







Improving completion rates amongst apprentices in regional and remote Victoria

Paul Boys

2014 Higher Education and Skills Group Overseas Fellowship Report

An ISS Institute Fellowship sponsored by

Higher Education and Skills Group



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i. EXECUTIVE SUMMARY

Having worked within the Vocational Education and Training (VET) sector for more than 15 years, the Fellow has witnessed a steady fall in retention and completion rates for apprentices. This is supported by evidence collated through the National Centre for Vocational Education Research (NCVER) The Fellowship, allowed the Fellow, Paul Boys, to gain an international perspective into how modern-day apprenticeships are managed to improve retention and completion rates across numerous trade areas, with a primary focus on Commercial Cookery.

The Fellowship enabled travel to Canada and a focus on the Canadian Vocational Training system whilst working with key stakeholders across the provinces of British Columbia and Alberta. The experience was a fantastic opportunity to learn from innovative practitioners within the Canadian VET sector and to further develop close relationships to continue working together on projects into the future. The Fellow visited a number of organisations, both private and public, and found a great diversity of experience and knowledge that has helped to re-frame his thinking around the challenges faced by governments and industry to improve retention rates among apprentices.

Boys was searching for international best practice models for managing and supporting apprentices through the use of innovative and contemporary program design. Canada was able to demonstrate the value of close collaboration as essential to successful outcomes for apprentices through strong mentoring and workplace support for each student.

The Fellowship highlighted the need for Australian VET practitioners to work together and to further engage with government and industry to maximise outcomes for all persons engaged in facilitation of modern-day apprenticeships. The major findings show that from an international perspective, the Australian Apprenticeship sector is robust and delivers quality training but it needs to re-evaluate the way in which courses are facilitated and managed to maintain and improve retention rates into the next 10 years. Governments also need to ensure that they support and promote apprenticeships as an integral component of future policy to maintain Australia's high standards of workplace skill and practice.

The areas targeted during the fellowship research include the following:

- Industry sectors and occupations that rely on modern apprenticeships for industry practitioners
- Identification and validation of skills enhancements required to maintain currency and integrity of apprentice training.
- Tangible benefits for industry, employers and apprentices through the implementation of stronger apprenticeship retention strategies
- How the skills can be shared with others in Australia.

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ii. ABBREVIATIONS/ACRONYMS

ACEit Vocational Training in Schools

BC British Columbia

BC Campus: British Columbia Campus

BCSC Bass Coast Shire Council

CAD Canadian Dollar

DET Department of Education and Training, Victorian Government

LMS Learning Management System

RCA Restaurant and Catering Association

RPL Recognition of Prior Learning

RTO Registered Training Organisation

SAIT Southern Alberta Institute of Technology

SSA Service Skills Australia

RTO Registered training Organisation

TAFE Technical and Further Education

VC Virtual Campus

VCC Vancouver Convention Centre

VET Vocational Education and Training

VETDC Vocational Education and Training Development Centre

VETIS Vocational Education and Training in Schools

BC Campus

Innovation arm of the British Columbia Vocational Training System.

Camosun College

Vocational Training College in Victoria, British Columbia Province.

Camtasia

Video Editing Software that enables you to edit your Videos, record your screen, as well as editing content of recording.

D₂L

A software development corporation, known until 2014 as Desire2Learn,is an educational technology company with corporate headquarters in Kitchener, Ontario. It is known for its Brightspace Learning Management System (LMS).

E-Learning

The delivery of a learning, training or education program by electronic means, using a computer or other electronic device (e.g. a mobile phone).

HR2Go

Tourism industry representation board for British Columbia.

Red Seal

The Red Seal program allows qualified tradespeople to practice their trade anywhere in Canada where the trade is designated without having to write further examinations. This is equivalent to a Qualified Tradesperson in Australia.

Shift IQ

Is an independent organization that develops user-friendly dashboards to support Learning Management Systems

Skilled Trades Innovation Forum

Conference to share new ideas and best practice to further strengthen and innovate the training system in British Columbia.

Southern Alberta Institute of Technology (SAIT)

Vocational Training College in Calgary, Alberta Province.

Totara

The government supported Learning Management System (LMS) used amongst Vocational Training providers in New Zealand

1. ACKNOWLEDGEMENTS

Paul Boys thanks the following individuals and organisations that have generously given of their time and their expertise to assist, advise and guide him through this Fellowship program.

Awarding Body – International Specialised Skills Institute (ISS Institute)

The International Specialised Skills Institute (ISS Institute) is an independent, national organisation. In 2015 it is celebrating twenty-five (25) years working with Australian governments, industry education institutions and individuals to enable them to gain enhanced skills, knowledge and experience in traditional trades, professions and leading edge technologies.

At the heart of the ISS Institute are our individual Fellows. Under the Overseas Applied Research Fellowship Program the Fellows travel overseas. Upon their return, they are required to pass on what they have learnt by:

- Preparing a detailed report for distribution to government departments, industry and educational institutions
- Recommending improvements to accredited educational courses
- Delivering training activities including workshops, conferences and forums.

Over 300 Australians have received Fellowships, across many industry sectors. In addition, recognised experts from overseas conduct training activities and events. To date, 25 leaders in their field have shared their expertise in Australia.

According to Skills Australia's 'Australian Workforce Futures: A National Workforce Development Strategy 2010'.

Australia requires a highly skilled population to maintain and improve our economic position in the face of increasing global competition, and to have the skills to adapt to the introduction of new technology and rapid change. International and Australian research indicates we need a deeper level of skills than currently exists in the Australian labour market to lift productivity. We need a workforce in which more people have skills and knowledge, but also multiple and higher level skills and qualifications. Deepening skills and knowledge across all occupations is crucial to achieving long-term productivity growth. It also reflects the recent trend for jobs to become more complex and the consequent increased demand for higher-level skills. This trend is projected to continue regardless of whether we experience strong or weak economic growth in the future. Future environmental challenges will also create demand for more sustainability related skills and knowledge across a range of industries and occupations.

In this context, the ISS Institute works with our Fellows, industry and government to identify specific skills and knowledge in Australia that require enhancing, where accredited courses are not available through Australian higher education institutions or other Registered Training Organisations. The Fellows' overseas experience sees them broadening and deepening their own professional knowledge, which they then share with their peers, industry and government upon their return. This is the focus of the ISS Institute's work.

For further information on our Fellows and our work see http://www.issinstitute.org.au.

Paul Boys also thanks the CEO (Bella Irlicht AO) and staff (Ken Greenhill and Paul Sumner) of ISS Institute for their assistance in planning and development of the Fellowship and completion of this report.

Governance and Management:

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1. ACKNOWLEDGEMENTS

Fellowship Sponsor - The Higher Education and Skills Group

The Victorian Government, through the Higher Education and Skills Group (HESG), Department of Education and Training, Victorian Government, is responsible for the administration and coordination of programs for the provision of training and further education in the VET sector, adult education and employment services in Victoria, and is a valued sponsor of the ISS Institute. Paul Boys thanks them for providing funding for this Fellowship.

Employer Support

Chisholm Institute has generously supported this Fellowship by providing time to travel and undertake the Fellowship as well as supporting the Fellow with additional mentoring as required. The Fellow particularly acknowledges:

- Maria Peters, CEO, Chisholm Institute
- · Leanne Jenkins, Director, Chisholm Institute
- · Maria North, Department Manager, Hospitality, Tourism and Bass Coast, Chisholm Institute
- Kon Dimitrakopolous, Commercial Cookery Trainer, Hospitality, Tourism and Bass Coast, Chisholm Institute.

Industry

- Restaurant, Accommodation and Café Industry
- Service Skills Australia (SSA).

Professional Associations

The following organisations and industry groups should benefit from the findings of this report:

- · Restaurant and Catering Association (RCA)
- Higher Education and Skills Group (HESG)
- Department of Education and Early Childhood Development (DEECD)
- Vocational Education and Training Development Centre (VETDC)
- Victorian Tourism and Hospitality Educators Network (VTHEN)
- Service Skills Australia (SSA).

Education and Training

The education and training organisations that will benefit from the Fellowship include:

- Victorian TAFE and RTO Institutions
- · Learn Local Colleges
- Adult Community and Further Education Colleges (ACFE)
- Vocational Education and Training in Schools (VETiS) coordinators
- The Vocational Education and Training Development Centre (VETDC)
- Apprenticeship networks
- Group Training Organisations

- Apprenticeship Coordinators from the TAFE and RTO sector
- Commercial Cookery Trainers across the whole VET sector
- E-learning Managers and Coordinators.

Community

Community organisations who have supported and whose networks will benefit from the research:

- South Gippsland and Bass Coast Local Learning and Employment Network (SGBCLLEN)
- Bass Coast Shire Council (BCSC)
- South Gippsland Shire Council (SGSC)
- · Learn Locals.

Mentors

- Leanne Jenkins, Director, Chisholm Institute (Workplace Mentor)
- Kon Dimitrakopolous, Chef instructor, Chisholm Institute (Industry Mentor)
- Maddy Harford, Director, Maddy Harford and Associates (Report Writing Mentor).

2. ABOUT THE FELLOW

Name

Paul Boys

Current employment

Senior Educator, Hospitality, Tourism and Bass Coast, Chisholm Institute

Qualifications

- · Masters of Business (Hospitality, Tourism and Education), Victoria University
- · Masters of Professional Education and Training, Deakin University
- Bachelor of Social Sciences (Honours), RMIT University
- Diploma of Vocational Education and Training Practice, Chisholm Institute
- Diploma of Hospitality Management, Holmes Institute
- · Certificate IV in Training and Assessment

Brief Biography

Paul Boys is a professional educator within the VET sector who is responsible for the coordination and management of a regional TAFE campus for Chisholm Institute. He has over 20 years of experience in the Hospitality, Tourism, Events and Service industries as well as 14 years of experience teaching across numerous training packages in a variety of educational settings. In his current role, Boys is responsible for the Management of the Bass Coast Campus, located in the Regional centre of Wonthaggi and servicing a population of more than 35,000 residents. The Bass Coast Campus facilitates over 20 qualifications across six training packages.

Along with coordination of the Campus, Boys also teaches a range of programs from Certificate III to Graduate Certificate level. His teaching and management experiences have allowed him to develop a sound understanding and appreciation of the challenges that are faced by apprentices in regional communities across Victoria. Paul is also the e-learning support leader within his teaching department and he has worked with staff to develop a range of programs that are now facilitated using numerous blended learning pedagogies.

Above all, Boys is passionate about developing his skills and understanding of how e-learning and e-assessment practices can be further researched to deliver a better quality training experience for apprentices in regional and remote Victoria. Boys believes that access and equity in education is a critical element to the overall success of apprenticeships into the future.

3. AIMS OF THE FELLOWSHIP PROGRAM

The aims of the Fellowship program were as follows:

- To investigate international models for the sign-up, management and assessment of apprentices
- To develop a comparative analysis of strengths, weaknesses, opportunities and threats (SWOT) that
 exist between the Victorian and International apprenticeship systems
- To investigate how e-learning and video-conferencing technologies can be better utilised in the
 engagement and assessment of apprentice's in regional and remote communities, to further
 support the implementation of Technology Enabled Learning Centres (TELCs) across Gippsland by
 increasing their reach and access
- To investigate practices that are implemented internationally to help to reduce the skills deficiency and shortage that is being experience in the restaurant and catering industry
- To develop a framework for a defined assessment strategy that will allow apprentice's to be assessed in their work environment using e-learning technologies
- Research how international VET systems organise, support and engage apprentices to facilitate quality outcomes for employers, apprentices and RTOs
- Document best practice in respect of e-learning and e-assessment strategies to support apprentices in regional and remote areas.

4. THE AUSTRALIAN CONTEXT

The Accommodation and Food Services industry is the seventh largest employing industry in Australia, employing 796,500 people (or 6.9 per cent of the total workforce) as at August 2013 (SKA, 2014). The largest contributor to employment in the sector is the Cafés, Restaurants and Takeaway Food Services sector, which accounts for two thirds (67.1 per cent) of industry employment. The Accommodation sector accounts for 13.5 per cent, followed by Pubs, Taverns and Bars (12.7 per cent) and Clubs (Hospitality) (6.7 per cent). Within each of these sectors there are more 70,000 trade qualified chefs employed in Australia at the end of 2013 (SKA, 2014). Although the number of person's employed as Chefs is significant, Chef numbers and industry demand is forecast to increase in order to accommodate projected population and in-bound tourist numbers forecasts into the next decade (Department of Employment, 2014). With completion and retention rates falling within the sector over the past decade (Hospitality Magazine, 2012), the industry faces a significant challenge to meet these forecast chef numbers.

The Fellowship provided Boys with an opportunity to develop a comparative analysis of strengths, weaknesses, opportunities and threats (SWOT) that exist between the Victorian and International apprenticeship systems. Specifically, it allowed him to examine the following areas of knowledge and practical application within recognised International Best Practise organisations.

Shortages within the Commercial Cookery/Chef sectors have been of concern within the Australian labour market for more than 10 years, with there being a decrease in the uptake and completion of commercial cookery apprentices that leaves the career on the list of the hardest to fill positions within the Australian Labour Market (Department of Employment, 2014 and SKA, 2014). This is supported by evidence presented by the Restaurant and Catering Association of Australia (2013) who have responded with a series of new initiatives, including formal mentoring of apprentices to try and redress this concerning statistic. Other programs that have been initiated over the past decade have included increased incentives to support apprentices in the first years of study, greater engagement with employers and group training organisation although these programs have had limited impact on improving retention and completion rates (Hospitality Magazine, 2013). The latest statistics, as presented by Department of Employment (2014), emphasise that employers in the Commercial Cookery sector continued to experience difficulty recruiting in 2012-13. Employers further noted that wastage (people leaving the occupation for which they trained) was a major factor contributing to the persistent shortages of Chefs, which were claimed by SKA (2014) to be in part, driven by relatively low remuneration, undesirable working hours and difficult working conditions.

Australian Bureau of Statistics (ABS, 2013) labour mobility data show that labour turnover for the food trades is higher than across all occupations. The research further claimed that the vast majority of employers surveyed were actively seeking qualified Chefs (employers value traditional apprenticeship training) with relevant experience and skills. The skills shortage has seen a significant number of employers look to employ cooks in place of Chefs to avert the shortage even though their training and experience is considerably less than a trade qualified Chef. Research by Service Skills Australia (2014) recognises that there will continue to be shortages of trade qualified chefs and that these shortages were likely to persist, particularly for highly skilled and experienced staff, as the factors which contribute to low recruitment and retention are likely to continue.

Completion rates amongst Commercial Cookery apprentices are at their lowest level with statistics showing completion rates in 2012 dropping to just 37 per cent when compared to 54 per cent across all other apprentice qualifications in Australia (Hospitality Magazine, 2012). These statistics and changes in labour market activities and training for apprentices demonstrate that there needs to be further research made into how we can improve outcomes and deliver a more robust system that caters to the needs of employers, Registered Training Organisations (RTOs) and apprentices. The Australian experience faces further challenges into the future in retaining apprentices which highlights the need to re-frame and develop a series of recommendations that can promote debate around this important

4. THE AUSTRALIAN CONTEXT

issue. The National Centre for Vocational Education and Research (NCVER) has published data from June 2014 that states "the number of apprentices and trainees in-training as at 30 June 2014 was 351,000, a decrease of 14.2% from 30 June 2013" (2014, p. 3). Students engaged in trades training has seen a specific decline from a peak of 217,000 in 2012 to only 192,000 in 2014 (NCVER, 2014 p.4). This figure demonstrates that there are a series of challenges that the Vocational Education and training (VET) sectors face to improve the number of apprentices/trainees that are engaged in formal training and whether this fall can be re-dressed through the use of e-learning and e-assessment.

E-learning has been a key construct within the VET sector for more than 20 years and is defined by the University of Western Australia (2014, Online) as "a sub-set of flexible teaching and learning that seeks to provide greater access to learning for all students". The proliferation of e-learning has resulted in the re-framing of how students, teachers and employers engage in education with a primary goal of expanding participation and improving access to persons from all backgrounds and locations (Dow, Allan and Mitchell, 2011). The need for trainers and assessors to develop and enhance their practice to incorporate knowledge and applications of these technologies is a key element in the retention and engagement of young learners in the apprentice sector. Through professional development, contemporary trainers can be empowered with a new set of skills and practices to meet the future challenges within the VET sector. These new technologies are able to co-exist with the implementation of Technology Enabled Learning Centres (TELCs) throughout the Gippsland region of Victoria in 2012. The TELCs were a direct response from the Victorian Government to improve access to Vocational Education and Training (VET), "By ensuring our students have access to these high-tech study spaces, we can broaden the depth and breadth of courses in Gippsland, ensuring students can access courses that meet local demand and respond to industry needs" (Hall, 2012).

The roll-out of the TELC program has had varying impacts on the application of e-learning and e-assessment for apprentices in regional Victoria and the emergence of these technologies have created a new paradigm that needs to be applied to the management of apprentice chefs in the region. This aligns with the current projected skills shortages in the Commercial Cookery and VET training sectors as per the SKA skills shortages projected in early 2014. Commercial Cookery apprentices within the regional Victoria continue to face numerous challenges to access quality training, including location, affordability and travel (Dow, Allan and Mitchell, 2011). These challenges are coupled with the falling retention rates amongst commercial cookery apprentices and the skills deficiency is then evident in both training and industry sectors and they must be addressed to endure a viable and robust sector. Although the Australian apprenticeship sector is mature and well developed, it continues to face challenges that will require continuous improvement to ensure that Australian students are internationally renowned for their skills and training (Smith, Brennan and Kemmis, 2013).

The SWOT analysis of the Australian Apprenticeship Sector, as shown in Table 1, demonstrates that there are a number of positive aspects to the sector whilst there is a need to reflect and look to address some looming threats that may impact on the future of the apprenticeship sector. One of the greatest challenges as reinforced by Smith, Brennan and Kemmis (2013) is the need to improve retention rates amongst apprentices, with Australia currently completing around 50 per cent of apprentices compared to more than 80 per cent in Egypt, France and Germany. This number is a clear indicator that Government and policy makers need to re-frame the debate around apprenticeships and look to international modelling to investigate how this issue can be better addressed.

Other significant issues include the need to better engage with e-learning and e-assessment technologies to provide a diversity of opportunities to all apprentices, therefore removing the barriers to education that may be traditionally faced in regional and remote areas. This component is also strongly linked to the development of the TELC framework in Gippsland (Hall, 2012), which has a defined focus to improve access to education for all persons in the region through the use of e-learning technologies. The need to maintain and improve the sector is a clear goal of the Australian federal government who

are currently delivering a series of reforms to address these issues through the National VET Reform Agenda, with one of the six priorities being the need to develop, "Trade apprenticeships that are appropriately valued and utilised as a career pathway" (The VET reform vision, 2014).

Table 1: SWOT analysis of the Australian Apprenticeship Sector

Strengths	Weaknesses
 Number of apprentices as a % of workforce. Well supported with Government funding National VET Framework Stakeholder engagement in the VET system Wide variety of supported industries Well supported with statistical data 	 Low levels of successful completion Variance in funding rates across State boundaries. Pathways to higher education (Improvements slowly changing) Consistency of curriculum and assessment Status of VET sector compared to Higher Education
Opportunities	Threats
 Improve retention rates Change attitudes around the value of apprenticeships To increase engagement with e-learning tools to improve access Grow the apprenticeship market to increase opportunities for new entrants Improve access and equity through better targeting of funding 	 Poor completion rates for apprentices Changes to government funding Increased costs of programs passed on to apprentice Lack of relevance of training due to limited industry engagement Apathetic attitudes towards reforms and change in the sector.

Source: (Smith, Brennan and Kemmis, 2013, SKA, 2014 and Mitchell, 2013)

5. IDENTIFYING THE SKILLS AND KNOWLEDGE ENHANCEMENTS REQUIRED

There are examples of areas in Australian industries and education where there are weaknesses in innovation, skills, knowledge, experience, policies and/or formal organisational structures to support the ongoing successful development and recognition of individuals and the particular sector.

The focus of all ISS Institute Fellowships is on applied research and investigation overseas by Australians. The main objective is to enable enhancement and improvement in skills, knowledge and/or practice not currently available or implemented in Australia and the subsequent dissemination and sharing of those skills and recommendations throughout the relevant Australian industry, education, government bodies and the community.

As the Australian VET system continues to evolve, trainers and assessors need to develop their engagement with emerging technologies to support and nurture students. To assist in the professional development of trainers, there needs to be a structural assessment of international best practice to compare and assess the current practices that are in use within Victoria. A number of VET commentators have written of the need for there to be a defined skill enhancement around trainers to improve their use and engagement with emerging e-learning technologies (Dow, Allan and Mitchell, 2011 and Knight, 2012). The main focus for skill enhancements are detailed in Table 2, which also provides a series of actions based around these defined enhancement areas. As shown, the key elements that will drive success will be the use of comparative analysis as the primary tool for evaluation of the three systems and the strengths and weaknesses identified in all. Comparative analysis is defined by Esping-Anderson (1990, p.16) "as the act of comparing two or more things with a view to discovering something about one or all of the things being compared".

Table 2: Skills enhancements and actions

Skill Enhancement Area	Action
Selecting the most effective e-learning platforms to facilitate training to apprentices	Investigate best practice models for the engagement of learners in apprenticeships
Outcome	Assess which models can be best applied to the Australian experience
Improving retention rates for apprentices	Develop a series of examples from Canada that have been effective
Outcome	Promote best practice examples and develop pilot examples
The sign-up and management of the apprenticeship experience	Compare processes across Provinces in Canada and then develop a comparative analysis of the two systems strengths and weaknesses
Outcome	Smarter and more efficient apprenticeships that cater to all stakeholder needs
E-Assessment practice	Investigate the methodologies that are currently applied in Canada
Outcome	Implement best practice examples into a pilot apprenticeship program

Throughout the Fellow's research experience within Canada, Boys visited several organisations involved in the provision and management of Vocational Education and Training (VET) as well as attending the 'Skilled Trades Innovation Forum' in Vancouver. A summary of the interviews and visits are listed below.

Destination: Southern Alberta Institute of Technology (SAIT)

Location: Calgary, Alberta, Canada

Contact: Nicole Dunsdon, Communications Officer, Applied Research and innovation

Services.

Outcomes/ findings:

- The importance of innovation and research in developing new pedagogies for facilitating educational excellence.
- The critical role of industry in the management of training programs.
- New and emerging environmental technologies key to future successes.
- Commercialisation of products in collaboration with industry e.g. new sporting equipment for Olympic events.
- Innovation Spectrum -
 - » 1. Discovery research.
 - » 2. "Valley of death" most products end here.
 - » 3. Creation of the product.
- Funding of projects through Provincial Government.
- Philanthropy-critical to campus development-industry and individual.

Contact: Bradley Ackroyd, Academic Chair, Faculty Development Services.

Outcomes/ findings:

- Professional educators network-new approach to the development of staff throughout their first one to two years within the Institute.
- College is supported by Mentors and professional education practitioners who work with staff to enhance their professional practice.
- SAIT places significant financial and human resources behind the program to support new staff. This includes finances to develop training programs and mentoring support to encourage new and established staff to share their experiences to improve their teaching practice.

Contact: Helen Wong, Associate Director, Centre for Instructional Technology and

Development.

Outcomes/ findings:

• IT services are critical to the overall growth and strategy of the Institute.

- Collaborative services work with each department to enhance their practice and assist them to achieve their team goals in line with the overall strategy and goals of the institute and the Provincial Government's strategies.
- D2L platform is the institute's online management system similar to Moodle.
- Coordination between instructional designers, animators, photographers etc to make sure that all
 content meets standards.
- Projects are prioritised based on internal revenue generation.
- Pedagogy is linked to a Learning Management System (LMS) to allow for greater access to training resources throughout the SAIT training networks across Alberta Province
- Goal to foster Innovation and creativity this is developed through risk aversion, cultural
 implementation of innovative practice and the freedom to fail. Learning to be recorded from each
 experience.
- PD (Professional Development) is not mandated or scheduled but offered free to staff and the takeup rate is high.
- Collaboration with industry is essential to the overall success of e-learning strategy.

Contact: Adamo Farah, Project Manager, Centre for Instructional Technology and

Development.

Outcomes/ findings:

- Instructional designer animations and content generated to assist with engaging remote learners unable to access industry specific equipment to complete assessments.
- · Collaboration with industry to engage in content methodologies.

· Large resources channelled to these projects.

Contact: Wayne Hunter, Curriculum Development Coordinator, School of Hospitality and

Tourism.

Outcomes/ findings:

- See the need to develop higher-level qualifications within Cookery are to maintain currency and influence for the sector; working on bachelor qualifications.
- Work a lot with at-risk programs for young people these programs are used to pathway into apprenticeships and course based programs.
- Combination of certificate based programs and 'Red Seal'

- Apprenticeship hours are 4500 hours workplace with six weeks training per student.
- Education must be meaningful and linked to industry practice. Strong link to pride in the school that students have studied at.
- Advisory committees at a local level meet three times per year to improve teaching and learning outcomes.
- Push towards more online learning and shorter teaching times.
- 'Gold Standard' selection processes for Apprentices 90 per cent completion.
- 'Cook 202' three-week introduction to cooking program that allows potential students to assess the value of the industry. Increases retention by 20 per cent.
- Mentorships are critical to retention of students.



Gardens used by the SAIT to promote sustainable agriculture and link crop production to healthy eating and nutrition



'Live' training kitchen and servery used by the SAIT to train students in real-life kitchen operations in a busy down-town office building



Products created by students for retail sale in the SAIT Downtown Campus Training kitchen



Sugar work as presented for competition by SAIT students. This highlights the quality of training provided to apprentices in Alberta province

Contact: Dr Lionel Schewchuk, Academic Chair, Electrical Trades

Outcomes/ findings:

- Need to maintain strong links to industry.
- Emerging and green technologies need to be engaged with and developed to incorporate into current teaching practice.
- Heavy regulation to maintain compliance.
- Philanthropy is critical to assisting in resource/ infrastructure development.

Destination: HR2Go

Location: Vancouver, British Columbia, Canada

Contact: Dennis Green, Director, Industry Workforce Development.

Outcomes/ findings:

 Apprenticeships consist of six weeks per year of block training within Vocational Colleges and the rest of the year is spent with employers. Weekly engagement records are kept on student workplace activities - no link between school and employer during this period.

- There is a push for more flexible classes, with the possibility of one day per week to maintain links with employers and colleges.
- Assessment for most units consists of multiple-choice exams and there is little or no practical assessment throughout the course. Hours are the only required component.
- Push to pathway from Red Seal Cookery program into Diploma and Degree courses, as a way of further strengthening the quality of graduates and to professionalise the industry further.
- All Cookery programs are overseen by BC ITAB and must follow designated units (see interview with Mr Wayne Hunter, Curriculum Development Co-ordinator).
- Industry advisory councils are critical to ensure quality of programs.
- Articulation Committees influence training programs.
- A lot of sharing and relationships between colleges to ensure high quality of training resources.
 Small colleges benefit.
- RPL is a key element of the skills recognition process. Candidates can 'Challenge' for the recognition
 of their skills into the Red Seal.
- Currently working on the development of a 'Work Activity Rubric' to assist in the recognition of skills process this will involve the uploading of images and video to demonstrate competence.
- Looking at investing in a tablet version of the online content to allow better access to resources.
- Shift IQ is an independent e-learning contractor who are working on a personalised dashboard platform for the next generation LMS which will alleviate the need to convert content to adapt to different electronic devices
- Collaboration is critical to the overall success of courses.
- Totara is the preferred LMS for online engagement.

Destination: BC Campus

Location: Vancouver, British Columbia, Canada

Contact: Lawrence Parisotto, Director, Collaborative Programs and Shared Services.

Outcomes/ findings:

• Works closely with VET providers and encourages sharing of resources between providers.

- BC Campus is an agency of the Ministry for Advanced education and assists in the promotion of innovation in VET providers.
- Twenty-five VET Institutes in BC each Institute is autonomous.
- Data exchange services operate between each of the Institutes to share information Independent from Government.
- Collaborative services: Educational Technology Shared services; Online collaborative programs; Innovation projects.
- Professional development of staff is critical to the success on new and emerging technologies being taken up by trainers and industry.
- Programs must be student centric.
- E-Track a spread sheet/ database that lists all competencies for all training packages and links similarities between units to make the Recognition of Prior Learning (RPL) and Credit Transfer (CT) process easier for students. Highlights crossover between courses and used to re-skill workers when redundancies and transitions from old to new.
- Totara is the preferred LMS platform to support the RPL and CT process for existing employees
- Common open library of resources is also available to all institutes to share and access.
- Blended/online and face to face are key to program facilitation.
- New occupation profiles also can be supported by this database.
- Dashboard to support E-pprenticeships.

Destination: Skilled Trades Innovation Forum

Location: Vancouver Convention Centre-Vancouver, British Columbia, Canada

Workshops attended:

- Trade Training Partnerships between training providers, industry and government are critical to
 up-skill a workforce to manage new and emerging projects. An example of this was the "Sea-Span
 ship building" project which involved training over 200 apprentices to assist in the completion of
 a Canadian government ship-building contract. Responsive and effective relationships are key to
 supporting the development of these types of projects which require prompt engagement from all
 parties to get the ball rolling.
- Blending old and new: creative approaches to training. The workshop focused on the value of
 retaining traditional teaching practices in contemporary course design whilst incorporating new
 and emerging technologies to maintain the relevance and modernity of student learning. A panel
 of members discussed the valuable link between industry, employers and apprentices which they
 referred to as a "continuous mechanism to deliver quality training outcomes for all stakeholders"
 (Langill, 2015).
- Regional Access: Taking Training to Apprentices. Taking apprenticeships to regional and remote areas. Speakers Lindsay Langill and John Chenowith outlined:
 - » Mobile trades training trailer-costly and challenging to manage-bringing training to the communities themselves targeting at risk students
 - » Alternate trade program Interactive TV/ Video-conferencing. Two week face to face intensive-local instructors take the class in the afternoons for the practical component
 - » Lindsay Langill commented that the German Model for apprenticeship training should be further investigated as it provided a contemporary case-study into how apprenticeships can be successful in meeting labour market needs in a divergent and changing economic environment
 - » ACEit is a Vocational training program in Canadian Secondary schools that allows students to engage in their desired vocational field whilst still attending High School. This is a key strategy to improve retention rates as it allows potential apprentices to experience the rigours and expectations of an industry prior to signing up for the 3-4 year apprenticeship.
 - » How to engage "Millenials" in 21st Century learning. Visual learners need on-going feedback whilst studying and working; concept of entitlement and how this will impact on learners; not tech-savvy but tech-dependent.

Destination: Camosun College

Location: Victoria, British Columbia, Canada

Contact: Gilbert Noussitou, Chief Instructor, Chair, Culinary Arts, Trades and Technologies.

Outcomes/ findings:

• Taster programs are critical to allow for an introduction to the industry – four-week intensive programs (attrition rates are mixed).

- Targets disengaged youth and re-skilling employees.
- E-pprenticeship all content online; week by week connectivity and engagement with learners; all content is shared with employer if requested.
- E-pprenticeship: incorporates weekly workplace specials and skills into the learning models.
- The Moodle site is designed by the IT department and there are three components to each unit:
 - » Mini Lesson: PowerPoint; Voice-over; and Camtasia
 - » Lectures: audio files; written content
 - » Videos: Teacher demonstration of three to four minutes (\$750,000 CAD grant to get this set-up).
- Assessments for all units: quizzes (six or more in most units) once achieved competence, they can move on to the next level.
- Communication with Chef employer throughout.
- Completion log required.
- Students must be well supported along with employers.
- Group management needs to be closely followed.



Camosun College training benches in the kitchen, incorporating theory and practice whilst using online learning platforms for training



Industry specific training facilities

7. KNOWLEDGE TRANSFER: APPLYING THE OUTCOMES

The application of the learning outcomes from the Fellowship cover a broad range of areas which has been broken up into the following tables:

Table 3: Strategies to improve Apprenticeship Retention Rates

Provide individual mentors for apprentices through stronger links between industry, government and training colleges. Mentoring in British Columbia has been initiated as a key component for future apprenticeships.

Develop rigorous apprentice selection criteria. This has been implemented by SAIT and they have seen a significant increase in completions over the course of the past three academic years.

Industry relevant training that engages employers, apprentices and training college. This requires regular contact, engagement and input from industry into training design to ensure that outcomes meet the needs of industry.

Trade taster programs to introduce vocational studies and industry standards to prospective students. The taster program is funded by government and allows prospective students to get an insight into the cookery industry prior to signing up for further studies. Although the completion rates in this six-week program are low, it allows for industry to work with the graduates to improve apprentice selection.

Greater incorporation of e-learning methodologies to allow for students to manage learning at their own pace. The flexibility for learners has been evaluated as a key element in retaining students.

Formal introduction to the use and management of e-learning facilities for both employers and the apprentice at the start of each program so all parties are aware of the role that the platform plays in the apprenticeship.

Individualised learning plans for all apprentices.

Table 4: Diverging E-learning Platforms

Totara is used across a number of Technical Colleges and it provides a more rigorous platform that allows for more diverse engagement with students. Further investigation into this product needs to be made to ascertain its capabilities and how they could be implemented into current teaching methodologies.

E-learning is viewed as a component of a 'Blended Learning' approach to education and therefore is deemed to be an element rather than a solution to contemporary training needs.

D2L is used by SAIT as their preferred platform for e-learning due to its compatibility for including video and animation into instructional design.

Collaboration is seen as a critical driver in the maintenance and design of e-learning that supports apprenticeship completion. Institutes that the Fellow visited expressed their reliance on each other to share and enhance learner experiences.

E-learning platforms need to be supported by a dedicated department to ensure a consistent and engaging experience for all stakeholders.

7. KNOWLEDGE TRANSFER: APPLYING THE OUTCOMES

Table 5: The sign-up and management of the apprenticeship experience

SAIT and Camosun College work closely with industry and government and they have developed a rigorous apprentice selection criteria through the use of taster and industry experience training prior to starting a course.

Apprentices are encouraged to find a mentor through industry contacts, thereby expanding the traditional relationship from apprentice, training organisation and government to also include mentoring as a key component to improving retention.

Employers are required to register apprentice activity into a government sponsored data-base on a daily basis to record engagement and progress. The data collected is then used to influence future policy within the apprenticeship sector. This data is seen by training organisations as a critical component of the training agreement and guides competency for apprentices.

Apprentices are able to self-pace their apprenticeship and they can 'Challenge' for the Red Seal testing to complete their studies after a designated period of time. The flexibility in learning is seen as a key element in improving retention as apprentices can manage their studies at their own pace

Apprenticeship Incentive Grants are a taxable cash grant of \$1,000 CAD per year, up to a maximum of \$2,000 CAD per person, available to registered apprentices once they have successfully finished their first or second year/level (or equivalent) of an apprenticeship program in one of the Red Seal trades. There is also a \$2000 CAD completion payment for apprentices.

Table 6: E-Assessment practice

Greater collaboration and support amongst VET practitioners to share best practice for the benefit of the sector. This was seen as critical to ensure that smaller providers had access to quality training resources that were supported by strong e-learning platforms.

E-Assessment is an emerging practice that is not on the radar for VET providers. More research needs to be done in this area to develop a case for the implementation of such practice into teaching methodologies.

Traditional teaching methodologies are at odds with e-assessment and there needs to be a cultural recognition of this as a challenge for practitioners.

The Fellow has developed a one-hour presentation detailing the key experiences, learning outcomes and recommendations from the International experience. The Fellow has also provided a series of best-practice examples to be used by interested parties to further their development in this skill deficiency area.

The presentation has been delivered to the following partners:

- Bass Coast Education Reference Group July 2015
- South Gippsland and Bass Coast Local Learning and Employment Network (SGBCLLEN) August 2015
- Chisholm Institute Chef Educators Network August 2015
- Victorian Tourism and Hospitality Educator's Network (VTHEN) November 2015.

8. RECOMMENDATIONS

The interviews and meetings that formed the basis for the Fellowship and the information and observations that were made by the Fellow have formed the recommendation listed below:

Industry

With reference to the Fellowship findings, Industry is encouraged to:

- Review the current system used to train apprentices and look to greater synergies and practice methodologies for 'Blended learning' to be incorporated into traditional teaching practices.
- Industry, Government and Training providers need to further enhance their engagement and
 collaboration to ensure that units of competence and the core skills and knowledge embedded
 into the learning are linked to best industry practice. This will ensure that apprentices are receiving
 current, valid training that meets industry needs.
- Create the opportunity for industry and training organisations to develop a formal mentoring program that links individual trainees with experiences chef's to guide them through the apprenticeship.

Government

With reference to the Fellowship findings, Government is encouraged to:

- Support innovation by providing greater access to contestable grants to allow VET practitioners to develop best practice models for the engagement and facilitation of apprentices.
- State governments need to ensure that training organisations are guaranteed a consistent level of funding to allow for quality training that is contemporary and relevant to industry needs.
- Training packages need to be reviewed with the notion of greater flexibility being given to the design
 of qualifications so that apprentices and industry can tailor learning that meets their workplace
 needs.
- Both State and Federal governments should provide greater resources to ensure that apprentices
 are receiving quality training throughout the duration of their indentureship. Continual engagement
 with RTOs around compliance and training standards is critical to maintaining a relevant training
 system.
- Research the capabilities associated with the implementation of an online apprenticeship model that is supported through apprenticeship field officers and employers.

Education and Training

With reference to the Fellowship findings, the Education and Training sector is encouraged to:

- Partner with industry to develop up-to-date and contemporary industry practices into current training programs.
- Invest in the Professional Development of trainers within RTOs to ensure that they maintain currency with modern industry practice.
- Engage with international best practice to determine facilitation models for apprenticeships that
 allow for greater flexibility for industry, apprentices and RTOs. There needs to be a re-framing of the
 roles that each stakeholder plays in the apprenticeship process with new and emerging teaching
 practice/ technologies being at the forefront of these conversations.
- Greater collaboration between VET Institutes to ensure that training resources and assessments are validated and moderated on a consistent basis.

8. RECOMMENDATIONS

• The strengthening of Industry Engagement from a local Teaching Practitioner level to ensure that training programs are meeting the needs of communities with reference to the ability for further contextualisation of programs.

Community

With reference to the Fellowship findings, Community is encouraged to:

- Demand from Government that quality training is accessible to all Victorians without prejudice.
- Invest in the development of apprenticeships to ensure they are treated in the highest regard by industry and community. This is a key element in re-defining the notion of what value community places in the training of apprentices and the role that they play within the modern-day workplace.

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