



Minerva Access is the Institutional Repository of The University of Melbourne

Author/s:

Clarke, K;KLATT, M;Dulfer, N;Cruickshank, E

Title:

Working their way to school completion: School-Based Apprenticeships and Traineeships for young Australians

Date:

2015

Citation:

Clarke, K., KLATT, M., Dulfer, N. & Cruickshank, E. (2015). Working their way to school completion: School-Based Apprenticeships and Traineeships for young Australians. Smith, E (Ed.) Gonan, P (Ed.) Foley, A (Ed.) pp.175-182. Australian Scholarly Publishing.

Persistent Link:

<https://hdl.handle.net/11343/247837>

ARCHITECTURES FOR APPRENTICESHIP

Achieving Economic and Social Goals

Erica Smith, Philipp Gonon & Annette Foley (editors)

Major conference sponsor

Department of Education and Training, Canberra.

Minor conference sponsors

Federation University Australia, National Centre for Vocational Education and Training Research, Group Training Australia.

International conference committee

Prof. Erica Smith, Federation University Australia (Chair of Committee); Prof Philipp Gonon, University of Zurich; Ursel Hauschildt, Bremen University; Prof. Robert I. Lerman, American University; Prof. Felix Rauner, Bremen University; Prof Michele Tiraboschi, University of Modena and Reggio Emilia Italy; Bonnie Watt, University of Alberta; Prof. Zhiqun Zhao, Beijing Normal University; Craig Robertson, Head of Skills Policy Division, Department of Education and Training, Australia.

Australian conference committee

Jo Hargreaves (National Centre for Vocational Education Research) ; Jeff Priday (Group Training Australia); Jason Van Ballegooyen (Department of Education and Training, Canberra); Carl Walsh (Department of Education and Training, Victoria); Kevin Heys (Australian Vocational Education and Training Research Association [AVETRA]); Barry Wright (Federation University Australia); Damien Pearce (National Youth Science Forum); Joe Pagnoccolo (Swinburne University).

Members of AVETRA who provided English language assistance to authors

Anne Jones, Llandis Barratt-Pugh, Gosia Klatt, Jill Hadley, Selena Chan, Anthony Bailey, Ray Smith, Francesca Beddie, Helen Weadon, John Stanwick, Carolyn Johnstone, Hugh Guthrie, Bill Blayney, Kevin Heys, Tim E. Powers.

Research assistants who helped to compile the book of papers

Cara Steele, Simone Bartrum, Gillian James.

© Federation University 2015

First published 2015 by Australian Scholarly Publishing
7 Lt Lothian St Nth, North Melbourne, Vic 3051

ISBN: 978-1-925333-09-1

ALL RIGHTS RESERVED

e.smith@federation.edu.au

TEL: 03 5327 9665

TABLE OF CONTENTS

INTRODUCTIONS

Philipp Gonon & Erica Smith Chairpersons, INAP Board.....	11
--	----

David Battersby, Vice Chancellor Federation University Australia	13
---	----

KEYNOTES

Two distinct conceptions of apprenticeship	17
---	-----------

Stephen Billett

Can the traditional apprenticeship in the informal economy of least developed countries be integrated as legitimate pathways in formal skills development systems	21
--	-----------

Paul Comyn

Developing T-shaped people: Transforming skills into skilfulness to meet the demands of the 21st century workplace.....	26
--	-----------

Raymond Patel

SECTION 1 GOVERNANCE AND STAKEHOLDERS

1.1. A history of apprenticeship and trade training in Victoria, Australia	33
---	-----------

Mike Brown

1.2. Exploration and practice of modern apprenticeship training with school-enterprise dual system: A case study of Guangzhou Industry & Trade Technician College	39
--	-----------

Weiqun Tang

1.3. Associations between adaptation of German style vocational education models and impact on apprenticeship pathways in regional American labour markets	43
---	-----------

Nicholas M Wyman and Joanne B Gedge

1.4. Governance and financing of dual VET: Foundation of an evaluation framework and findings of a comparative research in five European countries	47
---	-----------

Ursel Hauschildt and Wolfgang Wittig

1.5. Insights in governance of vocational education from a historical perspective	54
--	-----------

Volker Bank

1.6. The governance framework for VET schoolenterprise cooperation in China at the local level	58
---	-----------

Haisheng Pan

1.7. Irish apprenticeship system reform 2013 to date	62
---	-----------

Maurice Doran

1.8. Stakeholders in the German and the Swiss VET system and their role in innovating apprenticeships	68
--	-----------

Thomas Deissinger and Philipp Gonon

1.9. Research and practice on ‘Tripartite Collaboration’ of innovation apprenticeship	72
--	-----------

Jinlan Wang and Yuqi Chen

1.10. Modern apprenticeship as a supplement to the school based vocational education system in China	77
---	-----------

Zhiqun Zhao and Junlan Chen

1.11. Development and definition of National Occupational Standards (NOS) as the curriculum basis for Vocational Education and Training (VET)	82
--	-----------

Willi Peterson and Maik Jepsen

1.12. Why apprentices drop out in Australia and the policy implications	87
--	-----------

Phil Loveder

SECTION 2 TEACHING AND LEARNING IN APPRENTICESHIPS

2.1. Competence measurement in South Africa: Teachers’ reactions to feedback on COMET results.....	91
---	-----------

Helen Brown

2.2. Research on the modern apprenticeship based on the talents training mode of the national skill master studio: The construction of Lingnan Industrial Art Inheriting Base96

Ye Junfeng and Luo Wei

2.3. me siento bien en mi centro de formación – I feel good at my training institution: Results of an international competence assessment in nursing100

Ursel Hauschildt

2.4. Teaching and learning research in master studio apprenticeship training.....105

Bamei Yang, Kejing Li, Bin Bai and Enmin Zhai

2.5. School-based technician training under the framework of modern apprenticeship: Experiences from a pilot program in Guangzhou109

Donglian Gu

2.6. Improving the dynamics of feedback through deploying mobile technology-enhanced learning during pre-apprenticeship 113

Selena Chan

2.7. Skilled trade worker to teacher of high school youth: A little bit of luck and a lot of courage 118

Bonnie Watt

2.8. Pre-apprenticeships towards apprenticeships using practice-focused learning122

James Cannan

2.9. Learning as an apprentice: A comparative study on affordances for vocational learning in school and work life apprentice education126

Magnus Fjellström and Per Kristmansson

SECTION 3 WHAT MAKES A HIGH QUALITY APPRENTICESHIP

3.1. Working process knowledge acquiring and working tasks research: A case study of technician apprenticeship training in Guangzhou Technician College.....133

Xiang Geng, Bin Bai, Bamei Yang and Enmin Zhai

3.2. On motivations, predicament and countermeasures of the modern continuation of China’s handicraft apprenticeship..... 136

Liangcai Xie

3.3. Using apprenticeship as a whole-of-workforce training strategy: What are the effects on training quality? 140

Erica Smith

3.4. Efficacy of CBQ (Cost Benefit and Quality) as an advisory tool to optimise costeffectiveness and quality development of incompany apprenticeship training 145

Lusanda Bantwini and Tsholo Mungoni

SECTION 4 ECONOMIC INVESTMENT & BENEFIT OF APPRENTICESHIP

4.1. A qualitative assessment of the United Services Military Apprenticeship Program (USMAP) 151

Robert I. Lerman and Devlin Hanson

4.2. Concerns, costs and calculation for apprenticeship: Who invests? Who benefits? How?..... 155

Michaela Marterer and Peter Härtel

SECTION 5 SCHOOL TO WORK TRANSITION & YOUTH EMPLOYMENT

5.1. Creating pathways to enhance college to work transition using COMET competence diagnostic model to access and develop occupational competence and commitment in Technical Vocational Educational and Training (TVET) 161

Patricia Jacobs

5.2. Application and contrastive analysis of the different apprenticeship training modes for automobile majors: Taking Guangzhou Communications Technician Institute as an example 166

Cai Changwen

5.3. Higher apprentices’ transition from school to work: Case analysis on the education of technicians in Guangzhou Technician College, in China..... 171

Zongguo Li and Hao Wu

5.4. Working their way to school completion: School-based apprenticeships and traineeships for young Australians.....175

Kira Clarke, Malgorzata Klatt, Nicky Dulfer and Emlyn Cruickshank

SECTION 6 STATUS OF APPRENTICESHIP AS A CAREER PATH

6.1. Apprenticeships should work for women too: Supporting meaningful exploration of ‘non-traditional careers’ for young women183

Linda Simon and Kira Clarke

SECTION 7 APPRENTICESHIP’S CONTRIBUTION TO SOCIAL JUSTICE

7.1. The development of skill for sustainability for Australian apprentices and trainees during the UN decade of education and sustainable development 2005–2014.....189

Mike Brown and Fabian Sack

7.2. A quest for social justice: Exploring the possibility of expanding the South African apprenticeship system to provide access to informal apprentices194

Ansa Leibenberg

PRESENTATIONS

P.1. Preparing TVET graduates from small Pacific nations for international employment201

Antione Barnaart

P.2. Apprenticeship in former Soviet Union countries: The role of employer organisations and intermediary bodies.....202

Didier Gelibert and Helmut Zelloth

P.3. Women in the auto trades: Views from employers, tradeswomen and apprentice204

Hugh Guthrie, Anne Jones and Berwyn Clayton

P.4. The role of regional occupational standards and potential for apprenticeships in ASEAN countries206

Bob Paton

5.4. Working their way to school completion: School-based apprenticeships and traineeships for young Australians

Kira Clarke, Malgorzata Klatt, Nicky Dulfer and Emlyn Cruickshank

*Centre for Vocational and Educational Policy, Melbourne Graduate School of Education,
The University of Melbourne, Carlton, Victoria*

Summary: This paper is part of a three-year longitudinal study of School-Based Apprenticeships and Traineeships (SBATs), which seeks to explore the nature and effectiveness of SBATs as a pathway from school to sustainable occupational employment. This paper discusses past and current policy trends and objectives represented by various Australian jurisdictions. It focuses on building a detailed illustration of the learner profile of SBATs and the type of occupations and qualifications being undertaken at school. This analysis was achieved through statistical analysis of two Combined Unit Record Files (CURFs) obtained from National Centre for Vocational Education Research (NCVER). This quantitative work builds the basis for future work future qualitative work exploring the motivations, expectations and experiences of SBAT learners.

Keywords: VETiS (VET in schools), SBAT (school-based apprenticeships and traineeships, employment-based pathways

Introduction

Australia's apprenticeship and traineeship framework is unique in the English-speaking world; only a handful of American states and Canadian provinces offer comparable systems, and there are no equivalent federal bodies and legislative arrangements for school-based models of employment-based training (EBT). The Australian apprenticeship system, predominantly modelled on the British system (Keating 1995), diverged from its historical form in the midst of growing youth unemployment during the 1990s. Looking to strengthen the EBT system, Australian governments proceeded with forming a unified entry-level training system that integrated State based apprenticeships with Commonwealth based traineeships (Keating 1995). School-based apprenticeships and traineeships (SBATs), first introduced in 1996 as an alternative to full-time apprenticeships, are among the more recent additions to the Australian EBT landscape, enabling mainly senior secondary students the opportunity to undertake a paid apprenticeship or traineeship part-time, while also completing a senior school certificate. The re-booting of SBATs under the New Apprenticeship framework in 1998, coincided with a Commonwealth push to widen access to VETiS (Knight 2012).

Internationally, standardised frameworks for delivering and assessing vocational competencies are few, and those that do exist are not delivered in mainstream schools. The capacity to undertake apprenticeships part-time is not common, and there are no VET in Schools (VETiS) equivalent frameworks. Barriers to effective uptake of EBT pathways include public perceptions about apprenticeship pathways and the politics of federation in Canada and the United States particularly.

While recent research has explored the role of Vocational Education and Training (VET) in Schools for young people (Clarke & Volkoff 2012; Clarke 2012; Polesel & Clarke 2012; Clarke & Polesel 2013; Clarke 2013), limited Australian-based empirical work has been completed examining the efficacy of EBT models for school-enrolled young people. A key challenge facing researchers of SBATs is the lack of an existing, clear governance and policy framework for understanding the objectives and role given to SBAT across States and Territories, including equity programs, financial incentives or mentoring structures. This paper, drawing on current research investigating the retention and attrition of apprentices and trainees within the school context, seeks to lay the foundations for longitudinal empirical work with cohorts of SBATs and other young apprentices and trainees.

Setting the scene

As SBATs have evolved they have represented both an uptake strategy by the Commonwealth Government for apprenticeships and traineeships in response to perceived industry need, and another move towards a user-choice model for the training of apprentices and trainees, established by the New Apprenticeships framework of 1998. This move has coincided with increased funding incentives for secondary schools to establish trade training centres, and a tax refund to apprentices and trainees of 50 per cent for all education and training related expenses (Karmel & Mlotkowski 2008).

SBATs have given young people the capacity to start a part-time apprenticeship or traineeship while still attending school; gaining their senior secondary certificate of education upon completion of Year 12, completing part of an apprenticeship or traineeship certificate and receiving a part-time salary. Uptake of SBATs was initially slow, but grew rapidly from 6,100 in 2002 to 20,700 in 2008, dropping slightly to 19,000 in 2010.

Australian-based studies of apprenticeship attrition have found that empirical findings and commentary on the efficacy of the SBAT model generally present a positive experience for schools, training organisations, apprentices, trainees and their employers (Smith & Wilson 2002; Helme et al. 2009). Research has indicated that participation in an SBAT can reduce the chance of attrition from a full-time apprenticeship (Dalley-Trim, Alloway & Waller 2008). Attrition from apprenticeships has been found to stem from a range of personal or background factors, training factors, employment/industry factors, and structural/system-based factors (Callan 2008; Volkoff & Jones 2007; Huntly Consulting 2008; Group Training Australia 2005; Harris et al. 2001).

Previous research highlights the layered and demanding nature of SBAT requirements, student readiness and commitment, and the organisational complications involved in partnering various educational and employment stakeholders as issues impacting take-up and requiring policy responses (Currie & McCollow 2002).

Methods and research design

The underlying research question for our analysis is 'Who are the learners participating in SBATs and what qualifications are they undertaking?'. The research has focused on building a detailed illustration of the learner profile of SBATs and the type of occupations and qualifications being undertaken by young people completing an employment-based pathway to school completion. This work has been completed through interrogation (statistical analysis) of two Combined Unit Record Files (CURFs) obtained from NCVET. To provide a context for the Australian-wide analysis of these profiles it was important to analyse the policy-environment currently in place. For this reason, a comprehensive environmental scan of existing governance and policy frameworks for SBAT in Australia

was conducted, which revealed a picture of a layered and complicated policy environment surrounding SBATs.

Findings and discussion

Policy Analysis

As is the case with many curriculum and provision issues associated with senior secondary education across Australia's eight states and territories, there are a diverse range of frameworks within which young people can complete an SBAT. Following a comprehensive environmental scan of SBAT policy frameworks, a table was created to compare all Australian States and Territories including current policies in place, breadth of the intake, contribution of SBATs to school completion certificates and entry to university, incentives, equity and mentoring provided. The key insights provided by this policy analysis were:

- SBATs are formally recognized within all Australian senior secondary certificates of education and in many cases can form the major component of a school completion pathway. There is particular flexibility within the school completion certificates of Queensland, South Australia and Victoria, for young people to use SBATs as the dominant activity through which they obtain credits towards their senior secondary certificate of education.
- The contribution of SBATs towards an ATAR (Australian Tertiary Admissions Rank) which is used to gain access to university, remains limited in most jurisdictions. In many cases an option for scored assessment, which may contribute to an ATAR calculation, is available for a limited number of fields or occupational areas.
- There is increasing incentivisation of the SBAT pathway, particularly for employers who in many jurisdictions have access to funds when taking on a young apprentice and again when apprentices successfully complete their four-year indenture.
- The dominant equity focus within SBAT provision is on Aboriginal and Torres Strait Islander (ATSI) young people. In most states and territories ATSI SBAT schemes offer mentoring for both learners and employers and cultural competence training for employers and trainers.

Quantitative analysis

To enable the quantitative mapping of the 2013 Australian SBAT cohort, two NCVET CURF files were obtained. These files provided detailed case level information for all 15 to 19 year olds engaged in VET, both those still enrolled at school and those who had completed Year 12 or left school early. The purpose of the analysis was to identify the demographic, locational, field of education and qualification characteristics of the SBAT cohort. This illustration is a pre-cursor to future qualitative analysis of the motivations, expectations and experiences of young people using the SBAT pathway to support school completion and to access post-school VET and post-school employment-based training.

The non-school apprenticeship/traineeship CURF was used to contextualise and compare the SBAT activity against employment-based training activity of young people more broadly.

Demographics of SBAT learners

In 2013, there were 21,676 SBAT learners, making up slightly less than one in ten (9%) of all school students undertaking a vocational program. There were almost equal numbers of boys and girls undertaking SBATs across Australia. However, this varied slightly by

socioeconomic quintile. Almost half (43%) of these young people using an SBAT to complete school were from the two lowest quintiles of the Socioeconomic Index for Areas (SEIFA). There were more young women than young men from the lowest quintile enrolled in SBATs, while in the higher SES quintiles young men outnumbered their female counterparts.

While there has been take-up of SBAT pathways across all three schooling sectors, the vast majority (78%) of SBAT learners are in the government sector, with a further 10 per cent in Catholic schools and 7 per cent in independent schools.

Location

In regional areas SBATs are sometimes used as a compromise for students who face transport and distance barriers to accessing full-time apprenticeships. Access to and take up of SBATs varies between urban and rural locations, with slightly more than half (56%) of SBAT students living outside metropolitan areas. New South Wales and Queensland have the highest proportion of their SBAT learners living outside metropolitan areas (67% and 61% respectively). The balance between metropolitan and rural participation in SBATs is more even in Victoria and South Australia. The balance between metropolitan and rural is skewed for Tasmania (72% rural) and the Australian Capital Territory (93% metropolitan), congruent with the geographic characteristics of those two jurisdictions. Western Australia, in contrast, has very little take-up of SBATs outside of Perth, with only 29 per cent of SBAT learners living in rural areas.

If we look at where SBATs are playing a significant role for young people (e.g. where enrolments are high), the list of local government areas reads as a list of Australia's disadvantaged communities and also as those regions facing high youth unemployment: Tuggeranong in the ACT, Newcastle and Blacktown in NSW, Gold Coast West and Logan City in Qld, Northern Adelaide in SA, Melton-Wyndham and Frankston City on Victoria, and the South West and Northern metropolitan areas of Perth.

The initial statistical analysis has highlighted the socioeconomically disadvantage profile of SBAT learners. SBATs, serving the dual purpose of a pathway to school completion and a pathway to a skilled occupation, are most frequently being used in communities confronting the challenges of high youth unemployment.

Fields of education and qualification levels

Four fields of education (FoE) dominate SBAT participation, making up three-quarters (75%) of all SBAT enrolments: Management and commerce (26.5%), Food hospitality and personal services (20.2%), Society and culture (15.2%) and Engineering and related technologies (13.1%). The dominance of these four FoEs was fairly consistent across the different states and territories, with the exception of Victoria where the education field was more popular than engineering; Victorian SBATs in the education FoE made up 84 per cent of all education field SBATs nationally. The take-up of SBATs in the various FoEs vary by gender, with young men more likely to be doing an engineering SBAT and young women more likely to be undertaking a management and commerce or hospitality SBAT. There were also FoE differences between metropolitan and rural areas. SBATs in rural areas were more likely than their metropolitan peers to be enrolled in architecture, engineering and health related fields, while metropolitan SBATs were more likely than those in rural areas to be enrolled in education and information technology fields.

The three dominant fields of education within SBAT enrolments raise some concerns about the efficacy of those fields in enabling transition to sustainable and secure post-school employment and employment-based training. Previous work (Clarke 2013) has highlighted

the tension for schools between providing access to vocational curriculum that is of relevance and interest to their students and promoting enrolment in vocational curriculum that has currency and value in the local labour market.

The vast majority (72%) of SBAT learners are enrolled at Certificate III level. A further one in four (24.2%) were enrolled in Certificate II level programs, which were more common in the architecture, and management and commerce fields.

Future work

The next stage of this study will involve qualitative interviews with SBAT learners. We are currently conducting interviews with SBAT students attending Catholic and public schools in NSW and Victoria. All students were undertaking an SBAT as part of their pathway to school completion. These interviews focus on motivations and expectations of SBAT learners.

A key challenge facing researchers of SBATs is the lack of an existing, validated conceptual framework for analysing the impact of an embedded employment-based model within a compulsory-age educational setting. Initial conceptual work by the researchers has drawn on the notions of employment and education logics. While this initial conceptual work by the researchers has enabled the identification of four key stages within the SBAT-Apprenticeship/Traineeship timeline (within 6 months of SBAT enrolment; at 12 months participation in SBAT; at school completion/school exit; and within 6 months of commencement of full-time Apprenticeship/Traineeship), there is limited empirical, Australian-based research that has examined the implications of the location of the employment-based training model (employment logic) within the Australian senior secondary landscape (education logic).

A second stage of this SBAT research will address the research question '*In what ways does the SBAT model enable educational and occupational development and progression?*' Drawing on the understanding of the learners from this first stage, this further study will involve the development of a new conceptual framework for understanding the employment-based training model within the school context. In stage two, school-based case studies will involve interviews with SBAT social partners (schools, employers, training organisations). This stage will also involve surveying young apprentices and trainees, employers and trainers about the effectiveness of the school-based model of employment-based training.

References

- Callan, V. (2008): 'Train to Retain' Literature Review: Final Report, report prepared by Callan Consulting Group Pty Ltd and the University of Queensland Business School for the Department of Education Training and the Arts and the 'Train to Retain' Reference Group.
- Clarke, K. (2012): Entry to vocations: the efficacy of VET in Schools, NCVER, Adelaide.
- Clarke, K. (2013): *Entry to vocations: strengthening VET in Schools*, NCVER, Adelaide. <http://www.ncver.edu.au/publications/2678.html>
- Clarke, K. and Polesel, J. (2013): "Strong on retention, weak on outcomes: the efficacy of Vocational Education and Training in Schools for disadvantaged students", *Discourse: Studies in the Cultural Politics of Education*, Special Issue: New assemblages of equity and marketisation in Australian education: Emerging policies and practices, Vol. 34 (2) 259-273.
- Clarke, K., & Volkoff, V. (2012): Entry to vocations: Current policy trends, barriers and facilitators of quality in VET in schools. Adelaide, SA: NCVER.
- Currie, W., & McCollow, J. (2002): Vocational education and training in schools: Enhancing student career options. Canberra, ACT: AEU.
- Dalley-Trim, L, Alloway, N & Waller, K (2008): 'Secondary school students' perceptions of and the factors influencing their decision making in relation to VET in Schools', Australian Educational

Researcher, vol.35, no.2, pp.55—69.

- Group Training Australia (2005): Good Start, Great Finish – Improving Completion Rates for New Apprentices, a report completed by Group Training Australia Ltd for the Victorian Office of Training and Tertiary Education (OTTE).
- Harris, R., Simons, M., Bridge, K., Bone, J., Symons, H., Clayton, B., Pope, B., Cummins, G. and Blom, K. (2001): Factors that contribute to retention and completion rates for apprentices and trainees, Australian National Training Authority.
- Helme, S., Teese, R., Dulfer, N., Robinson, L., & Jones, T. (2009): Provision, participation and achievement: A study of the western metropolitan region. Unpublished draft report of the Centre for Post-compulsory Education and Lifelong Learning.
- Huntly Consulting Group Pty Ltd (2008): Exits from the Trades, report prepared for the Department of Education, Employment and Workplace Relations, Australian Government, Canberra.
- Karmel, T., & Mlotkowski, P. (2008): School-based apprenticeships and traineeships. Adelaide, SA: NCVET.
- Keating, J. & Curriculum Corporation (Australia) (1995): Introducing vocational education. Carlton, Vic: Curriculum Corporation.
- Knight, B. (2012): Evolution of apprenticeships and traineeships in Australia: An unfinished history. Adelaide, SA: NCVET.
- Polesel, J. & Clarke, K. (2011): 'The marginalisation of VET in an Australian secondary school', Journal of Vocational Education and Training, Vol. 62 (4) 525-538.
- Smith, E., & Wilson, L. (2002): Learning and training in school-based apprenticeships and traineeships. Adelaide, SA: NCVET.
- Volkoff, V. and Jones, T. (2007): Analysis of factors contributing to apprenticeship and traineeship completion, report prepared by the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne, for the Office of Training and Tertiary Education, Department of Innovation, Industry and Regional Development, Victoria.