Jo Liz Prosser and she provided feedback before submitting a screened pool of applicants to Sunshine Coast Hospital. The learners were interviewed by a panel and out of a pool of thirteen applicants, six were selected to work in paid positions in either aged care, sub-acute care or acute care. There were not enough positions to place all interviewees into an award position, so those who were not offered positions were placed in a casual pool (that was outside of the curriculum for placements).

The first cohort of paid placement graduates provided feedback from which iterative improvements were made and the agreement between TAFE and Sunshine Coast Hospital and Health Service was modified. For example, graduates identified that more flexibility in timetables at both TAFE Queensland East Coast and the Hospital would help. Jo Liz Prosser modified the program from being a standalone cohort (the same learners attend the same classes at the same time each week) to enable learners to attend classes of the same unit delivered to other learner cohorts. This enabled them to attend other classes when they'd been rostered on to hospital work during their timetabled class.



## Innovation

The paid placement intake is ongoing and varies according to hospital needs. The second intake was increased by 48 to 75 learners, all of whom could apply. This created potential jobs and a pathway into the workforce for 75 learners. Three graduates from the initial intake have been offered Enrolled Nurse positions, and from the second larger intake eight graduates were offered positions which was low because the hospital was transitioning roles to the tertiary hospital at Birtinya at the time. However some positions were held for learners until they graduate (an indication of their value to the hospital) and more paid placements will be offered. There are additional benefits of this initiative for both learners and the Hospital. Learners are able to familiarise themselves with hospital policies and processes during placements which reduces induction requirements when they commence positions as graduates. Based upon the success of the program, Graham Wilkinson appointed a Nursing Officer whose role is to liaise regularly with TAFE Queensland East Coast to develop and supply skilled nurses.

Upon reflection on the collaboration with the Sunshine Coast Hospital and Health Service, Jo Liz Prosser noted "we don't say no very often, we can make it work." She highlights that TAFE Queensland East Coast Nursing educators also work in the industry. The co-located, deep, active integration between learners, hospital employees and industry-practising educators enhances the opportunity for learners to effectively link nursing theory to practice. The collaboration and relationship between TAFE Queensland East Coast and the Sunshine Coast Hospital and Health Service has strengthened substantially, with further initiatives underway.

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## Acknowledgement

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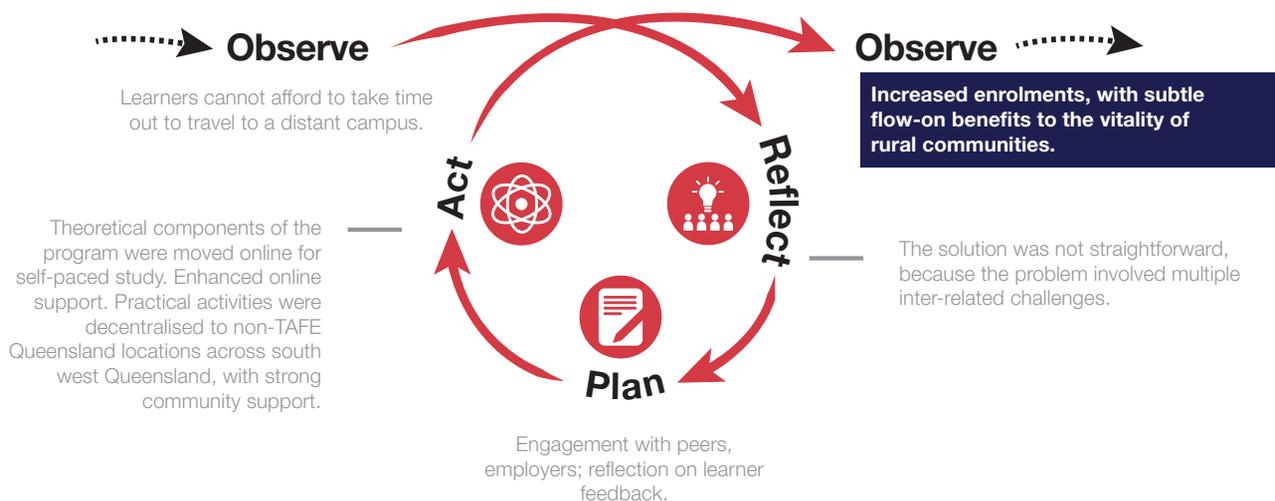


# Community support for regional agriculture training

*Networked delivery model with schools and showgrounds*

## Overview

TAFE Queensland South West has a vast catchment area which is approximately the size of France and it delivers agriculture training to learners across South West Queensland and via videoconference further afield. Of TAFE Queensland South West's ten campuses, the campus at Warwick (a large rural town near the Queensland - New South Wales border) had historically delivered the majority of face-to-face classes in rural qualifications. Travelling times to the Warwick campus are significant for some rural and remote learners which added to the cost of study for learners and their families at a time when rural communities were financially struggling. The Rural Studies team of TAFE Queensland South West reflected upon this and consequently restructured training delivery so that learners could spend more time close to home. The new approach relied heavily upon community support by approving local spaces notably schools, showgrounds or private properties for use in practical training activities. It reduced travel costs and improved accessibility which supported retention. Changes in delivery were also designed to improve learner engagement, motivation and support. Reducing the problems of distance cleared the pathway for learners into further higher-level Agribusiness studies.



## CONTEXT

TAFE Queensland South West delivers programs from Inala to Warwick, Roma and Cherbourg and several locations in between. With respect to agricultural studies, educators teach a range of programs including Vocational Education in Schools (VETiS) Certificate II level Agriculture or Rural Operations for high school learners, Certificate III level Agriculture or Rural Operations and new Diplomas in Agriculture and Agribusiness Management.

Some rural agricultural communities in South West Queensland have struggled economically for the past few years facing drought, flood and a transitioning economy with many large-scale farms being subdivided into residential lifestyle blocks.



"We have had professional dealings with the Rural Training Team for the around the last 15 years. We operate a mixed farm with a mixture of dry land and irrigated cropping, harvesting and baling activities, as well as cattle and piggery operations. During this time we have found the teachers to be very supportive of learning needs of our trainees."

Sharon Young, Director of Youngs Farm Pty Ltd

## Problem

Whilst employment in agriculture is appealing to many people, there is little incentive for formal training perhaps because there is no legislative requirement to hold any qualification to work in farming.

TAFE Queensland South West introduced Diplomas in Agriculture and Agribusiness Management to enable farm workers to upskill and introduce enterprise skills into the Agriculture programs. The Diplomas are offered to learners across Queensland via videoconferencing workshops. Certificate programs, other than traineeships which are workplace based and the team supports learners from Central Queensland to the NSW border, are delivered by TAFE Queensland South West within south west Queensland region only due to the practical components of Certificate II and III courses. They aimed to structure a pathway into the Diploma from the Certificate courses, but faced two major problems:

Firstly affordability posed a major barrier especially in rural communities with increased living expenses, transport issues and issues of distance and accessibility.

Secondly, TAFE Queensland South West runs campus-based and school-based (VETiS) agricultural training programs in Warwick for learners based across the South West Queensland region, however Warwick is located at the far Southern end of the region's student catchment making the distances for students across the catchment to attend regular campus based classes challenging.



## Approach

The Rural Studies team of TAFE Queensland South West reflected upon this, considered a variety of options and proposed to restructure delivery approaches. The solution was not straightforward - they could not simply move to another main campus nor move delivery online for two reasons: firstly, there is wide variability in network connectivity in South West Queensland and secondly, key elements of agricultural practice do not lend themselves to simulations and training required face-to-face participation in real farming activities. Thus a highly nuanced approach was carefully planned and continuously improved with learner feedback throughout all programs.

## Innovation

The team decided to increase the mobility of their delivery to reduce learner travel times and support rural communities. To do this they needed more localities in which to deliver face-to-face training. They moved the theoretical components of the program online to be completed through self-paced study - learners can join the program at any time provided they complete the self-paced study in preparation for practical class activities. Learner support was increased, for example educator's increased regular contact (emails etc.) with learners to ensure self-paced study was on track and any challenges were addressed quickly.

The Diploma programs are different because they focus on farm management and business skills and so face-to-face contact is less important. They also require a minimum level of network capacity as a pre-requisite and each unit involves two separate full-day workshops which are video conferenced to learners across Queensland who cannot attend in person. Weekly one-hour support sessions are offered via 'Connect' – TAFE Queensland's online Learning Management System. Notably, the assignments are based on live projects relating to local farms (keeping learners close to home), such as developing strategies for breeding or climate risk management and planning budgets and whole of farm plans.

TAFE Queensland South West educators live and work within these communities and their strong relationships, goodwill and credibility in rural communities supported their proposal. For example Sharon Young, Director of Youngs Farm Pty Ltd reflected on their long term collaboration to develop future farmers:



“We have had professional dealings with the Rural Training Team for the around the last 15 years. We operate a mixed farm with a mixture of dry land and irrigated cropping, harvesting and baling activities, as well as cattle and piggery operations. During this time we have found the teachers to be very supportive of learning needs of our trainees. [The Rural Training Team are] very focused on ensuring that each and every trainee considers their own appearance and attitude to working in the rural industry not only just for their current employment but for future employment opportunities that may present themselves.”

In some places the Rural Training team approached local Show Societies to use Showgrounds or property owners in their region who could provide the range of practical activities required. At the end of their week of practical work offsite, learners are set up with the online theoretical program and will work through these materials in the next three months prior to the next practical block for those units. Each practical block offers the opportunity to complete activities that reinforce the practical skills learnt in the last block, as well as, learning the new skills related to the current cluster of units.

TAFE Queensland South West was already delivering VETiS training in local schools across South West Queensland using school agricultural facilities. As more schools have wanted to take up the Certificate II in Rural Operations under VETiS, schools have often worked together so that learners from schools without agriculture facilities attend another school nearby that has facilities. This way their students can participate in the program.

Because TAFE Queensland South West is relying on a network of locations and schools balanced against teacher availability, this approach is nuanced. Some schools prefer one day per fortnight or a half day per week schedules. There are also a couple of schools in locations close to their trainer who maintain their standard timetabled class times consistent with the VETiS program. Some school VETiS programs have adopted the one-week block of practical activities approach. Local conditions and industries are also taken into consideration in the specialisation of some elective units for example in Roma students may undertake a couple of sheep electives, whereas in the South Burnett they will undertake beef cattle electives.

Whilst the block model mobile delivery programs are still in their infancy, enrolments are steadily increasing across VETiS and Certificate III programs. The dual Diploma enrolments are also increasing from eight students in their first workshop (April 2016) to between twenty and 25 learners across Queensland and the Northern Territory (September 2016). Most importantly, the Diploma programs may support succession planning for farming families by developing agribusiness skills in the next generation of farmers, with flow on improvements in the vitality of rural communities.

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## Acknowledgements

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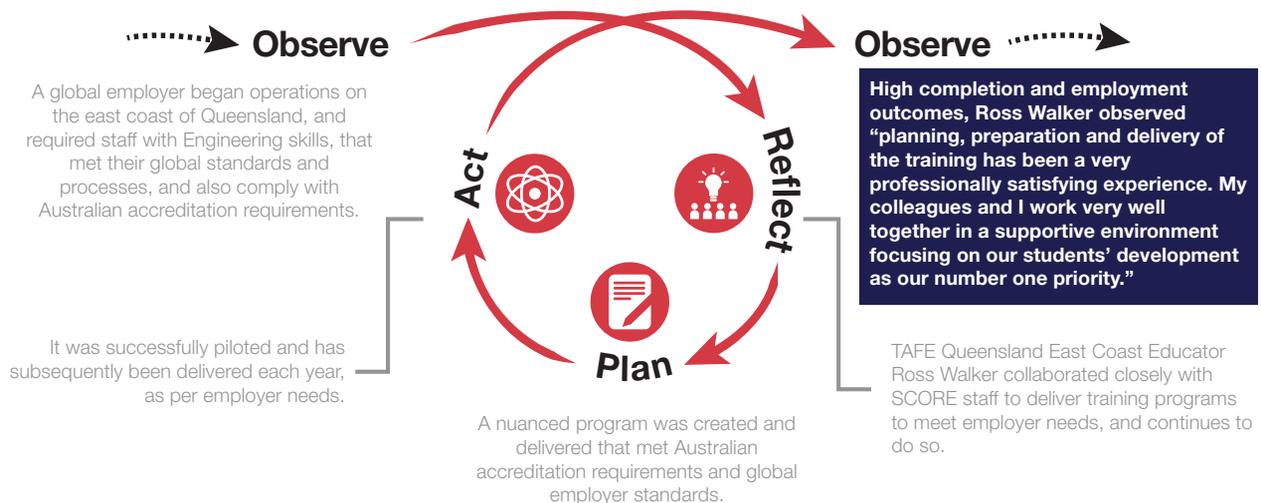
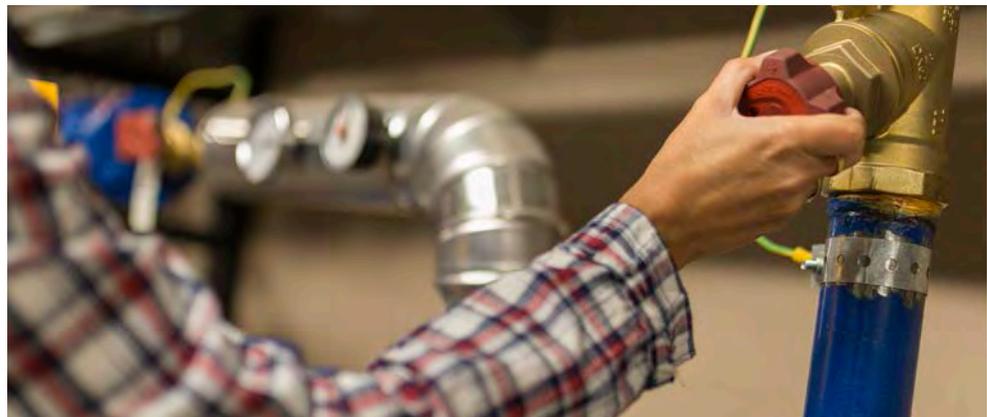


# Meeting a global employer need for local engineering apprentices

*Aligning delivery to global employer needs*

## Overview

Scottish company SCORE Group PLC opened a new facility in Gladstone to provide specialised support to upstream oil and gas facilities. The facility was equipped with the latest technologies, and SCORE required newly trained apprentices. In Europe SCORE delivered specialised in-house training programs with preferred pedagogies and these needed to be locally accredited. As their approach differed markedly to Australian apprenticeships, in 2012 TAFE Queensland East Coast collaborated with SCORE Group staff to create a tailored package to develop apprentices with specialised skills for the facility. The package included diploma pathways to a degree. Two TAFE Queensland East Coast faculty members deliver this training to fourteen apprentices per annum.



## CONTEXT

The SCORE Group PLC is an international organisation that provides engineering services, primarily to the oil and gas industries. It employs over 1,400 people in seventeen countries. The Gladstone SCORE facility is a bespoke 'intelligent valve management centre' providing support to upstream oil and gas facilities in the Surat Basin and midstream facilities on Curtis Island. SCORE staff supply, inspect, repair, modify and test valves, inspect whole supply chains, and provide engineering and field support, amongst other services to the oil and gas industry.

Staff movement between countries is encouraged at SCORE, and to support mobility they aim to deliver consistent training worldwide. SCORE International have a specialised training arm for the provision of high quality training experiences (both online and in person at training facilities) and the scale of its investment in training reflects its importance to the company.

In 2013 SCORE Brisbane Pty Ltd opened a facility in Gladstone to service the LNG plants being constructed on Curtis Island. A new intake of apprentices was required for the Gladstone workforce.

## Problem

In order to provide apprentices, the challenge for TAFE Queensland East Coast was to adapt the training program (which complies with Australian regulatory and accreditation requirements) to global SCORE requirements.



"We recognise the growth of the company is dependent on the growth of the people. Through training and guidance we assist our team members desires to realise their potential and select their own path to achieving their personal goals and dream,"

Charles Ritchie, Chairman SCORE  
(SCORE 2016)



## Approach

Bundaberg was chosen as the training site for two reasons: to target the comparatively high level of unemployed youth there who may be amendable to trades; and because TAFE Queensland East Coast had a partnership with the Bundaberg Regional Trade Training Centre, which has a strong base of technical skills in schools.

TAFE Queensland East Coast Educator Ross Walker conducted a training needs analysis in collaboration with his managers and SCORE personnel, and developed plans for program delivery and training. It emulated the SCORE International apprenticeship program and aligned with SCOREs key principles. Intended outcomes included:

- apprentices will be “work ready” when they begin work at SCOREs Gladstone facility
- apprentices will be assessed as competent in all but two of their stage one competencies before starting work in SCOREs Gladstone facility
- apprentices will be trained in and assessed for underpinning knowledge for all competencies of their apprenticeship before starting work in Gladstone
- apprentices will achieve tradesperson status in 3.5 to four years depending on progression (Walker 2015).

TAFE Queensland East Coast and SCORE co-promoted the apprenticeships and collaborated through the recruitment and selection process. Learners are funded by SCORE throughout the apprenticeship. The first forty weeks of the apprenticeship is undertaken within the TAFE Queensland East Coast Bundaberg engineering facility (including the workshop and machinery that simulates an authentic work environment), using online resources from the SCORE group and TAFE Queensland East Coast. Combining theory and practical teamwork, apprentices are scaffolded during the program (guidance and support gradually decrease) as tasks also become more challenging. Their progress is monitored weekly within TAFE Queensland East Coast and then at least quarterly within the SCORE workplace at Gladstone. Ross Walker also maintains regular informal contact with SCORE management and workshop supervisors throughout the program, to address individual apprenticeship issues and progression and secondly to evaluate program effectiveness.

All the learning was completed face to face at the Bundaberg TAFE Queensland East Coast Campus. In the first year learners develop practical skills within the TAFE Queensland East Coast Engineering facilities through project work that was developed with SCORE. Years two and three involve substantial on-the-job training at SCORE’s Gladstone facility. Assessment occurs on-the-job and is used to monitor and record progress of apprentices, for example with training logbooks and certificates, and these build into a portfolio of evidence to support their progress. In the final year apprentices receive specialised training and are then awarded a Certificate IV in Engineering, and the opportunity to consider Diploma pathways to relevant university study.



## Innovation

A key difference of the SCORE apprenticeship is that it is competency based, not time based. At SCORE group, apprentices can extend their training and personal development beyond the usual time scale of three to four years, so as to develop a lifelong career. The TAFE Queensland East Coast training pathway will take learners through the Certificate III qualification into Certificate IV and Diploma studies in Engineering, with articulation arrangements being developed that will allow for entry into degree level study.

Completion rates of the program were:

- 2013 – 14 started and 12 finished the program
- 2014 – 14 started and 12 finished the program
- 2015 – 10 started and 10 finished the program.

Since its inception in 2013, 38 apprentices who completed the program have been employed at SCORE. Six months into the delivery of the first SCORE program the TAFE Queensland East Coast team were awarded a Partnering Award at the TAFE Queensland Annual Staff Recognition Awards for developing the training strategy for the SCORE Group Apprenticeship Program partnership. Apprentices have successfully competed in external engineering skills competitions. Unfortunately, and perhaps due to economic and sector factors, SCORE intend to employ only one or two apprentices in 2017.

Walker (2015) reflected on the program and noted:

“Being involved in the SCORE Group Apprentice Training Program from its inception, through the planning, preparation and delivery of the training has been a very professionally satisfying experience. My colleagues and I work very well together in a supportive environment focusing on our students’ development as our number one priority. Training the apprentices continuously for such a long period of time is very demanding but also very satisfying. I get to know my apprentices very well, their personalities, their aptitudes and attitudes, and their aspirations.

Some issues with the SCORE Program that I need to devote more attention to are:

- expanding the range of practical tasks to be more aligned with SCOREs core business
- sourcing a larger range of digital resources for the learning
- approaching SCORE for industry release as professional development
- finding better ways to monitor apprentices as they work in Gladstone and around Australia.”

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## Acknowledgements

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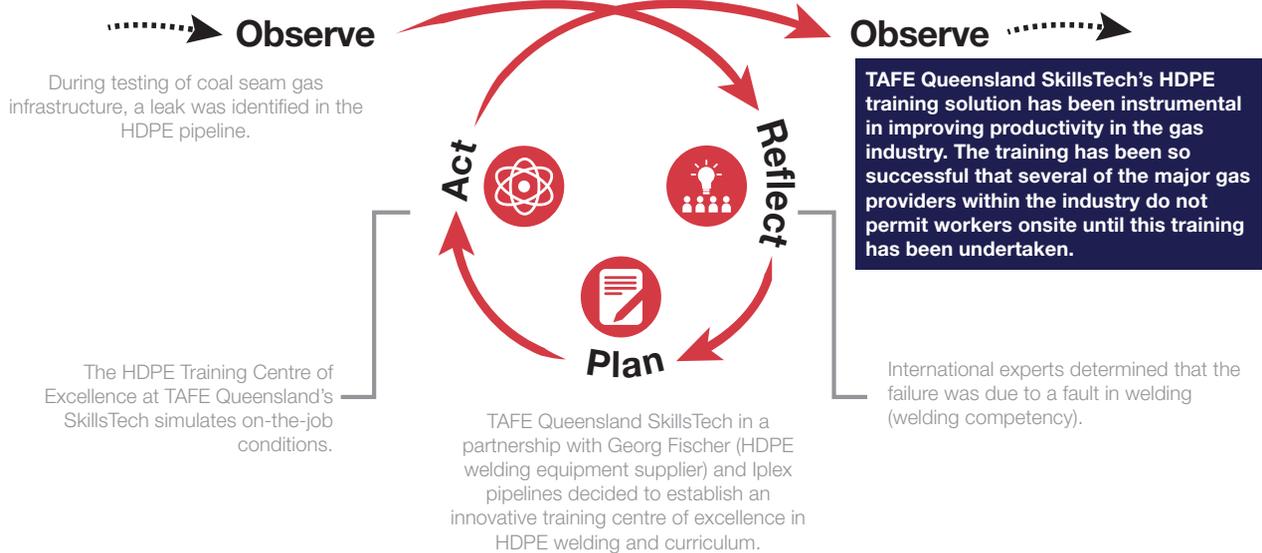


# Applied research mitigates the risk of coal seam gas pipeline failure

*Creating the joint Georg Fischer Iplex HDPE Centre of Excellence*

## Overview

TAFE Queensland SkillsTech was the driving force in the research and identification of a critical gap in the training of High Density Polyethylene (HDPE) welders for the coal seam gas domestic and export markets, which led to the establishment of the HDPE Training Centre of Excellence at the TAFE Queensland SkillsTech Acacia Ridge campus.



## CONTEXT

The extracting, transporting and converting of coal seam gas to liquefied natural gas represents an economic opportunity for the state of Queensland and requires a range of skill sets for the welding of hundreds of kilometres of large scale diameter HDPE pipelines. These pipelines are used to transport gas from the well head for separation, drying and compression. Typically these lengths of large diameter pipe are welded together, generally by butt fusion and to a lesser extent by electrofusion, to form a continuous sealed pathway for gas transfer. After hydrostatic or nitrogen testing for leaks, the pipe is buried up to 1.5 metres in the earth.



“Enforcing specific training processes has led to product risks being reduced and a significant improvement in welding success.”

Mark Holmes,  
Business Development Manager  
Georg Fischer

## Problem

With the natural movement of the ground or the transport of machinery, the pipeline can undergo stresses that, if not welded correctly, can cause the weld joints to crack releasing potentially harmful methane gas. This leads to loss of product, environmental concerns and a loss or reduction of upstream production. One such leak occurred in the Western Darling Downs region of Queensland in the early testing phase of the gas pipeline system. This raised the level of concern in the gas industry about the HDPE product risk and associated environmental hazards. As a result, the joint failure was analysed by international experts and it was determined that user error (sunscreen in the joint) was to blame rather than a HDPE product failure.



## Approach

Early discussions with the gas industry revealed a lack of training standards in the welding of HDPE, with many welders having little or no formal training or understanding of issues triggered by handling, preparation or environmental conditions of the polyethylene. TAFE Queensland SkillsTech recognised that a lack of formalised training processes and procedures may also be responsible for other major failures in the installation of HDPE pipe such as electro fusing saddles onto the HDPE pipe and saddle technology faults.

With industry support, TAFE Queensland SkillsTech responded to the challenge to meet this training gap by offering high quality HDPE welding training to the gas industry. However, while TAFE Queensland SkillsTech educators had significant expertise in the small diameter HDPE welding required for training gas and plumbing learners, they did not have the skills, equipment or resources required to deliver training on large diameter, high pressure HDPE pipe welding.

Around the same time, industry bodies and stakeholders in gas projects had also recognized similar problems and were requiring a higher level of security for the installation of large scale PE100 pipe lines. As a result, the Australian Pipeline and Gas Association (APGA) championed the development and introduction of a Code of Practice.

These conditions prompted TAFE Queensland SkillsTech to partner with international HDPE suppliers Georg Fischer and Iplex Pipelines who were both keen to address the gas industry perception of their product risk. Integral to the success of this partnership was the co-location of Georg Fischer and Iplex Pipelines to the Acacia Ridge training centre to establish the HDPE Centre of Excellence. The roles and responsibilities of this Centre are to provide:

- Georg Fischer –welders, hardware and hot tapping equipment
- Iplex Pipelines –all learning materials
- TAFE Queensland SkillsTech –workshop facilities, educators and regular field trips to the Western Darling Downs for verification of competency assessments on live gas and water mains.



## Innovation

The establishment of the HDPE Centre of Excellence enabled TAFE Queensland SkillsTech to offer the following industry solutions to improve the quality of HDPE welding:

- HDPE welding training that was aligned to the Australian Pipeline Industry Code of Practice for Upstream PE Gathering and the Plastic Industry Pipe Association of Australia Industry Guidelines
- HDPE welding training on the latest industry equipment;
- Theory based programs as well as a wide range of potential faults and problem solving techniques. Learners are also paired up to weld a range of pipeline diameters in various conditions that simulate on-the-job conditions;
- Compulsory revalidation of industry competencies every two years;
- Provision of an ID card to graduates with details of their level of qualification.

The Centre of Excellence now serves primarily as a training facility at TAFE Queensland SkillsTech and also as a demonstration/briefing venue for Georg Fischer and Iplex Pipelines clients and the gas industry. New or updated equipment is regularly rotated through the Centre. This ensures that learners are always training on the latest equipment and that educator skills are constantly at the forefront of industry requirements.

During the development of the Code of Practice, TAFE Queensland SkillsTech actively provided technical advice and practical examples to the various steering committees for the qualification of training methods associated with PE welding. This had the dual accomplishment of allowing the training programs to reflect exactly the high standards set down from industry requirements.

“The Code of Practice will continue to evolve to incorporate other practices within this field, and as companies like George Fischer introduce innovations to enhance both security and safety in product design, SkillsTech remains pivotal in maintaining up to date training programs and facilities meeting the flexible demands from industry.”

- Mark Holmes, Georg Fischer

The training has been positively received by industry to the extent that several of the major gas providers within the industry do not permit workers onsite until it has been completed.

More significantly, the commitment to improve the quality of HDPE welding also identified a strong industry demand for improved skills in hot tapping (drilling live mains to bring in new gas wells) and squeeze off of HDPE pipe (squeeze off is a popular means of shut down for the repair of damaged HDPE pipelines. However, the very nature of this task means that it can be extremely dangerous with high risk factors for employees and the environment). This is non-accredited training.

## Innovation (continued)

Accordingly, TAFE Queensland SkillsTech tested the skills of nine QGC (Queensland Gas Company) employees who had previously completed a one day course in hot tapping and squeeze off with another registered training organisation. Eight of the nine employees failed the test, leading QGC to seek recommendations from TAFE Queensland SkillsTech on how this training could be improved. As there was no recognised training program, a training program was developed in accordance with industry guidelines and it was recommended that QGC send their staff to TAFE Queensland SkillsTech for recognition of prior learning and gap training. Upon approval the training was successfully delivered within a 30 day timeframe.

Gas employees are now trained in the skills required to electrofuse saddles to HDPE pipe. This allows:

- Branch lines from live gas wells to be tapped into live gas mains;
- High level vent lines to be to be tapped into live water mains to remove gas;
- Low level vents to be tapped into live gas mains to drain excess water away; and
- Verification of this skill set on site on live mains.

The outcomes of this training are:

- The HDPE welding, hot tapping and squeeze off training delivered by the Centre of Excellence is regarded as best practice by major companies in the gas industry (QGC, Origin, Leighton and Murphy Pipe and Civil);
- TAFE Queensland SkillsTech HDPE Centre of Excellence has been instrumental in the introduction of a Code of Practice for this industry. This has since been legislated in Queensland and consequently forms the basis for all aspects of PE welder training;
- Significant reductions in weld failures resulting in positive impacts on product loss rates. There have been no reported notifications of any weld failures following training;
- As a quality assurance measure weld quality is now comprehensively monitored by gas companies. Employee numbers and GPS co-ordinates are recorded for each weld;
- Key additions to the PMB30107 Certificate III in Polymer Processing training package with participation and input to safety and development of work method statements in conjunction with industry;
- Apprentices and trainees can now access this training as part of plumbing and gas training courses;
- Coal seam gas workers can now qualify for two HDPE welding units of competency - butt fusion welding and electrofusion welding - with new training courses developed and delivered in hot tapping and squeeze off to enable repair of damaged pipe work.



The knowledge and experience gained from this training has expanded the capability of TAFE Queensland SkillsTech to take on more challenging and innovative training opportunities. The training has now been delivered to local government in Tasmania, and there is potential for this training to be replicated in other sectors such as sewerage, irrigation and water.

This project has demonstrated the value of systematically monitoring gas industry trends in helping to forecast industry needs and plan for future training programs. However, it has also shown that such observations need more detailed discussions with the industry to accurately identify the real issues. Partnering with the gas industry to offer training then ensures ongoing industry relevance. The resulting courses are often ahead of industry training packages and can input into their updating. This approach has the potential to position the partners as innovative thought leaders:

“Prior to training being introduced, there were regular HDPE weld failures due to poor installation. Enforcing specific training processes has led to product risks being reduced and a significant improvement in welding success. Electrofusion is now widely accepted by the gas industry, and training programs are now being developed in support of the industry code of practice requirements.”  
- Mark Holmes, Georg Fischer

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## Acknowledgements

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# **APPLIED RESEARCH AS A TEACHING PRACTICE**



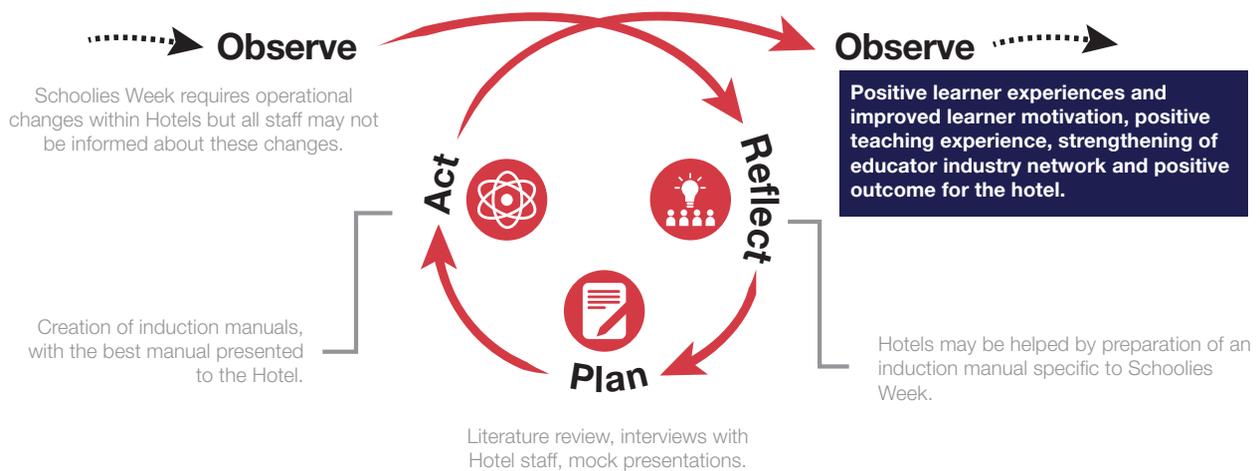


# Hotel induction planning for Schoolies Week

*Preparing hotel staff for challenging environments*

## Overview

Katie Coyle is an educator within the TAFE Queensland Brisbane College of Tourism and Hospitality. She teaches fifty learners within the Diploma of Hospitality and part of the program involves an industry project for learners to learn the hospitality induction processes. She identified the problem that hotels change operations during Schoolies Week, yet those changes may not be consistently communicated to staff. She used her industry network to obtain an introduction to a specific hotel centrally located to Schoolies Week activities on the Gold Coast, and negotiated a solution that involved her learners creating an induction process and resources for the hotel.



## CONTEXT

The Mantra Sun City hotel is a four star luxury resort style hotel offering 190 one, two and three bedroom apartments and penthouses. It is in the heart of Surfers Paradise on the Gold Coast, and so is centrally located for Schoolies Week activities.



**“The Schoolies manual is absolutely fantastic and I can’t thank you and the students enough for the work that has gone into this. Please pass on my sincere thanks to the students and of course yourself for coming up with this initiative, it’s fantastic.”**

Damian Sillars  
General Manager  
Mantra Sun City

## Problem

Hotels operate differently during Schoolies Week as there are significant numbers of school leavers congregating in tourism hot spots, and operations change for all customers, not just school leavers, during that time. Most hotels make all potential customers aware of the changed circumstances at the time of booking, however they may not be as consistent when informing staff. Some new employees may not know about Schoolies Week, for example those who come from overseas or interstate. While all new staff complete induction and orientation programs, operations and rules differ during Schoolies week: security is heightened, there are different policies and procedures about complaint handling, and stricter house rules. These operational changes may not be disseminated consistently to all employees. For example, a new employee may be a casual housekeeper who is also an international learner and doesn’t know about the impact of Schoolies Week. Without this context, the change may be confronting, so it is therefore important to ensure staff are informed and confident when faced with increased cleaning, security challenges and access issues. Ultimately it is important that employees work in a safe environment, and are informed about what to do and how to respond in a heightened security or safety risk situation.

## Approach

Katie Coyle identified a need to clearly and explicitly record the changed environment and processes, and disseminate the changes consistently to all hotel employees so that the rationale is understood and rules are applied consistently across all hotel employees. She specifically targeted the Mantra Sun City Gold Coast because it is a large scale resort centrally located to Schoolies activities. However she did not know anyone in the hotel, so she used her industry network to achieve an introduction. She proposed her idea to Damian Sillars, General Manager, Mantra Sun City and was able to achieve agreement on a mutually beneficial project. Katie then drafted the learner assessment and prepared task instructions and marking criteria to ensure they mapped to accreditation requirements. She provided an outline to the general manager of Mantra Sun City for review and input and to ensure they felt comfortable with the project.

Katie then introduced the project to learner cohort as their assignment. They firstly researched the background to Schoolies Week, including school student support options (Red Frogs, volunteer groups, events and risks etc.). For more specific hotel information, Katie organised a trip of the full cohort of fifty learners, the unit tutor and herself to the Gold Coast to inspect the hotel and its facilities. Beforehand learners were briefed by Katie on professional conduct and strict uniform requirements of the TAFE Queensland Brisbane College of Tourism and Hospitality. At the hotel they met with key staff and interviewed them at an information session. Learners asked staff pre-prepared questions relating to the assignment. Staff were happy to contribute and help, and gave all the information needed. The learners then visited key Schoolies Week sites (including Cavill Avenue and planned beach party locations).

In the next lesson back at the TAFE Queensland Brisbane campus, learners began developing the induction manual in 25 teams of two. This included each pair signing a contract outlining respective responsibilities with each other. In that way Katie Coyle could monitor the work being undertaken for assessment purposes. Learners began preparing their advice and upon completion the manuals were presented to the class for feedback and assessment. The presentation was also a mock delivery of induction training, with the class role playing as new employees. She observed some learners enjoyed the theatricality of the presentations and mock induction. Best policies were selected for further refinement and presented to the hotel as professional documents.

Marking the course assignment was a significant piece of work, especially when the assignments were only one element of the course, but Katie Coyle was able to obtain support from peer educators in the TAFE Queensland Brisbane College of Tourism and Hospitality during the heavy workload phase.



## Innovation

Learner feedback on the project was positive. Katie Coyle observed that they initially were hesitant about venturing outside of their normal class routine and visiting the hotel, commenting 'we don't want to go', and asking 'what time will we be back?' However, as soon as they were onsite their attitudes completely changed. When they stepped inside the hotel she suggests there was a 'wow factor' of 'oh my gosh I'm really here,' and she observed them looking at the staff and perceived they were thinking 'hey you're not that much older or experienced than I am, I can work here'. They may have thought comparatively, 'this could be me, I could really be working here in a few months'. Hotel staff were delighted with the engagement as they were asked many questions, sometimes off topic, but Katie Coyle felt that was OK, emphasising the process of interviewing is also a skill that needs to be learned.

Upon reflection, she noted her pleasure at watching the learners enjoy presenting to peers acting as induction employees. She describes her classes as being about fun, learning together, and industry engagement. She finds her learner cohorts thrive on it, they were motivated, and it helps with the completion of assessments. Learning is more vivid because it's applied, for example they have the visual of the hotel pool area and the workplace risks inherent in their mind. She finds the learners who excel have had their motivation boosted not only from the site visit but also by the notion that 'my induction policy might be implemented at this hotel'. She enjoyed observing the sense of achievement experienced when she told the pair of learners 'yours is the one we are going to deliver to the hotel'.

Katie Coyle has since delivered several projects involving work-based active learning with an applied research focus. She suggests that while it is sometimes difficult to secure them, once the project is underway it's more beneficial for the learner, they learn more and have fun doing it. To set it up sometimes involves using industry networks and 'cold calling', and she noted when she was less experienced and her network was nascent she literally 'cold called' hotels, which takes confidence. It also requires a significant amount of organising – email correspondence, documenting expectations and more. The first two weeks are most intensive for setup; however she reflects that every subject has some intensive element that may not have been done previously. After 'cold calling', her very first industry project was cause for celebration and from there it has become easier. She now has an industry network and processes she follows for applied research projects. For example, initially she used official channels to contact Mantra and didn't get a response, so someone in her industry network put her in touch with the relevant general manager who was delighted and enthusiastic to help, because he understood that it was an important operational need.

Katie Coyle also recommends:

- Establishing and agreeing goals upfront, including how employers will provide feedback;
- Educators running applied research projects should keep in frequent contact with the employer; and
- Educators should clearly brief learners on how much communication they are allowed with the client (some learners are embedded in the workplace and collaborate, whereas some clients ask that the educator be the point of contact).

Overall Katie believes applied research projects are "definitely one of the assessments we look forward to."

Feedback from Damian Sillars, General Manager Mantra Sun City included that "it was a great initiative and the document is actually great," and the "Schoolies manual is absolutely fantastic and I can't thank you and the students enough for the work's that have gone into this. Please pass on my sincere thanks to the students and of course yourself for coming up with this initiative, it's fantastic."

---

## Acknowledgement

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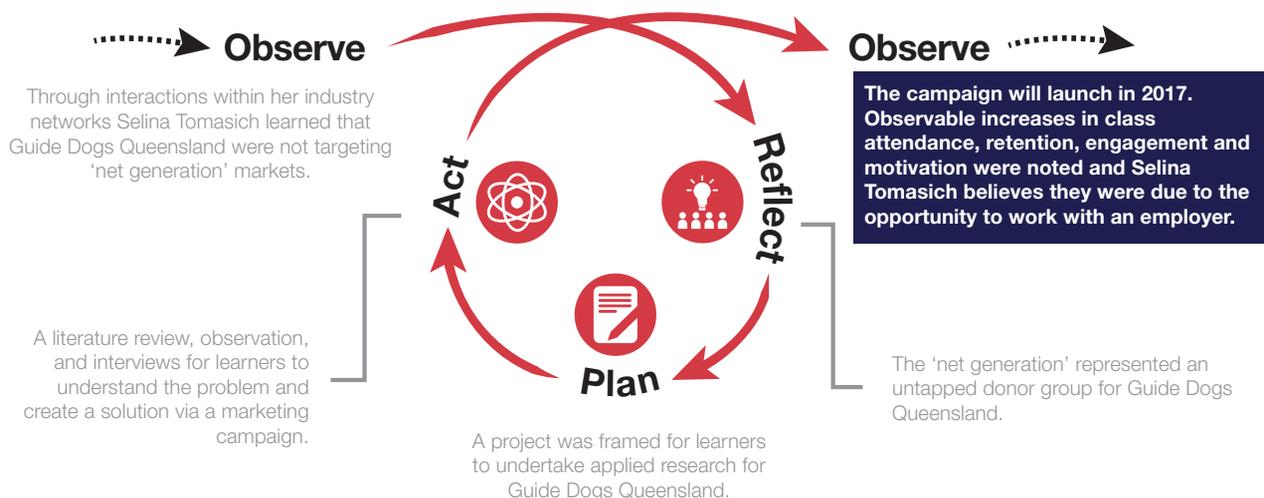


# Guide Dogs helping learners develop marketing skills

*Applied Research as a learning approach*

## Overview

'Real world' project-based learning is an integral part of learning within the Business Faculty at TAFE Queensland Brisbane. Team Manager Selina Tomasich worked with the Guide Dogs Queensland management team who required support to understand why some donors, specifically the 'net-generation', did not engage with Guide Dogs. This led to a project where learners researched and prepared a marketing campaign for Guide Dogs Queensland that targeted the 'Net Generation' (youth aged up to 16, who are 'born digital'). She observed that the approach and involvement of Guide Dogs improved class attendance, retention, engagement and motivation. Guide Dogs Queensland management were presented with the new marketing campaign ideas and are now working with the learners on a further project to expand the Workplace Giving donation scheme.



## CONTEXT

Since 1960 Guide Dogs Queensland has helped to equip, empower and educate thousands of Queenslanders of all ages each year who are blind or vision impaired. Their range of orientation and mobility services are offered free of charge, and are funded by public donations (with seven per cent funding for specific rehabilitation services). Guide Dogs Queensland relies upon an army of passionate volunteers to achieve its aim of helping people to overcome the disadvantage of vision loss to live full and independent lives.

Selina Tomasich teaches a Certificate IV Diploma of Marketing and embedded within every unit are 'real world' projects and assessment. This approach develops enterprise skills and provides learners with a portfolio of evidence to showcase their work to potential employees.



## Problem

Through interactions within her industry networks Selina Tomasich identified that Guide Dogs Queensland required support to understand an untapped donor group, the Net Generation.



“We loved having Guide Dogs Qld at the TAFE campus. It was a significant part of our learning experience. To see firsthand in a practical manner, how effectively a guide dog improves a vision impaired person in the community is inspirational.”

TAFE Queensland Brisbane  
Diploma Marketing learner feedback.

## Approach

In response, she scoped a project through which Certificate IV Diploma of Marketing learners could respond to this for Guide Dogs Queensland. In 2016 she embedded a component of the research project within every unit of the program, and it involved two faculty members and 62 learners across two campuses.

Learners undertook the project in three phases: Research, Development and a Campaign. During Phase One learners researched the 'net generation' to identify characteristics and factors of their engagement with charities and volunteerism. It took the form of a 'Think Tank' workshop to explore and understand Net Generation attitudes.

Phase Two involved creating a Guide Dogs marketing campaign for the Net Generation. This was followed by an immersion visit to Guide Dogs where learners were shown how dogs are trained and to understand their roles. A visit by the Guide Dogs staff and dogs to TAFE Queensland Brisbane was also arranged, and they walked through the campus to promote awareness. This also informed the marketing campaign to be developed.

Phase Three involved creating a marketing campaign for a workplace giving donation campaign. Learners developed public relations, planning, social media and marketing plans to raise awareness for the existing Guide Dogs workplace giving donation campaign, to be delivered across TAFE Queensland Brisbane and to other strategic partners. Upon completion, learners presented their plans and delivered media packs to Guide Dogs Queensland, and were awarded Certificates of Participation. Guide Dogs Queensland has agreed to use the learner work in iconic promotional campaigns commencing 2017.

The project ran for ten weeks until the end of semester in May 2016. Selina and the marketing teachers developed tasks to reflect the requirements of the Guide Dog projects and data. For example, to prepare a budget the learners used data from the Guide Dogs Annual report available from their website. To ensure the TAFE Queensland brand was promoted, teachers briefed learners on appropriate professional attire and behaviour, prior to a site visit. The class included learners aged under 18 years, and so permission from parents was required, especially because learners were tasked with finding their own transport to the Guide Dogs premises. They were also required to work in with timetables of Guide Dogs volunteers. The project required no additional funding.



## Innovation

Observable increases in class attendance, retention, engagement and motivation were noted and Selina Tomasich believes it was due to the opportunity to work with industry. Learners gained positive work practice training such as having to organise their own personal logistics and travel arrangements for the site and having to work within the timetables of Guide Dogs volunteers.

She noted her delight at observing that “what we teach is executed in the marketplace.” Surprisingly, her biggest challenge was getting educators on board to the different pedagogical process, as it was implemented quickly. However the project success in raising the profile, as well as praise for learners and the project provides support for the extra work it initially involved. Selina has a wealth of experience in project based learning, and she advises that:

- managing external stakeholders is a different educator capability, and some project management skills are required including an understanding of the legal, policy and procedures of project partners, as well as industry currency and maintenance of industry networks. There is a high level of skill in this area in TAFE Queensland Brisbane as a high proportion of the educators also work in industry
- care should be taken in selecting potential industry partners, especially regarding any potential public liability, and it is beneficial when they are located close to campus for logistical reasons
- there are benefits from working with community groups and charities, namely the community benefit and social good
- Educator proficiency in managing learner projects with industry will build cumulatively with experience. TAFE Queensland plans to support such projects.

Learner feedback included: “the information I learnt from this will stay with me forever.” Marketing Educator Steve Farne Sang noted:

“Personally I can see that this overall experience has focused the students towards a very important and worthwhile cause. Working with any charity is a great experience for everyone. Match this with the additional pleasure of interacting with the puppies and dogs provides a fun and educational experience that is unique to TAFE Queensland Brisbane.”

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## Acknowledgement

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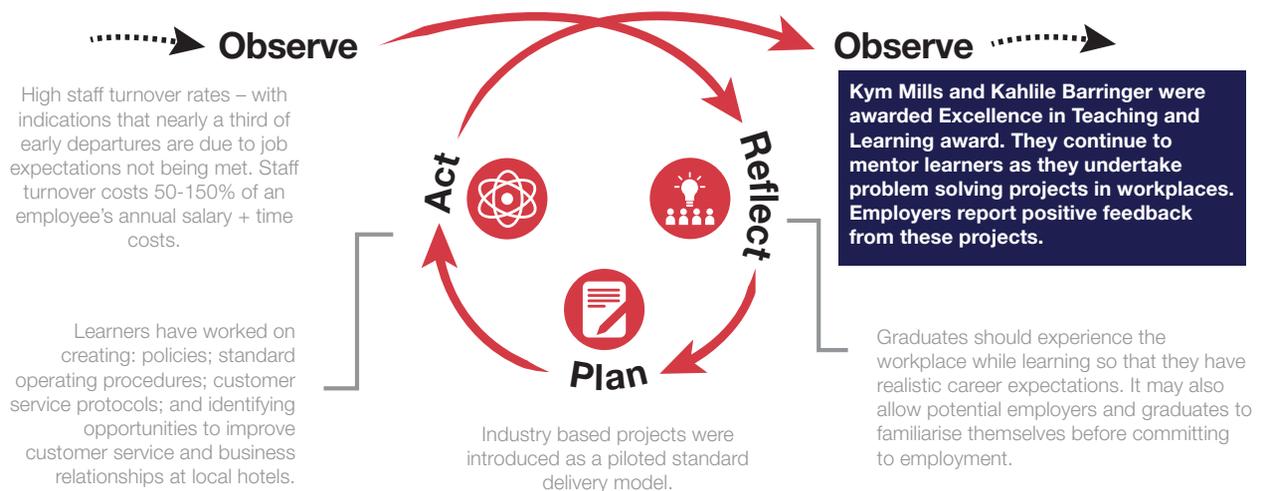


# Workplace research enables hospitality learners to vision future careers

*Grounded learning in real workplaces*

## Overview

The TAFE Queensland Brisbane College of Tourism and Hospitality (COTAH) School emphasises workplace learning. A benefit is that it establishes realistic career expectations for hospitality learners, and so minimises the risk of unmet expectations when they enter the workforce. The approach potentially reduces the major cost of employee turnover in the hospitality sector. This project was led by Kym Mills and Kahlile Barringer who were educators within COTAH.



## CONTEXT

COTAH courses are designed in close consultation with industry to ensure that training is highly relevant and matched to current and emerging employer needs. COTAH offers eighteen industry-focused programs ranging from certificate II to diploma, allowing learners choice across a range of disciplines and levels in their chosen field. Each year more than 1,500 learners complete a certificate or diploma program through COTAH. COTAH's overarching goal is to demonstrate a philosophy of project-based experiential learning that engages both learners and industry, using dynamic teaching practices to nurture students into industry positions by engaging major industry partners in consultative and collaborative styles of learning. A key contributor to COTAH's ongoing success is its continuous engagement with the tourism and hospitality industry, having worked in collaboration with industry since 1985.

A quarter of the national tourism workforce is based in Queensland and it is identified as one of the 'four pillars' of growth under the Queensland government's future economic plan (*Queensland Department of State Development 2013*). Tourism and Hospitality workers provided services to 1.5 million international visitors and 5.5 million interstate visitors in the year ending September 2013 (*Tourism Events Queensland, in Deloitte Access Economics 2014*). According to Deloitte Access Economics the Queensland hospitality and accommodation sector accounted for around 64,610 jobs in 2013-14 (with 27.7% of employees holding VET Qualifications), with a forecast to 71,000 FTEs by 2018-19. They believe the bulk of growth will be in the Greater Brisbane region.



## Problem

Hospitality workers often work long and anti-social hours in low status roles and the sector has very high staff turnover rates – with indications that nearly a third of early departures (within 90 days of commencing the job) are due to job expectations not being met and nearly another third are due to dissatisfaction with management (Frontline Hospitality 2013). Staff turnover costs range from 50-150% of an employee's annual salary (ibid) and represent a major cost – both time and financial - to hospitality employers. A key challenge to the hospitality industry is the recruitment and retention of staff members who are committed to the industry, who understand the business and have suitable skills, knowledge and attitude.

COTAH continually looks for opportunities to re-invigorate its identity and brand. While COTAH have never lost their ability to provide exceptional practical training experiences, in 2013 educators sought to refresh the programs. Two areas of focus were identified: (a) instructional techniques for non-practical classes were of the traditional mode; and (b) over time TAFE programming and activities had become more inwards focused and required closer ties with industry. For example the final semesters of a Diploma program were theory focussed and learners had heard anecdotal evidence that the final semesters were unexciting, difficult and arduous with a high attrition rate, and many were nervous about this prospect.



**“The project based approach had a high level of engagement with industry and was constructed to facilitate the development of higher order thinking skills and the highly essential employability skills. The outcome was exemplary.”**

Julie Healy,  
Director, Centre for Learning and Teaching  
TAFE Queensland

## Approach

Educators asked whether final year hospitality learners could experience the workplace, so that graduates have realistic career expectations when they enter the workforce. COTAH hypothesised that training could be refreshed with a focus on:

- experiential learning;
- industry based projects;
- blended delivery; and a
- customer service ethos.

An emphasis on workplace training may enable learners to enter the workforce with realistic expectations, and may allow potential employers and graduates to familiarise themselves before committing to employment. Industry based projects were introduced as a piloted standard delivery model. The work was undertaken with Diploma of Hospitality learners and the Industry Based Project was framed as a “mini-consultancy” – or applied research project - for the Jephson Hotel.

Six units within the final year of a Diploma that were traditionally delivered separately and independently by three teachers across a semester with 34 individual assessment items were ‘recalibrated’ and within two weeks Mills and Barringer combined the units, mind mapping each unit of competency into an industry focussed and holistic delivery model with three pieces of integrated assessment across the project. They aimed to assist learners’ transition to the workforce by creating a structured weekly program that provided scaffolded experiential learning opportunities linked to the Jephson Hotel as the main focus, but also engaged with other local hotels. The learning methodologies and assessment tasks within the project were focussed on industry challenges.

At the Jephson Hotel, learners were briefed by the Hotel General Manager and then worked on creating: policies; standard operating procedures; customer service protocols; and identifying opportunities to improve customer service and business relationships. A key tool used by teachers and learners was a closed Facebook group set up for the Jephson Hotel to foster communication, workplace skills and a collaborative community of practice approach. Mills and Barringer established and implemented a strict Code of Conduct surrounding the use of this Facebook group and overcame barriers with the use of Facebook including connectivity and appropriateness that promoted business etiquette, clear lines of communication, ethical behaviour and ownership of the learning experience.



## Innovation

Kym Mills and Kahlile Barringer believe the workplace learning experience created a sense of ownership and importance to the learners undertaking the project. Learners met all of the staff and management in the hotel and saw an authentic need and outcome for their work. Consequently they were far more invested in participatory learning. The project was of significant benefit to the hotel who were provided with a range of worthwhile and usable outcomes including: legal policies, operating procedures, customer service protocols, ideas to improve customer service and enhance business relationships, rosters and budgets.

Graduate feedback included comments such as: engaging, inspiring, rewarding, real-world, fun, worthwhile, confidence building, enjoyable and challenging. A validation of the project and assessments was carried out at the end of the semester and the body of work was described as an “outstanding example of engaging project based learning to be used as a model across all teams.”

Learners were able to add an industry focused project to their resumes (enhancing their competitiveness in employment opportunities). In the final presentations, a board member from the Jephson Hotel praised their efforts and encouraged them to use their assessment items as examples of their work outputs and in their future work. The hotel implemented many of the project outputs.

Kym Mills and Kahlile Barringer openly shared their expertise, outputs and learning through mentoring of colleagues and in-house presentations. They were awarded an Excellence in Teaching and Learning award, notably because:

“The tasks were the epitome of excellence – authentic, real, meaningful student centred learning and assessment. The project based approach had a high level of engagement with industry and was constructed to facilitate the development of higher order thinking skills and the highly essential employability skills. The outcome was exemplary.”

- Julie Healy, Director, Centre for Learning and Teaching, TAFE Queensland

The program continues to be iteratively improved based upon ongoing learner feedback, industry input and experiences with other employers. For example they collaborated with The Point Hotel at Kangaroo Point in Brisbane, where learners were involved in increasing customer satisfaction in the three departments of: Front Office, Food and Beverage, and Housekeeping. This included creating staff surveys and analysing the results. The learners also were asked to create strategies to improve guest satisfaction, with a number of suggestions being implemented by the Hotel. Kym Mills and TAFE Queensland Brisbane colleague, Sue Hooper, further collaborated with the Sofitel Brisbane to analyse why ‘Gen Y’ employees were not being retained in the industry, and with O’Reilly’s Rainforest Retreat, where an online induction program was created for all staff and then specific departments. This program is still being used by the staff and management of O’Reillys. As at Semester two 2016, their learner cohort are creating induction policies and procedures for volunteers of the 2018 Gold Coast Commonwealth Games.

Ongoing feedback from industry partners is positive, for example:

“Hilton Worldwide are always seeking to attract and retain the best talent in the industry. Having a pool of highly trained and motivated individuals who come to us ‘work ready’ through the Queensland Hotel & Hospitality School will help us achieve that aim.”

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## Acknowledgements

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# **ACTION LEARNING AS A TEACHING PRACTICE**



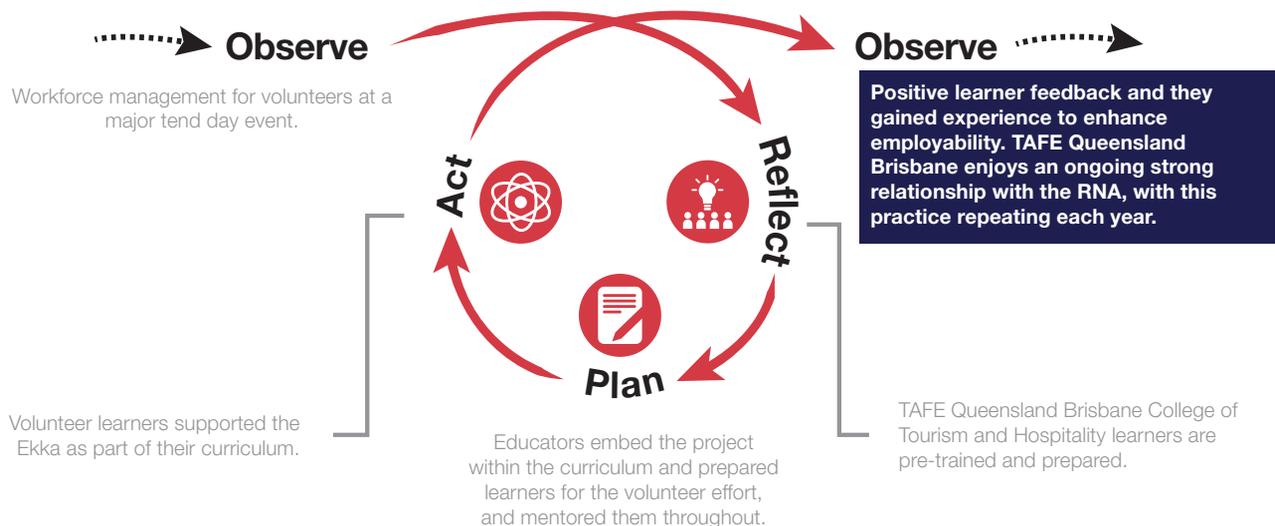


# Workplace-based learning at the Ekka

*Developing enterprise skills on the job*

## Overview

Project based learning is embedded within TAFE Queensland Brisbane College of Tourism and Hospitality Diplomas. Educator Fiona Lambert notes “the actual activity doesn’t matter as much as the work skills developed during the project and the sense of empowerment to act,” and the course content and goal may be a secondary consideration to the development of behavioural and enterprise skills. This may be exemplified by the long term relationship that TAFE Queensland Brisbane holds with the Royal National Agricultural and Industrial Association of Queensland (RNA).





## CONTEXT

The Royal Queensland Show affectionately known as Ekka is Brisbane's largest cultural festival, an annual event held since 1876 at the Brisbane Showgrounds over ten days each August that draws over 400,000 visitors and even has its own public holiday. The Ekka includes a range of competitions, award ceremonies, exhibits, animals, performers, educational displays, a sideshow alley, showbag pavilion, food and beverage outlets and nightly fireworks. It is managed by the RNA.

## Problem

At an industry event, Glenn Anderson and Tony Laffin of the RNA started a conversation about the workforce problem at the Ekka. What is little known about the Ekka is that an army of volunteers helps to support its operations. However often the volunteers have little experience of event work, they lack the knowledge and skills and to some extent commitment. This draws upon RNA resources – they need to spend more time managing their volunteer army than managing the event.



**“The actual activity doesn't matter as much as the work skills developed during the project and the sense of empowerment to act.”**

Fiona Lambert, Educator,  
TAFE Queensland.

## Approach

The team of educators from the Diploma of Events saw the community and educational benefit of supporting the Ekka at scale, and framed it as a learning opportunity that could be mapped to the curriculum and competency outcomes. They recognised that learners may not have any prior events experience and saw it as a kind of ‘forward recognition of prior learning’, and flipped learning.

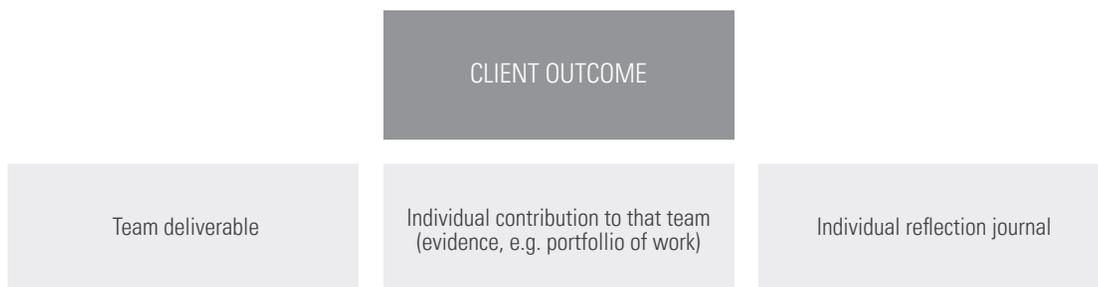
The roles they scoped and proposed to the RNA included: general volunteering (ushering, mascots), stage assistants, cooking demonstration assistants, managing an IT budget, venue setup and dismantling, and marketing support. For example, an intern was required to liaise with school bands to manage the logistics of their performance. Fifty learners supervised by four educators volunteered to support the event in the initial 2012 pilot. Learners were asked to submit applications for internships - to be responsible for key aspects of the Ekka event management - in professional letters that responded to a brief from the RNA. The team of educators provided feedback to learners and screened their applications before sending them to the RNA event managers for selection. The event managers shortlisted thirty to fifty learners for internships, to help volunteers support the operations of the Ekka. They were allocated roles and were briefed on expectations and processes by RNA staff.

The Educator team amended the Events unit they were teaching to include the Ekka as part of their curriculum. Assessment included:

- educator observation, informed with checklists and reflection journals that learners submitted
- learners’ documentation which included photos, videos and reports as evidence. This became their ‘personal portfolio of evidence’ and reflected their contribution to deliverables
- formal learning assessments.

The assessment could be shown as:

Figure 1: Ekka Placement Assessment Schema



The interns successfully concluded their work as the Ekka finished. The same process was repeated and iteratively improved in following years to meet the needs of both the Ekka and the Diploma of Events program.



## Innovation

The placement of TAFE Queensland Brisbane College of Tourism and Hospitality learners meant that Tony Raffin of the RNA's role changed to become one of oversight; he trusted the interns to act as supervisors of specific activities and this freed up his time to focus on more serious issues. To aid iterative improvement, every year TAFE Queensland Brisbane educators survey learners after the project has concluded. A question asked was:

What was the biggest challenge of the event?

(a) running the event (for example, logistics, marketing, legal compliance)

(b) working as part of a team towards a common outcome (for example, practicing respectful interpersonal communications, confidence and problem solving).

Of about 100 responses, only one learner nominated (a) and all others selected (b). Fiona Lambert concluded that via project-based learning, educators spent more time counselling individual learners on enterprise skills including interpersonal communication and confidence, project and time management. For example she recalled a learner telling her: "I've texted three times to get an answer," and her response "did you call them?" To address identified reluctance by some learners to speak directly with clients over the phone, Fiona Lambert wrote a script to support their professional phone conversations. These enterprise skills tend not to be explicitly recognised in training packages, and are best gained via action and reflection.

Upon reflection on the Ekka experience, the educator team suggests benefits include:

- Learners cement the theory learned in the classroom through practice – for example, developing creative concepts and managing budgets. They gain entry to industry networks and potential mentors, enterprise skills and a professional mindset.
- Practical knowledge - a TAFE Queensland Brisbane learner was placed at an event with University students, and knew more of what to do than they did. Fiona Lambert proudly observed that the learner used common sense and was unafraid of the hard work involved in supporting the event. The learner took action, whereas the University students were more apprehensive and uncertain. This may be because TAFE Queensland Brisbane educators were mentoring their learner cohort throughout.
- Insights gained from keeping reflection journals – learners regularly wrote their reflections on activities. This task underpinned the development of their enterprise and problem solving skills because through writing they were able to think through the challenges they faced. The reflection journals were then submitted for individual assessment as a part of the portfolio of evidence.
- VET institutional outcomes include graduate employability and reinforcement of project-based learning as a pedagogy.

Fiona Lambert observed from her experience that there is a distinct difference between workplace learning, experiential learning and applied research. She noted that the differences are often borne by how educators frame each project, for example, how they map the project to their curriculum and assessment and how they facilitate learner development of enterprise skills. She uses a set of criteria to filter requests from employers for learners to undertake projects with TAFE Queensland Brisbane College of Tourism and Hospitality cohorts, to filter out projects with low learning opportunities, or employer expectations that veer towards consulting or 'free labour'. She ensures that there is a learning opportunity that it is mapped to accredited curriculum. Fiona Lambert has now been promoted into a role within the TAFE Queensland Centre for Learning and Teaching.

TAFE Queensland Brisbane learners continue to participate in a variety of events at the Brisbane Showgrounds – not only at the Ekka – growing the ongoing relationship between TAFE Queensland Brisbane and the RNA and Showgrounds.

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## Acknowledgement

### Fiona Lambert

Educator

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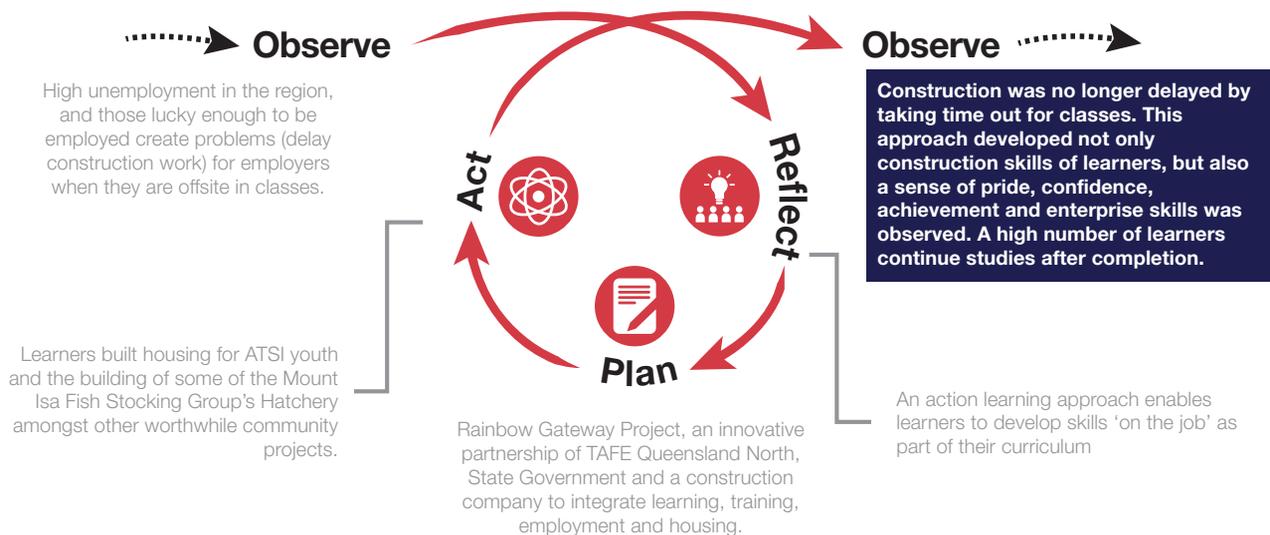


# Community construction partnerships in Outback Queensland

*Learners constructing future skills*

## Overview

Youth unemployment in outback Queensland is 36 per cent per annum (QGSO 2016) – the highest youth unemployment rate in Australia. It is difficult for inexperienced youth to secure jobs and so TAFE Queensland North training programs aim to develop skills that match employer needs. Some learners study while also working on construction projects, however TAFE Queensland North educator Vaughan Wakefield heard of examples where local construction projects were delayed by student absences when they were required on campus. He reflected on this and proposed a solution via the ‘Rainbow Gateway’ project - a landmark partnership between TAFE Queensland North, the Queensland Government Department of Housing and Public Works and construction company Myuma Pty. Ltd. The project is an integrated training, employment and housing solution for Aboriginal and Torres Strait Islander (ATSI) youth in remote Queensland. Through this and similar projects he embeds construction theory in practice while his students lead ‘live’ projects. Outcomes include: graduate employment or pathways into further study, community development (building of new community facilities), minimised training costs, recognition by parents and local media, and awards from the Queensland State Government and TAFE Queensland for innovation and excellence. Most importantly this training approach helps to engender pride, confidence and enterprise skills in learners.



## CONTEXT

Vaughan Wakefield is a highly respected primary industry and construction educator in the Mount Isa region of TAFE Queensland North. He delivers training in Certificate I in Carpentry, Certificate II in Cabinet Making, Certificate II in Civil Construction, Certificate II in Aboriginal House Maintenance, Certificate III Carpentry and Owner Builder Short Courses, as well as the Certificate II in Horticulture, and Certificate II in Conservation Land Management.



“I think the teacher is joking, there is no way we can build that.”

... and several weeks later:

“I can’t believe we built that, this is very different from Minecraft!”

TAFE Queensland North learner

## Problem

Vaughan Wakefield observed three interrelated problems, namely high youth unemployment and consequent low levels of confidence and pride, and thirdly the employed youth in his construction programs needed time off work to attend classes on campus and this delayed commercial construction projects, which put pressure on both his learners and employers.

The decline in mining jobs affected confidence in the Mt Isa economy with a knock-on decline in construction activity. This raised two key problems: youth unemployment and those in jobs needing time off work for training. Youth unemployment in outback Queensland is currently at 36 per cent per annum (QGSO 2016). Vaughan Wakefield observed that the lack of employment opportunities generally affects youth confidence, motivation and pride. A potential solution is to deliver training programs that develop new skills. Youth who are in training while also working are asked to take time out from their jobs to attend classes. Vaughan Wakefield learned that local construction projects were delayed by learner absences when they were required on campus.

To address this Vaughan Wakefield wanted to instil a sense of pride and confidence in his learners and for his learners to have the opportunity of impressing potential employers with their skills, commitment and aptitude.



## Approach

Vaughan Wakefield reflected on the problem, and proposed a resolution that involved action learning.

## Innovation

He made a number of key changes in his practice and, in doing so, developed a unique teaching style, including:

- advocating 'real world' learning experiences. Instead of delivering training on campus, Vaughan trains on-the-job, on-site or wherever his students are doing work experience or industry placements. Theory is embedded into on-the-job learning
- redefinition of his teaching role to emphasise coaching and mentoring
- implementation of self-paced learning, where learners can both work and train according to their employer's timetable, and also choose to complete units in order of interest and relevance
- customisation of theoretical learning resources by replacing text with his own project photos, because his learner cohort was highly visual and action-oriented
- identification of worthwhile community projects to motivate students. This included projects with a high profile and to where they can bring family and friends (and potential employers) to show their achievements, to develop a portfolio of completed work.

One project was the Rainbow Gateway project, where teams from the Queensland Department of Housing and Public Works, TAFE Queensland North (Vaughan Wakefield) and an independent ATSI construction company Myuma Pty Ltd, collaborated to find new ways of: delivering training; creating pathways from



training to long-term employment: and build sustainable housing for ATSI youth. The project is an integrated learning, training, employment and housing solution for ATSI youth in remote Queensland areas. Project members support and fund TAFE Queensland North learners who build housing for ATSI youth as part of their curriculum. A separate project was the building of the Mount Isa Fish Stocking Group's Hatchery. VET in Schools learners built and lined internal offices, a mezzanine floor and display units for the hatchery.

In teams learners plan and organise the construction work, select and obtain equipment and materials and allocate timelines and coordinate timetables for each stage of construction. As mentor and coach, at the end of each week Vaughan Wakefield encourages his teams to 'stand back and look at what they've created'. Through these projects learners develop enterprise skills such as teamwork and collaboration, financial literacy, communication, critical thinking and problem solving. Vaughan Wakefield observed that for learners and employers, self-paced training delivery enables experienced learners to complete more quickly, and inexperienced learners may receive more intense 'one-on-one' support. This approach also resolved employer staffing problems because learners could work in their own time at their own pace.

For his work Vaughan Wakefield was recognised as the TAFE Queensland 'Great Achiever Award - Educator of the Year' for 2016; the project was a finalist in the 'Fostering Innovation' category in the Premier's Awards for Excellence in Public Service Delivery; a female student was nominated for the 2015 Construction Skills Queensland 'Student of the Year' Award, and was also a 'Student of the Year' nominee in the Queensland Training Awards.

Most importantly, Vaughan Wakefield observed that a high number of learners continue training after course completion because they are motivated by "doing something for community" and by being able to show parents and friends what they've built. He observed they develop pride and confidence in their abilities from seeing the buildings they created.

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## Acknowledgement

### **Vaughan Wakefield**

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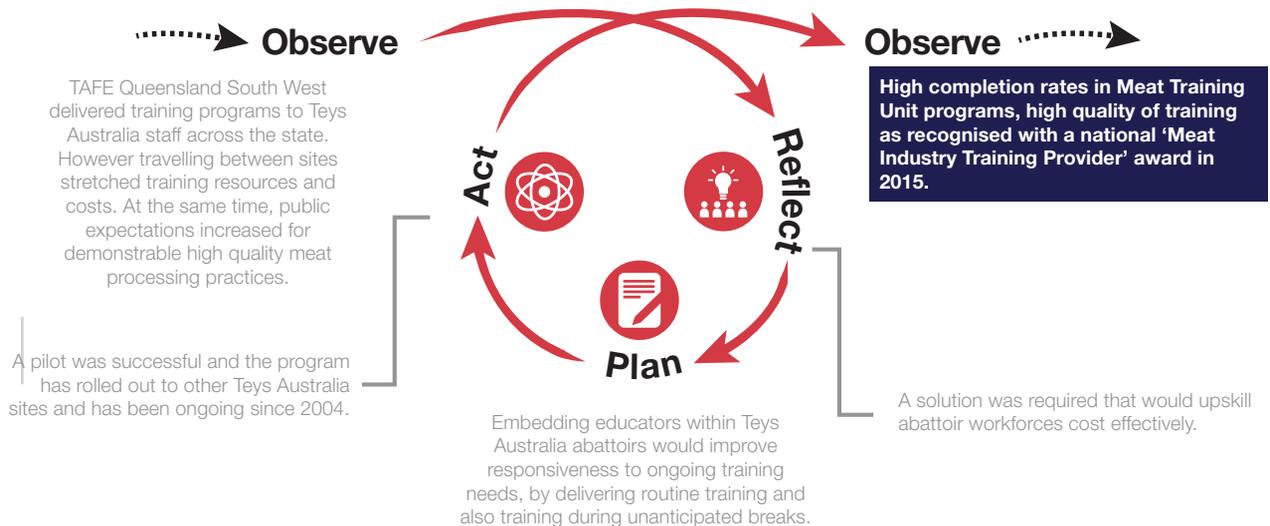


# Sustainable training in meat processing

*Embedding training in a workplace*

## Overview

TAFE Queensland South West Meat Training Unit educators are embedded in Teys Australia abattoirs across Queensland. Within the abattoirs, educators train Teys Australia staff in qualifications from a Certificate II entry level to the Diploma of Meat Processing. This close alignment of educators and practitioners in the workplace achieves high standards of quality practices, high completion rates and has enabled Teys Australia to offer clear career pathways for their staff.



## CONTEXT

The TAFE Queensland South West Meat Training Unit formed in 2000 with an initial focus on delivering training to develop supply chain skills in the game meat industry. All educators are experienced in the meat industry and are highly regarded by industry and regulators, for example, the Meat Industry Training Advisory Council and Safe Food Production Qld.

## Problem

In the initial stages of involvement with Teys Australia, the TAFE Queensland South West Meat Training Unit (from their base in Toowoomba) delivered training to all company plants from Beenleigh in South-East Queensland to Biloela and Rockhampton in central Queensland and Innisfail in far north Queensland. Travelling between sites stretched training resources and costs. Separately, animal welfare publicity and strengthened meat export regulations and standards have raised public expectations for demonstrable high quality meat processing practices.



“TAFE Queensland South West quality of training service is second to none. Their very high levels of training and assessment competence, mixed with an ability to respond quickly to customer needs has resulted in a business relationship that is so much more than a commercial client / provider arrangement.”

Group Training Manager,  
Tey Australia



## Approach

Both Teys Australia and TAFE Queensland South West were looking for a long term sustainable approach to upskill the abattoir workforce - one that minimised travel. A proposed solution was to embed educators within Teys Australia abattoirs, because it would improve responsiveness to ongoing training needs and enable the workforce to effectively use their time during plant shutdowns and machinery breakdowns. Educators could train staff routinely and also during down times. Teys Australia agreed to sufficient numbers of trainees to make the program viable, and to release them from production work routinely for training in a specially provided office space (for learning theory). The educators participated in the same induction to abattoir processes and policies that Teys Australia staff receive.

The partnership began in 2004 with a pilot at Teys Australia's Beenleigh plant, followed by Rockhampton in 2007. The Biloela plant is serviced by TAFE Queensland educators from Rockhampton.

## Innovation

The team applied a highly proactive and adaptive approach to identify training methods that were most effective in meeting Teys Australia needs. There are high completion rates in programs the Meat Training Unit deliver, with over 250 completions in Certificate II entry level qualification since the partnership began. In the four years to 2016 over 120 trainees at Teys Australia have been trained in qualifications from the national meat processing training package (MTM11). Furthermore, twenty workers from Teys Australia plants nationwide have completed the Diploma of Meat Processing qualification and have progressed into management roles.



The TAFE Queensland South West Meat Training Unit won the prestigious National Meat Industry Training Advisory Council 'Meat Industry Training Provider' award in 2015 with Teys Australia's support via a letter of commendation that included:

"Our business always looks to calculate the level of return on training investment. Such calculations have identified many employees that have been trained by TAFE Queensland South West have been successful in gaining higher level positions in the organisation."

- Group Training Manager, Teys Australia

The Meat Training Unit has benefited from this partnership in many ways: educators are 'industry current' and they share mutual professional respect with Teys Australia employees. The educators embedded in Teys Australia abattoirs are now considered to be team members rather than a training partnership.

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## Acknowledgements

### **Glen Eckhardt**

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### **Debbie Jackson**

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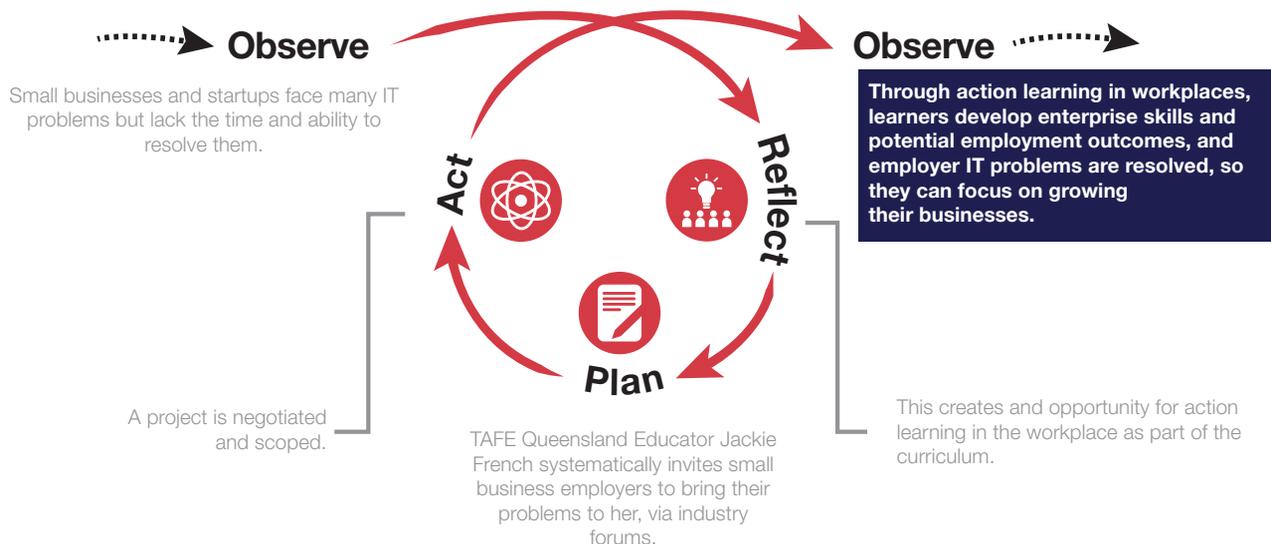


# Integrated learning in digital design for web, ICT and networking

*Problem solving for employers*

## Overview

Workplace-based learning is an integral element of TAFE Queensland Brisbane Digital Design courses, such as the Diplomas of Web ICT and Networking. Learners have built websites and customer relationship management systems for local employers and community groups as part of their curriculum. The teaching aims to link learners with events and external agencies who act as clients. Jackie French and Robert MacKenzie are Educational Team Managers at TAFE Queensland Brisbane who are highly experienced in the process of work integrated learning. This study provides an example of their approach.



## CONTEXT

The team managers participate actively in industry events, not only in their field of expertise but also for small business and startups. They use various approaches to identify potential employers, for example, at an industry event for startups Jackie stood up and addressed the seventy attendees to promote awareness that there is a body of learners willing to work on projects as part of their curriculum. Approaches from industry are then filtered by a needs analysis that uses criteria to identify whether the employer has a defined project with a clear need and is willing to host and support learners. Upon reaching agreement of a project with employers, they arrange for learners to be briefed on the project proposal – most often by a representative of the employer. This is most often at the employer's premises, which necessitates briefing the learners beforehand on appropriate attire, professional workplace communication and being on time – or general enterprise skills. Upon receipt of the brief, learners work either in teams or individually to respond to the client (for example to design, build and promote a digital product), by creating a project plan and delivering it.

Generally learners work from TAFE Queensland Brisbane premises, and then completed deliverables are presented to the client employer, who selects one (the winner) for implementation in the workplace. Generally a workplace project may require 100 hours of effort or a quarter of a semester workload, which is equivalent to one competency. Sometimes there are follow-on projects, and sometimes the employer is referred to another School within TAFE Queensland Brisbane to progress their project.

Jackie French noted "a lot of what we do is problem solving." The projects add value to local employers, but more importantly, learners learn valuable enterprise skills of teamwork and collaboration, professional communication and more.



**Following are two  
2015 examples:**

**Problem**

A local social enterprise, Icon Community, which is staffed by volunteers, had been struggling to gather information and monitor customers and outreach programs, resulting in duplication of effort and time inefficiencies. They needed a way of tracking events, sponsors and schools, and so proposed to use a database. Because they are staffed by volunteers, they had built a website but didn't have the capacity to manage the content behind it.

**Approach**

To resolve this, learners created and tailored an easy-to-use customer relationship management solution for them. The project involved twenty learners and an educator from the IT Networking and Web courses.

**Innovation**

Icon Community was able to improve its customer relationship management, including efficiency improvements and removal of duplication of effort.



## Problem

Another small local employer - an Internet Service Provider - was having difficulty recruiting staff. The employer had tried advertising via a major Australian website and was inundated with hundreds of applications that took too long to filter and distracted them from growing the business.

## Approach

The Educators negotiated for two TAFE Queensland Brisbane learners to undertake a quasi-internship project with the employer.

## Innovation

The employer then offered them jobs upon graduation, and subsequently created two more internships, seeing it as a form of 'giving back' to the community by providing a workplace and mentoring through which interns can develop their skills.

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## Acknowledgements

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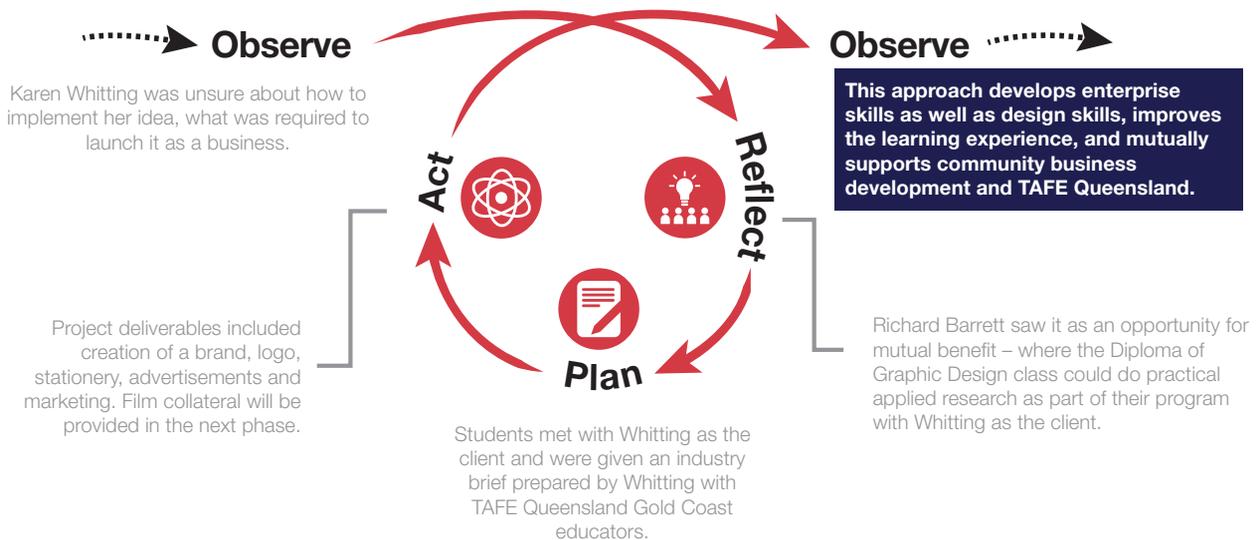


# The role of TAFE Queensland Gold Coast in nurturing startups and small businesses

## *VehiclesXChanges: peer-to-peer car sharing - from idea to launch*

### Overview

Karen Whitting had an idea for an online car-swapping marketplace but was unsure about how to implement it. She rang Richard Barrett, Creative Industries Faculty Director at TAFE Queensland Gold Coast and he suggested to her that learners from the Diploma of Graphic Design may be able to help her as part of their studies. Creative Industries educator Ian Thompson then briefed learners on the project and they were asked to research and prepare ideas for a promotion campaign including branding, advertising and marketing. Learners developed and pitched ideas to Karen Whitting and one was chosen for use. Phase Two of the project has begun, with Film and TV learners currently preparing two films for VehiclesXChanges. TAFE Queensland Gold Coast supports entrepreneurs on their business creation journey.



## CONTEXT

Peer-to-peer businesses that facilitate sharing are a future growth industry, of which the car sharing segment is forecast to experience 23 per cent compound annual growth rates to 2025 (PwC 2014). Many startups are based on a model of collaborative consumption of high-cost resources. High profile entities such as AirBnB, Neighborgoods, SnapGoods and car sharing sites such as Turo (formerly Relayrides), Getaround (peer-to-peer car sharing), Uber and Lyft, GoGet and ZipCar all require payments for both membership and hire. Ride sharing services such as Coseats.com tend to require payment per trip.

VehicleXChanges.com is a Gold Coast based digital start-up. It is an online membership service where members pay an annual fee that allows them to communicate with others in the VehicleXChanges community to arrange free vehicle exchanges. Vehicle exchanges are not limited to cars and may include watercraft, recreation vehicles, caravans, trailers, motor bikes and potentially more. VehicleXChanges aims to reduce the cost of travel, stretch the budget further and offer a free alternative to vehicle hire for members. Two points of difference from other car sharing schemes are that it is a one stop shop for all vehicle types on land and sea, not just cars. Secondly upon payment of an annual membership fee it is free to exchange vehicles as many times per year as needed. There is no ongoing payment of rental fees as happens in other car sharing schemes.

Over the decade from 2001 to 2011, small to medium sized businesses (SMEs) aged less than five years employed only around fifteen per cent of the Australian workforce, but made the highest contribution (forty per cent) to net job creation in Australia. However only nine per cent of Australian SMEs brought a new idea to market in 2012-13, compared to nineteen per cent in the top five OECD countries. The data suggests that SMEs need help bringing ideas to market. SMEs tend to work with TAFE providers rather than Universities possibly because they are smaller, more agile and responsive, and TAFE Queensland is in continual partnership with local employers. Eight per cent of Australia's startups are located in the Gold Coast region (IT Forum 2015).

## Problem

Karen Whitting was unsure about how to implement her idea, what was required to launch it as a business.



“I was really impressed with the professionalism of the students and the array of great designs to choose from. TAFE has helped me develop the VehicleXChanges brand and I look forward to working with the TAFE team again on future projects.”

Karen Whitting,  
Founder, VehiclesXChanges



## Approach

Karen Whitting reached out to Richard Barrett, Director of the Creative Industries Faculty at TAFE Queensland Gold Coast for help. He saw it as an opportunity for mutual benefit – where the Diploma of Graphic Design class could do practical applied research as part of their program with Karen Whitting as the client.

This became a project as part of the assessment for the 'Create Visual Design Concepts' unit. Students met with Whitting as the client and were given an industry brief prepared by Whitting with TAFE Queensland Gold Coast educators. They were asked to research, experiment, test and imagine how to build well-grounded and effective designs, using concept thinking methods, design principles and investigative skills. Learners documented their efforts and ideas into a reflective learning journal and discussed them with peers. From this process each learner prepared three layout concepts for a logo and artwork for stationery and advertisements for web and print and pitched to the class, as well as a 'Creative Director'/educator and the client. From the pitches, Karen Whitting nominated five concepts for further development, after which she selected the one final concept for use by VehiclesXchanges. She noted:

"I was really impressed with the professionalism of the students and the array of great designs to choose from. TAFE has helped me develop the VehicleXChanges brand and I look forward to working with the TAFE team again on future projects."

- Karen Whitting, Founder, VehiclesXChanges

TAFE Queensland Gold Coast educators and learners then planned a second phase of the project which involved Film and TV students, who were briefed by the client to create two films - a thirty second introduction and a 'how it works' tutorial. The films selected by Whitting will form part of the VehiclesXChange website and YouTube channel (amongst other uses).



## Innovation

The Coomera campus of TAFE Queensland Gold Coast has leading edge facilities for design and multimedia, and learners use them on real client projects. This approach improves the learner experience and strengthens networks within the local community. Diploma learners develop enterprise skills in addition to design skills, which is important because upon graduation they themselves may establish their own business.

The work of TAFE Queensland Gold Coast Creative Industries faculty and learners provided impetus and support for Karen Whitting on her journey from idea to execution of a new business. Project deliverables included creation of a brand, logo, stationery, advertisements and marketing. Film collateral will be provided in the next phase.

This is just one example of a long established, regular practice within the Creative Industries faculty, with most courses containing a client project. The role of TAFE Queensland in supporting startups is perhaps unrecognised but occurs regularly when educators and startups collaborate with students to provide services that resolve various challenges faced by small businesses. The nature of these projects are that they rapidly deliver tangible outcomes to clients.

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## Acknowledgements

### Ian Thompson

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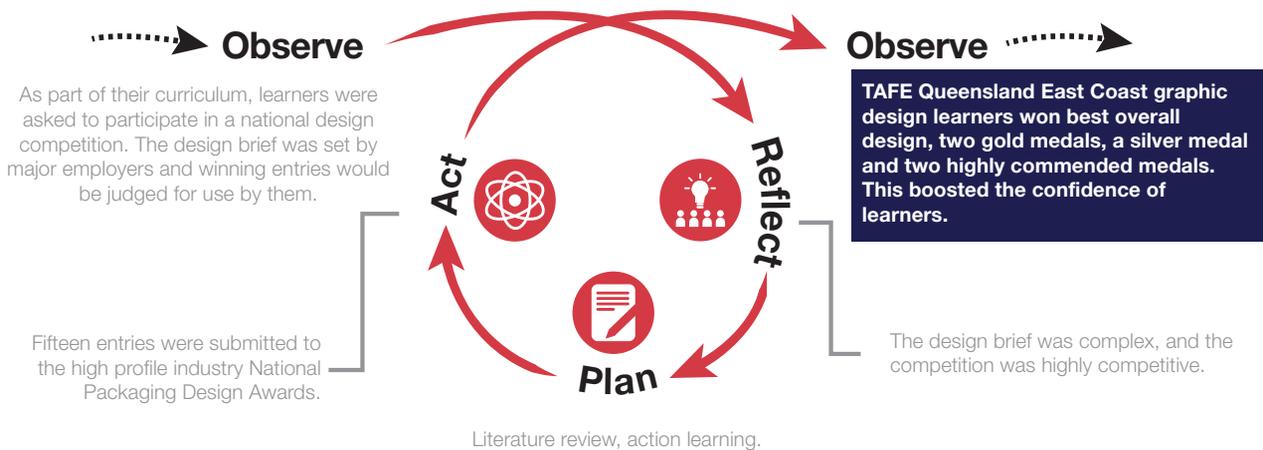


# Project based learning to develop packaging design skills

*Mentoring award-winning designs*

## Overview

Lyndal Chase teaches the Diploma of Graphic Design at TAFE Queensland East Coast Nambour campus. The second semester of the Diploma is focussed on employer projects after a first semester learning theory. For their 2015 industry project her learner cohort entered the National Packaging Design Awards and swept the pool of gold, silver and 'highly commended' medals.



## CONTEXT

Project based learning is a core element of the Diploma of Graphic Design that Lyndal Chase teaches. Her team leader at the Centre of Creative and Digital, Gary Chapman, says design briefs are “representative of industry, so the process replicates the real world, making it relevant for our students who are better prepared to enter the workforce after they graduate” (in *StudyGraphicDesign 2015*).

In 2015 she arranged for her learners in the Diploma of Graphic Design to submit designs to the Australian National Packaging Design Awards of the Packaging Council of Australia, an industry body that represents companies across the packaging supply chain. The Southern Cross Prize is for a category within the Awards for national tertiary students and in 2015, 400 submissions were received from across Australia including from high profile design schools at Monash University, RMIT, Swinburne University, Bond University, University of South Australia, La Trobe University and University of Sunshine Coast.



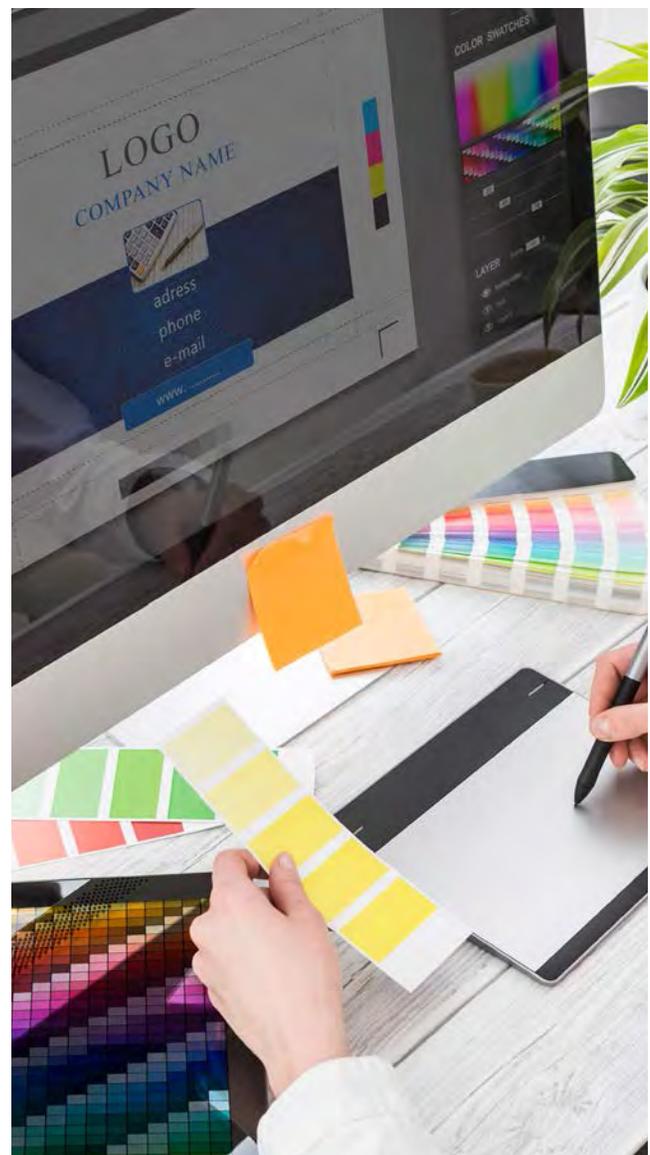
“Each of their entries demonstrated an exceptional level of detail in their research, which resulted in clever and innovative solutions” to the complex packaging and design requirements,”

Jennifer Salem,  
Packaging Council of Australia Awards Manager  
(*StudyGraphicDesign 2015: para.12*).

## Problem

To compete, learners had to respond to a complex request by the National Packaging Association for submissions requiring them to:

- interpret the brief for a major business
- meet mandatory requirements
- source materials
- include a technical brief to industry standard on the submission
- include testimonials of the rationale for the design.



## Approach

Learners picked their own brief from six the competition offered and they researched packaging options, designed and mocked up products, obtained print quotes and prepared a 'rationale' to substantiate their submission. Lyndal provided mentorship on project management, including breaking down the effort into actionable tasks. Meeting the brief was 'exhaustive' and took three months of effort to create innovative solutions. Entries were judged over three days by blind peer review from Australian industry experts nominated by the Packaging Council of Australia. They judged on various criteria including whether the design is 'industry ready'.

Preparing the competition submissions was a major individual effort on behalf of the learners, with Lyndal contextualising their projects within the curriculum over three months. Responsibilities and deadline pressure were similar to a major industry creative campaign. The learners were entirely responsible for their entries, and Lyndal suggests that having their name on their entries motivated them. The industry project approach supports development of 'real life' enterprise and technical skills with real employers. It exemplifies how TAFE Queensland East Coast has achieved a strong reputation for exceptional graduates within the design industry and employers.



## Innovation

TAFE Queensland East Coast submitted fifteen entries and from a pool of 400 entries nationwide, TAFE Queensland East Coast results included:

- two of the six gold medals, namely:
  - > James Innis for his brief for a John West packaging design for children;
  - > Sarah Radge for a brief and design for a Birds Eye “Family of Packaging” range
- a silver award was also awarded to James for the rationale explaining his design for John West packaging design
- two highly commended:
  - > Josh Scott for his design on packaging for today’s consumer
  - > Alita Cobb for addressing a brief on Spice Up: Dry Herbs and Spice
- James’ entry was awarded ‘best overall’ design, of the 400 nationwide entries from tertiary institutions.

Specific feedback on the winning entries included: the concepts were well thought out; exceeded all requirements of the brief; stood out; reflected sound research in understanding the market; an excellent solution to a challenging brief; ticked every box this brief asked; excellent and effective imagery; and meets industry standard (*StudyGraphicDesign 2015*).

As at May 2016, James (who is still a teenager) has graduated and is freelancing and Sarah is employed by the company whose brief she responded to (Birdseye). Lyndal intends to enter the same competition again with her learners, and is considering undertaking further higher education studies as part of her professional development and industry currency of skills.

Lyndal Chase believes participating in the awards was an amazing experience for the learners who were flown to the Melbourne ceremony by prize sponsors, and gained an opportunity to network with industry. As part of their prize they spent an afternoon with eight brand managers discussing product strategy. This activity further developed their enterprise skills and confidence. As reported in local media (*StudyGraphicDesign 2015; My Sunshine Coast 2015*) the awards manager for the Packaging Council of Australia, Jennifer Salem, said both learners – James and Sarah - had done an excellent job in meeting the requirements of the industry briefs: “Each of their entries demonstrated an exceptional level of detail in their research, which resulted in clever and innovative solutions” to the complex packaging and design requirements.

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## Acknowledgement

### Lyndal Chase

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APPLIED RESEARCH  
EXEMPLARS MARKS  
A STARTING POINT IN  
SHARING THE STORY OF  
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– Dr Christina Hong, 2016



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