

What is the perceived effectiveness of fully on-the-job training for carpentry apprenticeships?

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Table of Contents

Abstract	v
Statement of Authorship	vi
Statement of Ethics Approval	vii
Acknowledgements	viii
Professional Editing Assistance	ix
Chapter 1: Introduction	1
Definition of Fully On-The-Job Training	1
Rationale for This Research	2
My Background in the VET System	4
Organisations Involved in the Apprenticeship System	5
Significance of the Research	7
Thesis Questions	9
Thesis Structure	9
Chapter 2: Background and Literature Review	11
Introduction	11
Construction in Australia	11
Australian Apprenticeships and Traineeships	12
Recent Developments in Apprenticeships	22
Local Learning Employment Networks	26
Learning in Apprenticeships	27
Advantages of Workplace Learning	34
Challenges of Workplace Learning	36
Chapter Summary	40
Chapter 3: Research Method	44
Chapter Overview	44
Theoretical Framework	44
Research Questions	46
Research Approach	46
Ethical Issues and Approvals	52
Research Method	53
Limitations of the Research Method	60
Data Analysis Process	62
Chapter Summary	66
Chapter 4: Findings	67
Introduction	67

Stage 1: Fully On-The-Job Training Model – Apprentices	67
Stage 1: Fully On-The-Job Training Model – Employers	75
Stage 2: Fully On-The-Job Apprentice Follow-Up Telephone Interviews.....	79
Stage 1: Dual-Mode Training Model – Apprentices.....	81
Study 1: Dual-Mode Training Model – Employers	84
Stage 2: Dual-Mode Apprentice Follow-Up Telephone Interviews	86
Focus Groups	86
Chapter Summary	94
Chapter 5: Analysis.....	97
Overview	97
What Are the Benefits and Challenges of Fully On-The-Job Training for the Apprentices and Employers Using This Mode of Training?	97
How Do the Different Modes of Fully On-The-Job and Dual-Mode Training Compare?	103
How Do the Different Participants (Apprentices, Employers and Focus Group Members) View the Different Modes of Training?	105
How Can Fully On-The-Job Training Deal with Apprentices in Narrow Job Roles?	107
Chapter Summary	109
Chapter 6: Conclusion.....	110
Apprentice Views.....	110
Issues Raised by the Study.....	111
Advantages Identified in the Study.....	112
Chapter Summary	113
References.....	116
Appendices.....	121
Appendix A: Ethics Approval.....	121
Appendix B: Plain Language Information Statement.....	124
Appendix C: Consent Form	126
Appendix D: Interview Questions	128
Appendix E: Sample of Matrix – Apprentice Group 1 (Fully On-The-Job).....	135

List of Tables

Table 1. List of Units within the CPC30211 Certificate III in Carpentry Qualification....	31
Table 2. The Expansive–Restrictive Framework.....	38
Table 3. Representative Sampling	48
Table 4. Employers and Apprentices Interviewed.....	57
Table 5. Gippsland Focus Group	58
Table 6. Bendigo Focus Group	59
Table 7. Strengths of Fully On-The-Job Training (Apprentices).....	64
Table 8. Strengths of Fully On-The-Job Training (Employers)	64
Table 9. Weaknesses of Fully On-The-Job Training Identified by the Focus Groups	64
Table 10. Strengths of Dual-Mode Training (Apprentices).....	65
Table 11. Strengths of Dual-Mode Training (Employers).....	65
Table 12. Strengths of Dual-Mode Training (Focus Groups).....	65
Table 13. Weaknesses of Dual-Mode Training (Apprentices)	65
Table 14. Weaknesses of Dual-Mode Training (Employers)	65
Table 15. Fully On-The-Job Training (Apprentices).....	67
Table 16. Fully On-The-Job Training (Employers).....	75
Table 17. Dual-Mode Training (Apprentices)	81
Table 18. Dual-Mode Training – Employers.....	84
Table 19. Focus Group 1 – Gippsland	87
Table 20. Focus Group 2 – Bendigo	90

List of Figures

Figure 1. Conceptual framework.	45
Figure 2. Four elements of Crotty’s research design framework.....	49

Abstract

This study examined the training experiences of apprentices and employers who were involved in fully on-the-job training in the building and construction trades, specifically in carpentry.

Fully on-the-job training, in apprenticeship, means that all training is delivered at the workplace rather than in an institution or training centre and must include structured training arrangements. The apprentice acquires competence through the performance of normal work duties, with some self-managed or facilitated training, as well as receiving support from the appointed Registered Training Organisation (RTO) trainer or trainers, which is all undertaken on the worksite.

In the building and construction trades, carpentry apprentices in Australia must gain skills and knowledge over an extensive range of competencies to achieve their qualification. Traditional construction trade jobs have become more specialised over the past 20 years, which could limit the learning activities in terms of tasks and knowledge, resulting in a restricted range of skills. The project investigates this issue and other possible challenges of this delivery model.

This qualitative research project involved individual apprentice and employer interviews together with key stakeholder focus group sessions. The research question was:

What is the perceived effectiveness of fully on-the-job training for carpentry apprenticeships?

Findings included people's views regarding the advantages, disadvantages, the learning impacts and the outcomes of fully on-the-job training and ways of compensating for limited job roles.

Statement of Authorship

Except where explicit reference is made in the text of the thesis, this thesis contains no material published elsewhere or extracted in whole or in part from a thesis by which I have qualified for or been awarded another degree or diploma. No other person's work has been relied upon or used without due acknowledgement in the main text and references of the thesis.

Signed:

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Dated:

22/10/18

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Statement of Ethics Approval

This study was based on interviews with a number of different participant groups and focus groups. The study was approved by Federation University Australia's Ethics Committee prior to the study commencing on 23 May 2014 (see Appendix A). Each interviewee was informed of the process and conditions – Appendix B contains a copy of the Plain Language Information Statement and Appendix C contains a copy of the consent form.

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To the staff at the Baw Baw and Bendigo (Goldfields) Local and Learning Employment Networks, my sincere gratitude to you for generously assisting in organising and recruiting relevant stakeholders to participate in the two focus group sessions.

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Professional Editing Assistance

Paid editorial assistance was obtained from Brenton Thomas – Fresh Eyes Australia Editing and Proofreading Services and Kim Woodland Editing Services – in accordance with Federation University Australia’s guidelines.

Permission was obtained before proceeding with the editorial assistance. The services provided were limited to copyediting, proofreading and formatting.

Chapter 1: Introduction

This introductory chapter provides an overview of the study, which examined the carpentry trade in the building and construction industry in the state of Victoria.

Specifically, the study sought to describe the experiences of apprentices and employers involved in fully on-the-job training in the carpentry trade. It identifies the benefits and challenges with this model through examining the views of apprentices, employers and stakeholders. Whilst the main aim of the research was to examine the fully on-the-job training, some apprentices and their employers engaged in the more traditional on- and off-the-job training model were also examined to enable a comparison to be drawn with off-the-job training delivered by a training provider.

In this introduction, a description and the purpose of the research is provided, together with the main question and associated sub-questions outlining the objectives and significance of the study. The chapter concludes with a summary of the thesis structure that includes a précis of each chapter.

Definition of Fully On-The-Job Training

Fully on-the-job training means that all training in an apprenticeship or traineeship is delivered at the workplace rather than in an institution or training centre. Fully on-the-job training must include structured training arrangements. The apprentice's competence is acquired through the performance of normal work duties, with some self-managed or facilitated training, as well as receiving support from the appointed Registered Training Organisation (RTO) trainer, which is all undertaken on the worksite.

For this study, I refer to the more traditional combination of on-the-job (workplace) and trade school-based training as "dual mode". The "dual system" is the term given to

apprenticeship in the Germanic countries, and this system is often regarded as the ideal for quality apprenticeships (INAP Commission, 2012).

Rationale for This Research

Apprenticeship training in Australia has traditionally included two modes of delivery, with fully on-the-job training beginning in the mid-1990s with the relaxation of what were then mandatory requirements for off-the-job training (Smart, 2001). It has expanded since the opening up of the training market to competition between providers, both private and public, in 2010 (Department of Education and Early Childhood Development, 2012). This system is currently known as demand-driven training in the Victorian vocational training sector. It provided the rationale and the interest for this research study, which was applicable to the circumstances in Victoria.

Since 1998, the introduction of “user choice” arrangements has enabled employers, together with the apprentices and trainees, to decide which RTO will provide their training and where, when and how the training will be delivered (Selby Smith, 1998). The growth of user choice and increased numbers of private RTOs in the open training market has driven significant change within the vocational training sector in Victoria. When training involves the public interest – government funds, industrial or other regulations and the integrity of national VET qualifications – then governments and the general public have an interest in the way training is delivered.

People’s understanding of apprenticeship is the journey that an individual takes in order to acquire the specific disciplinary and vocational knowledge, applied skills, values and processes associated with a particular occupation where apprenticeships are available (Fuller & Unwin, 2009). Apprenticeship is also seen as a very good school-to-work pathway. Governments around the world are concerned with skills development, skills

shortages and skills mismatches because skills are considered essential to innovation, competitiveness and productivity (Organisation for Economic Co-operation and Development [OECD], 2014).

Skills are also considered intrinsic to social inclusion as those without skills are marginalised from work, experience lower levels of health and wellbeing and have less capacity to shape major developments in their lives (Wheelahan & Moodie, 2011).

Participation in apprenticeship is seen as one way of addressing the skills needs of individuals and companies as well as assisting countries to develop their workers.

The traditional training delivery method for apprenticeship in Australia has been a combination of formal off-the-job training delivered by an RTO – usually as a day release or block mode – and on-the-job training delivered by workplace supervisors or the employer. It also includes informal learning, which happens as a result of experience in the job. This was normally based on a three-year cycle (Knight, 2012). Recently, there have been a number of factors that have challenged and impacted on the traditional time-served delivery model, the system by which a person learning a craft or trade is instructed by a master for a set period of time under particular conditions. The main challenges have been the trade skills shortages, which have resulted in the need to accelerate completion so as industry can remain competitive (Misko, 2008).

Many of the traditional construction trade disciplines are heavily male dominated (Construction & Property Services Industry Skills Council [CPSISC], 2013). They have become, in some instances, more specialised, especially in the carpentry area. For example, there are now subcontractors that specialise in framing only, fit-out and finishing. This specialisation could challenge competency and knowledge acquisition if apprentices are not exposed to all aspects of the competencies as articulated in the

qualification. The specialisation has been brought about by how the construction sector operates in the current environment (CPSISC, 2013). While general contractors are responsible for completing construction projects, subcontractors are hired by the general contractor to work on a specific piece or element of work because they have the specialised expertise in that particular area. This area of specialised expertise could be categorised as restrictive (Fuller & Unwin, 2010b) for apprentices in the workplace as participation is likely to be restricted to a narrowly defined job role and task.

This was the reason why building and construction was chosen for this study. The research is therefore important and a timely exploration into apprenticeship and fully on-the-job training within the current apprenticeship system.

My Background in the VET System

Over the past 20 years I have held management and executive positions in public, private and not-for-profit organisations across transport, manufacturing, IT and training. These positions have enabled me to build a strong knowledge base across these sectors and I have complemented these experiences with postgraduate studies.

In a previous role as executive officer of the Highlands Local Learning Employment Network, I facilitated and brokered partnerships between education and industry, promoting educational engagement, the Victorian Certificate of Applied Learning (VCAL), vocational education and training in schools (VETiS), and skills acquisition so that young people could gain employment and, in turn, make a meaningful contribution. This is where my interest and passion for training and skills acquisition really developed and came to the fore.

I have worked for Federation University Australia, a dual-sector university, and its predecessor institutions since 2008. Since 2015, I have been in my current role as executive director of TAFE at Federation University Australia, where I have direct oversight of apprenticeship training in a significant number of disciplines, including building and construction. My interest in the particular issue is whether and or how fully on-the-job training is effective. If so, it will help determine the delivery strategy required to be implemented within our organisation to support this method of training, thereby complementing the existing blended model. I hope it will also make a contribution to broader practice and policy.

Organisations Involved in the Apprenticeship System

In this section, the organisations that play a role within the apprenticeship system are described.

Registered Training Organisations (RTOs). An RTO is an organisation that provides vocational education and training (VET) to students. Every apprentice in Australia is enrolled at an RTO to gain the relevant qualification or statement of attainment that is recognised and accepted by industry and other educational institutions throughout Australia (Australian Skills Quality Authority [ASQA], 2015). There are almost 5,000 RTOs in Australia providing training across a wide range of disciplines, including traditional trades, para-professional and professional studies, as well as pre-employment and basic skills programs.

An RTO may be a public provider – usually a technical and further education (TAFE) institute – a community-based or privately owned organisation, or an enterprise group that is providing qualifications primarily to its own workers (Smith & Keating, 2003). All

RTOs in Australia and the qualifications they are registered to deliver are listed on the training.gov.au website, which is a national register.

All RTOs must become registered through the regulatory body under whose jurisdiction they fall. The Australian Skills Quality Authority (ASQA) is the national regulator, but in a limited range of circumstances in two states, Victoria and Western Australia, the Victorian Registration and Qualifications Authority (VRQA) and the Training Accreditation Council (TAC) in Western Australia also have regulatory powers.

The RTOs employ teachers who must have vocational expertise and experience and qualification in the discipline in which they teach as well as a qualification in VET teaching. The RTO usually, but not always, delivers training from accredited training packages, which are explained later. The RTO must provide fair, flexible and reliable training and assessment services that observe national guidelines (RTO Standards) to ensure the quality and integrity of the processes (Commonwealth of Australia, 2015).

Australian Apprenticeship Support Network. Australian Apprenticeship Support Network (AASN) providers, formerly known as Australian Apprenticeship Centres (AACs), were established on 1 July 2015 and are contracted by the Australian Government to provide “one-stop-shops” for those seeking to hire apprentices. They provide assistance to employers, apprentices and training providers, market and promote Australian apprenticeships in their local areas, administer incentive payments to employers. They work with state and territory training authorities to provide an integrated service as well as establishing effective relationships with Job Services Australia providers, Group Training Organisations (GTOs), RTOs, schools and community organisations (Department of Education and Training, 2013a).

Group Training Organisations (GTOs). GTOs provide an alternative employment arrangement for Australian apprentices and employers where they can recruit potential apprentices under contract and place them with “host” employers while the apprentices undertake their training. The GTO is the employer of the apprentice and this arrangement makes it easier for those employers who might not otherwise employ an apprentice (Department of Education and Training [Cwlth], 2013b).

Employers. Employers play a critical role in apprenticeships in Australia as all apprentices must be employed. Whether they are large or small businesses, the benefits of investing in their workforce through apprenticeship enables them to train to the requirements of their business needs. Employers receive incentive payments from the government when employing an apprentice directly and meeting employment completion milestones (Choy, Bowman, Billett, Wignall, & Haukka, 2008). The construction industry has a heavy reliance on apprenticeship as a means of training its workforce (CPSISC, 2013).

Significance of the Research

Apprenticeship dates back to at least early Egyptian and Babylonian times and became common in medieval Europe (Smart, 2001). It has long been synonymous with people’s understanding of the journey that an individual takes in order to acquire the specific disciplinary and vocational knowledge, applied skills, values and processes associated with a particular occupation (Fuller & Unwin, 2009). It is also recognised as a framework for skill formation based on a set of reciprocal rights and obligations between employer and apprentice, which has been set out in an agreement or contract (Fuller & Unwin, 2009) and, in Australia, it includes other parties such as RTOs and the Australian

Apprenticeship Support Network (AASN) who establish the formal contract as described earlier (Smith, Walker, & Brennan Kemmis, 2011).

The apprenticeship model is a time-honoured approach to training that normally uses a combination of dual mode on- and off-the-job training (Mason, 2012). It is the intertwined learning and working relationship (Australian Industry Group [AIG], 2013) that makes this traditional training model unique.

The traditional dual mode model is being challenged in some industry areas, including manufacturing/engineering and construction, where some employers are seeking to train their apprentices fully on-the-job. This move towards fully on-the-job training, which began in the mid-1990s with a relaxation of the mandatory requirement to attend off-the-job training (Smart, 2001), seems to have gathered momentum since the introduction of the Competency-Based Completion system in 2006. This growth cannot be quantified as neither the Victorian Government nor the National Centre for Vocational Education Research (NCVER) keep specific data on the mode of training used for the training of apprentices; it is not flagged on the apprenticeship contract¹. It is the AASN providers who sign up the apprentices that understand and confirm anecdotally the growth in fully on-the-job training for apprentices (this was information extracted from the focus group interviews).

This research examined fully on-the-job training for apprentices in the carpentry trade, comparing it with the traditional dual mode system to determine the effectiveness of the skills acquisition within the CPC30211 Certificate III in Carpentry qualification. The

¹ The NCVER is the national professional body responsible for collecting managing, analysing and communicating research and statistics on the Australian vocational education and training (VET) sector.

research also made comparisons with apprentices engaged in the dual mode system to determine whether there are significant differences.

Thesis Questions

The main research question for the study was:

What is the perceived effectiveness of fully on-the-job training for carpentry apprenticeships?

The four sub-questions were:

1. *What are the benefits and challenges of fully on-the-job training for apprentices and employers using this mode of training?*
2. *How do the different modes of training – fully on-the-job and dual mode – compare?*
3. *How do the different participants (apprentices, employers and focus group members) view the different modes of training?*
4. *How can fully on-the-job training deal with apprentices with narrow job roles?*

Thesis Structure

This thesis contains six chapters. This chapter has set the scene and now provides an overview of the structure of the thesis.

Chapter 2 introduces the background and relevant literature drawn from a number of sources, including international and Australian studies on apprenticeship and the different frameworks.

Chapter 3 discusses the research methodology and design, including the selection of participants and ethics issues. The chapter also discusses the process undertaken to analyse the data collected.

Chapter 4 presents the findings about the experiences and opinions of the participants who were interviewed and participated in the focus groups.

Chapter 5 analyses the data collected and examines it through the lens of the main research question and the associated sub-questions.

Chapter 6 presents a conclusion and considerations for future research, future training models or policy change.

Chapter 2: Background and Literature Review

Introduction

This chapter provides background information and a review of the related literature on apprenticeship within the VET system for trade occupations. The study is specifically based in the state of Victoria, Australia, but the chapter includes national literature from Australia and other countries that have apprenticeships as part of their vocational training.

In the Australian context there appears to be very little literature regarding fully on-the-job training for apprentices. There is some literature about this mode of training for traineeships, a specific type of apprenticeship-like arrangement in different occupations, and whilst some of this literature was useful, there is a gap relating to apprenticeships, which this thesis will begin to fill.

Construction in Australia

The building and construction industry in Australia has been labelled a “boom and bust” industry very closely linked with economic cycles. “It oscillates between skill oversupply in periods of recession and skill shortage in periods of boom and thus the workforce is mobile” (Harris, Willis & Simons, 1998, p. 25).

The CPSISC (2013) states that skills needs are very dependent on the economic forecasts and fiscal outlooks, which tend to drive construction activity. Construction is a large, diverse and complex industry; in fact, it is the second-largest contributor to Australia’s gross domestic product (GDP) at 8.1 per cent and its share is only exceeded by the services industries (Department of Innovation, Industry and Science, 2016). It is made up of different business sizes, with most workers employed in very small or very large organisations, with a large proportion being self-employed.

The industry is made up of two main components – residential and commercial construction. They are radically different (CPSISC, 2013). The main difference is the design and size of the buildings. Residential buildings are smaller, using a range of different materials, whereas commercial buildings have greater infrastructure needs. Most commercial construction is concrete and steel-reinforced structures and built according to different codes and standards (CPSISC, 2013).

A large proportion of employees located in the small businesses work as, or for, a subcontractor. Many of the construction trades have become more specialised because of the nature of the construction sector and how it operates in today's environment. While general contractors are responsible for completing the construction projects, whatever they may be, subcontractors are hired by the general contractor to work on a specific piece or element of work because they have the special expertise in that particular area (CPSISC, 2013). Subcontractors usually have a small core workforce and have to compete heavily on price when working for the larger general contractors.

The building and construction industry has a heavy reliance on apprenticeship as a means of training, with a strong emphasis on trade qualifications (CPSISC, 2013). Subcontracting has implications for training because of the need to trim costs and the specialisation of particular elements of work (Harris et al., 1998). It is because of the move to fully on-the-job training and the specialisation of the construction sector that I have chosen to focus on the construction trades, and more particularly carpentry, as there has been some adoption of this form of training in carpentry and other associated trades.

Australian Apprenticeships and Traineeships

Background to apprenticeships. For centuries, apprenticeship has been the entry into working life for young people as well as a means of maintaining the skills base of many

national economies. Apprenticeships began in medieval Europe when young people lived in their masters' houses to learn trades over a period of up to seven years (Smith, 2010). Apprenticeship training has been resilient over centuries and today is an important part of many countries' VET systems (Unwin, 2008). Today, however, there are tensions, and apprenticeships are being stretched in many different ways in response to social, political and economic challenges (Fuller & Unwin, 2013).

Governments around the world are concerned with skill development. Participation in apprenticeship is seen as one way of addressing the skills needs of individuals and organisations as well as assisting countries to develop their workforce (Smith, 2010). In more recent times there have been other considerations and challenges that have impacted on apprenticeship, including constant and rapid changes in industry (albeit not uniform across industries), workplace processes and the use of technology. Technology is rapidly disrupting how we live and work – many tasks at the core of low- and medium-skill jobs are being automated (Torii & O'Connell, 2017). These rapid changes have raised the debate regarding what should be the make-up of apprenticeship or what should be incorporated in the qualifications to meet competence, and what should be the balance between theory and practice, and the time spent at the workplace (on-the-job training) and in off-the-job formal training (Fuller & Unwin, 2013).

As apprenticeship has evolved, so has research, which has been supported by national and international networks bringing together researchers, vocational educators/trainers, employers and policymakers to explore the debate and interest in understanding apprenticeship within a range of contexts. Robinson (2001) advises that international comparisons are somewhat difficult to make in the field of vocational education and training because institutional and cultural differences between countries mean that common concepts can vary quite radically from one country to another. Fuller and Unwin

(2013) describe different perspectives from leading researchers in the field, showing how apprenticeship is evolving and changing in every country, crossing boundaries of age, sector and levels of skill and knowledge, as well as examining the ability of apprenticeship to facilitate both vertical progression to higher education and horizontal progression between jobs and sectors. This shift has taken place over the course of time and the additional research focus approach taken with apprenticeship and vocational training in general. The current popularity of apprenticeships can, in some cases, be attributed to the state of the economy brought about by the global financial crisis (GFC) in 2008 and developing countries industrialising and using apprenticeship as the transition from school to work (Akkerman & Bakker, 2012).

What is an apprenticeship? An apprenticeship is described by Smith (2010) as follows:

The essential components of a formal apprenticeship are generally understood to be:

- a training regime set up by, or with the approval of governments;
- a combination of off-the-job and on-the-job training;
- the assumption of responsibility by the employer for the development of the apprentice; and
- the award of a qualification and/or licence and /or some other recognition that enables an occupation to be practiced independently once the apprenticeship is successfully completed. (p. 312)

An apprenticeship is first and foremost an employment arrangement that combines a training program to develop an individual's competency in the context of a job (AIG, 2013) in Australia. As indicated in the introduction, there are a set of regulatory requirements for Australian apprenticeships, in which the AASN brokers or manages the arrangements. Training contracts must be signed by employers, employees (or their parents if they are under the age of 18 years) and by the training provider. These contracts are registered with the relevant state or territory training authority and are monitored.

As well as having both an employer and a training provider, an apprentice must also have a training plan that outlines the qualification and units of competencies to be achieved.

The training plan is negotiated between the employer, training provider and the apprentice and clearly outlines the core and elective units containing all the competencies that need to be achieved throughout the training period as well as the details for how this will be managed (Department of Education and Training [Cwlth], 2013a). Ideally, the training plan is monitored regularly by all parties and signed off by the employer and apprentice when competence has been achieved. This process happens at regular stages but must occur at least four times per year.

Employment incentives are paid to employers by the federal government on commencement and successful completion of the apprenticeship, and the training component is funded by the relevant state or territory authority (Smith, 2007) if the apprentice meets certain eligibility requirements. These requirements for Victoria currently include the apprentice/student being able to provide:

- proof that they are an Australian citizen and proof of identity;
- details of the highest qualification they have completed or attained; and
- details of any government-subsidised training they are undertaking or have started their unique student identifier (USI) number. (Department of Education, 2016)

As the apprentice is a VET student, he or she must also satisfactorily complete a language literacy numeracy (LLN) test that uses a set of criteria commensurate with the level of the qualification they are proposing to undertake. In addition, he or she must participate in a pre-training review so the RTO can determine if the qualification is suitable and achievable for the student. These steps are part of the training requirements and not the apprenticeship system as such (Department of Education, 2016). Apprentices can also

make application for a Healthcare Card that would enable them to qualify for tuition concession from the RTO.

The Fair Work Commission (formerly Fair Work Australia), Australia's national workplace relations tribunal, takes a special interest in apprenticeships. The Commission is an independent body charged with the power to carry out a range of functions under the *Fair Work Act 2009*, including ratifying enterprise agreements, setting industrial awards and the minimum wage, and resolving disputes and unfair dismissals (Fair Work Australia, 2013).

In 2013, there was a review of all modern awards; modern awards are industry- or occupation-based minimum employment standards, usually within an industry sector. Following this review (or as part of it) applications relating to apprentices, trainees and juniors' awards were referred to the Commission for consideration. As a result, the Commission determined that due to the changes in apprenticeships, the awards should be changed and improved for apprentices. The conditions of employment for apprentices vary and therefore may be inserted into the industrial awards, including: provision for payment by employers of apprentices' excess travel costs for attendance at off-the-job training at a distant location; reimbursement by employers for training fees and textbooks; and provision that time spent by apprentices in dual-mode training be regarded as time worked for the purpose of wages, leave allowances and other related entitlements (Fair Work Australia, 2013).

Provision for competency-based wage progression is now in place. This enables an apprentice to progress to the next wage level based on the completion of competencies in addition to the traditional approach of progression on a time-served basis. For example, progression to Stage 2 occurs when 25 per cent of the total number of competencies has

been attained, or when the 12-month anniversary has been reached (full-time apprenticeships), whichever is earlier. This was also introduced into several of the modern awards, including for the construction industry (Fair Work Australia, 2013).

Apprenticeship in Australia. The apprenticeship and traineeship system is important in the Australian labour market (Smith, 2007) to assist with identified skills shortages and youth unemployment as it provides a very strong pathway for the school-to-work transition. Skills shortages exist when employers are unable to fill or have considerable difficulty in filling vacancies for an occupation, or if there are specialised skill needs in an occupation (Department of Education and Training [Cwlth], 2013a).

Apprenticeship came to Australia with the establishment of the colony of New South Wales in 1788, which adopted English law at that time relating to masters and apprentices (Ray, 2001). Apprenticeship was subject to the law at that time mainly because it involved the employment of children. The New South Wales Apprenticeship Acts of 1894 and 1901 formally introduced apprenticeship legislation into Australia and by the end of the 19th century, apprenticeship was well recognised throughout all states. These Acts established a framework of regulation that specified apprenticeships and established the rules that, with variation, were followed and administered by the other states. As Choy et al. (2008) explain:

Various trade committees representing the interests of employers and trade unions also oversaw the regulation of apprenticeships and these committees promoted the concept of “off-the-job” training and were drivers for the establishment of a technical education component, the precise nature of which varied from state to state. (p. 10)

Governments, together with employers, unions and other stakeholders, have introduced change to the traditional apprenticeship model of employment-based training to address a range of social, economic and technological issues that have shaped the world of work in

Australia (Choy et al., 2008). In reviews of employment-based training in Australia, Ray (2001) and Robinson (2001) highlighted several key drivers of change to the traditional system. They identified the need for skilled labour to be competitive in a global market influenced by technological change and industrial restructuring, which has resulted in the diversification of employment-based training to include other occupations and industry aside from the regulated trades, including small business engagement with traineeships in industry sectors such as retail, meat processing (abattoirs) and finance/business administration. There was a need for the progression of qualifications at levels lower than the traditional Certificate III (apprenticeship) for unemployed and disadvantaged youth, as well as existing workers without qualifications, and there was a demand for higher-level qualifications to meet changing technology and an increase in productivity and competitiveness.

To compensate for the ageing workforce, the need to upskill and reskill existing workers and new entrants led to the lifting of age restrictions in 1992 and access to employment-based training. “Employment-based training is now available across most occupations and in most industry sectors and at all vocational education and training (VET) qualification levels” (Choy et al., 2008, p. 10).

Historical developments in Australian apprenticeship. The major phases in the evolution of apprenticeships in Australia have occurred in response to a number of significant economic and historical events. After the First World War, apprenticeship was reduced from seven to five years (Ray, 2001). The apprenticeship system was strained during and after the Second World War because of the shortage of skilled tradesmen who were serving in the forces, and so industry resorted to the use of “dilutees” including many women (Smart, 2001). “Dilutees” was the term given to workers with a limited

range of skills that were well short of the broad skills of a qualified tradesman.

“Elevatees” were also used; these were labourers elevated to positions as fitters and machinists without registration (Inaba, 1997).

Immediately after the Second World War, Australia experienced rapid economic development. During this post-war boom, the federal government established the Commonwealth Reconstruction and Training Scheme (CRTS) to facilitate “fast track” training for the many servicemen returning from the war. This scheme demonstrated that adults could be trained as tradesmen in much shorter periods than the statutory five years that applied at that time to most school leaver apprentices, and so the time served was reduced to four years for apprenticeship (Smart, 2001).

In 1983, unemployment (particularly youth unemployment) was a major problem for the government of the day, with 604,000 people unemployed, and so the Commonwealth established a committee of inquiry under the chairmanship of Peter Kirby (Ray, 2001). The centrepiece of the committee’s report – *The Kirby Report 1985* – was the recommendation to establish a system of traineeships that would be similar but different to apprenticeships (Kirby, 1985). This important piece of reform (Knight, 2012) – the introduction of traineeships as an extension of the Australian apprenticeship model – was aimed at acting as a stepping stone or transition into primary labour market jobs in order to improve and increase broad-based work-related training.

While there are many similarities between a traineeship and an apprenticeship, a traineeship can be either a full-time or part-time employment-based training arrangement and is usually for 12 months, whereas an apprenticeship is usually for three to four years (Schofield, 2000).

This system created new education and training pathways for young people and those returning to the workforce (TAFE National Centre for Research & Development, 1985). By encouraging training in areas other than skilled trades (someone who is skilled and has recognised training in a practical sense and theoretical knowledge of a particular trade or craft) – such as clerical and business occupations, health services, retail/sales, community services, aged care and child care, as well as expanding opportunities for work-based training beyond traditional apprenticeships – youth traineeships were seen as a good alternative to the apprenticeship system (Department of Education, Employment and Workplace Relations [DEEWR], 2011). Extending the benefits of apprenticeship-like arrangements to a broader range of occupations and a broader range of participants was seen as beneficial, as apprenticeships had been confined very much to manual occupations dominated by males.

It is important to discuss traineeships within this research study as much of the literature about fully on-the-job training is focused on traineeships. Traineeships are covered under the same system as apprenticeships within the Australian system. A trainee is supervised while learning on the job and will in most cases attend off-the-job training with a training provider (Smith, Comyn, Brennan Kemmis, & Smith, 2009). In some circumstances training will be completely undertaken in the workplace and training will be completed by mutual consent between the employer, trainee and RTO when it has been determined that all competencies have been achieved by the trainee (Wood, 2004).

“User choice” arrangements, introduced in 1998, allowed an employer and their apprentice or trainee to choose the RTO to provide the formal part of the training, which enabled non-TAFE RTOs to deliver training in this market and receive government funding (NCVER, 2011). This was another significant shift that has shaped the

apprenticeship model in Australia because it provided more competition and flexibility for the employer.

Other significant influences for RTOs that have affected apprenticeships include the introduction of training packages into the VET system in the late 1990s. These were originally designed to increase trainee numbers and offer a series of stepped qualifications that would cover all workers who did not have higher qualifications (Smart, 2001). Now they cover most training in the VET system including apprenticeships and traineeships. These are discussed in full later in this chapter.

The emergence of Group Training Organisations (GTOs) to assist with the management of the risks associated with recruiting and employing apprentices and trainees, and to facilitate small-business involvement, was also significant. GTOs are an alternative employment arrangement for Australian apprentices and employers who can recruit potential and/or existing Australian apprentices under a contract and place them with host employers while they undertake their training. The GTO is the employer of the apprentice and this administratively simple arrangement is particularly attractive to small and medium-sized enterprises considering employing an apprentice when this might otherwise not be possible. “This model can create quality employment and training opportunities, provides a breadth of experience gained in a number of enterprises and flexibility to employers when they encounter light workloads” (Department of Education and Training [Cwlth], 2013b, p. 1).

The Council of Australian Governments (COAG) is the peak inter-governmental forum in Australia, consisting of the prime minister, state and territory chief ministers, and the president of the Australian Local Government Association. In 2006, COAG reached agreement on a package of measures to further transform employment-

based training and skills recognition in the national VET system (Council of Australian Governments [COAG], 2006). Again, these measures/changes were significant in ensuring employment-based training was flexible and adaptable to cater for a broad range of occupations and delivery models rather than a “one size fits all”.

Recent Developments in Apprenticeships

One of these changes was the implementation of competency-based progression and or completion (CBC) for apprentices across all industry sectors. The introduction of CBC provided substantial change to the apprenticeship system by allowing apprentices to complete their training at the time of competence. The government introduced CBC to support industry’s workforce development needs by encouraging accelerated employment-based training, especially in the trade areas due to the skills shortages, by shortening the duration of apprenticeships where competencies have been demonstrated (Choy et al., 2008).

The traditional time-served delivery model is the system by which an apprentice learning a craft or trade as instructed by a master for a set time under set conditions means that the apprentice can complete the training in less time than the traditional three to four years, as long as he or she is deemed competent by both the employer and the RTO and signed off accordingly. The rethinking of the time-based approach to training or the acceleration of apprenticeship (Callan, 2008), with the application of a genuine, competency-based progression rather than a fixed time period, was embraced and commenced in the automotive trades as a pilot by the Queensland Government in 2006 (Callan, 2008). This was in response to skills shortages and a need for more flexible approaches to training, which was supported by an AIG report produced in 2005. Various efforts to promote accelerated completion have impacted on the duration of trade apprentices since the late

1990s. The concept of accelerated apprenticeships was a cornerstone of reform under the discontinued Accelerated Australian Apprenticeship initiative from 2011 (Hargreaves, Stanwick, & Skujins, 2017). They have increased markedly since 2008 following the 2006 Queensland pilots (mentioned earlier) and expansion into other trades is now accepted. The current legislative industrial awards (modern award 2013) for apprenticeship (Fair Work Australia, 2013) allows for pay progression for apprentices based on the attainment and demonstration of an agreed grouping of skills that will assist with combating skills shortages.

Another initiative was the support of mid-career workers undertaking a traditional trade apprenticeship and people aged over 30 starting an apprenticeship at Certificate III or IV level in occupations that were in high demand. This can now be achieved through full implementation of the recognition of prior learning (RPL), where workers' existing skills and knowledge can be recognised and assessed against the competencies within the relevant qualification.

Due to deliberate planning by the commonwealth government, the institution of apprenticeship has been very strong within Australia and there has been a significant expansion in both the number of apprentices and the types of jobs that have training associated with them (Smith, 2010).

Further reforms announced by the Australian Government in response to the *Apprenticeships for the 21st Century* report completed by a panel of experts (DEEWR, 2011), and its recommendations some of which were implemented over 2012–13, included an attempt to transform the apprenticeship system in order to increase completion rates for apprentices and trainees. The main components of the reforms were national harmonisation of apprenticeship regulation rules and pathways to reduce barriers

to apprentice labour mobility and increase consistency of pathways across states and territories; streamlined support services; reducing confusion and duplication in the system; and the simplification and better targeting of the employer incentive payment programs to ensure that payments were effective and led to improved outcomes for apprentices in response to Australia's growing skills challenge.

Policy changes in 2015 did have an effect in relation to restrictions of employer incentives for certain occupations and the removal of incentives for "existing workers" who had worked for a company before starting an apprenticeship. There has been a decline in numbers recently, however, due to those policy changes in 2015, involving the reduction and in some cases removal of employer incentive payments and training payments by the states and territories (NCVER, 2018). As at 30 September 2017, there were 261,925 apprentices and trainees compared to 314,965 apprentices and trainees in March 2015, a reduction of 20.3 per cent (NCVER, 2018). This reduction in training and a perceived lack of confidence from employers has seen this worrying trend continue today.

In September 2013, a review and increase in apprentice and trainee wages and conditions by Fair Work Australia was progressively implemented over the next two years (Fair Work Australia, 2013). Aligned to the wage changes, an approach was also supported that recognised the importance of competency-based wage progression. All these initiatives were aimed at improving apprenticeship completion rates. To reflect the changing nature of the labour market, the federal government introduced program funding to support the accelerated apprenticeship package designed to deliver high-quality competency-based vocational education and training. Added to this was the national apprenticeships program, which was a multi-stakeholder initiative committed to an industry-led adult

apprenticeship project for 1,000 semi-skilled workers to gain full trade qualifications over an 18-month-period (National Apprenticeship Programs, 2011).

In 2011, a new national VET regulator, the Australian Skills Quality Authority (ASQA), was established to oversee the vocational and education and training sector to ensure nationally approved quality standards were being met. The ASQA's regulation platform is based on the standards for Registered Training Organisations (RTOs). The purpose of the standards is to articulate the requirements that an organisation must meet to become an RTO, ensure that the training products being delivered meet the requirements of training packages or VET-accredited courses, and ensure that RTOs operate ethically with due consideration of learners' and enterprises' needs (Australian Skills Quality Authority [ASQA], 2015).

Recruitment strategies for apprentices. The recruitment strategies of employers seeking to employ an apprentice are varied. Some employ a family member or family friend; and for others, opportunities arise when schools offer work experience to students participating in the related vocational education training in schools (VETiS) or school-based apprenticeship (SBA) programs. An SBA is an Australian apprenticeship that is undertaken part time while the apprentice is at school. It provides hands-on industry experience with the ability to work towards or complete a nationally recognised qualification while the apprentice completes their senior school certificate (Smith & Tuck, 2018). Employers use various methods to recruit apprentices such as direct advertising, placing a job/apprenticeship vacancy in the local press, or engaging an employment agency as well as using online agencies such as SEEK or others linked to a GTO website, or working directly with the GTO (Smith & Bush, 2018).

Another frequently used strategy is where employers work closely with TAFE institutes and recruit directly from Certificate II pre-apprenticeship courses. Pre-apprenticeships give students a set of basic skills or can improve their existing skills to help prepare them for a formal apprenticeship (Smith & Wilson, 2002). A pre-apprenticeship is usually a 400-hour course tied to a Certificate II qualification and can be delivered by a training provider or as part of the secondary school Victorian Certificate of Education (VCE) or the Victorian Certificate of Applied Learning (VCAL). This strategy has advantages as the student who has successfully completed the pre-apprenticeship course has developed and demonstrated the fundamental skills in the particular discipline area as well as this being recognised through credits within the respective Certificate III apprenticeship course (Dumbrell & Smith, 2007).

Local Learning Employment Networks

While not apprenticeship specific, Local Learning Employment Networks (LLENs) play a significant role working in the youth space by brokering partnerships between education institutions and employers. They aim to create strategic, sustainable partnerships that improve education and transition outcomes for young people (Department of Education and Training [Vic], 2018). There are 31 LLENs across the state of Victoria and their membership base consists of a range of groups and organisations that includes education and training providers, business and industry, community agencies, and parent and family organisations. They have a particular focus on young people at risk of disengaging, or who have already disengaged, from education and training and are not in meaningful employment.

These partnerships have a number of aims including increasing year 12 or equivalent attainment rates and the partners using their knowledge of the region to influence strategic

planning and broker alliances among key stakeholders to support young people to remain engaged, or re-engage, in education or training (Department of Education and Training [Vic], 2018).

LLENs are incorporated associations run by boards or committees of management that each LLEN elects. As the LLENs are located throughout Victoria and because of the composition of their membership base and their capability, they were ideal organisations to identify a range of stakeholders that would be likely to be interested in participating in the research study.

Learning in Apprenticeships

All apprenticeships in Australia involve gaining a qualification and this section examines the way apprentices are trained.

Training packages. Training packages are the vehicle for qualifications in the Australian VET program (Smith & Keating, 2003). They provide a structured and systematic inventory of nationally endorsed competency standards and qualifications for recognising and assessing skills for a specific industry, industry sector or enterprise (Misko, 2010). They were developed in the late 1990s to specify the skills and knowledge required to perform effectively in the workplace and consist of units of competency. Training packages describe how these are encompassed into nationally recognised qualifications that are aligned to the Australian Quality Framework (AQF) and industry-recognised skill sets (or part qualifications, which also have currency in the workplace).

Training Packages can contain a number of qualifications and the CPC package, which carpentry is apart is no exception with a number of the building and construction covered within. A training package has the following four necessary elements:

- Units of competency that specify the standard performance required in the workplace.
- Assessment requirements (associated with each unit of competency) that incorporate the performance criteria, which are the specific behaviours that a student should perform to properly carry out a task, and the assessment measures the level of skill competency attained.
- Packaging rules for qualifications that are consistent with the AQF (Certificate 1 to Graduate Diploma).
- Credit arrangements that specify the existing arrangements between training package qualifications and higher education in accordance with the AQF.

As part of what is known as the Australian VET reforms (Department of Education and Training [Cwlth], 2014), a new model for developing and maintaining training packages was endorsed by COAG and introduced on 1 January 2016. The change was designed to give industry a greater role in training package development. This new framework that would guide VET consist of three major entities (Department of Education and Training [Cwlth], 2017):

- The Australian Industry and Skills Committee (AISC) has been established to provide advice to the COAG Industry Skills Council to ensure that the directions taken by government ministers are informed by an industry-based perspective that is focused on the quality and relevance of training in VET.
- Industry Reference Committees (IRCs) provide the industry engagement mechanism at the centre of training-package development. They provide a conduit for industry feedback to government on industry trends and promote the VET system to employers.

- Skills Service Organisations (SSOs) are funded by the Australian Government to provide technical, operational and secretariat services to a range of IRCs to ensure the training packages offered reflect the skill requirements of the industries concerned and enable the IRCs to undertake their industry engagement and training package development and a review of their activities.

The relevant IRC responsible for the building and construction trades is the Construction, Plumbing and Service Industry Reference Committee (Department of Education and Training, 2017) and the SSO is Artibus Innovation. The specific training package is the CPC training package and the apprenticeship qualification is CPC30211 Certificate III in Carpentry. Industries, through their specific IRCs, can recommend changes to training packages if technology or work practices require enhancements or changes to competencies (CPSISC, 2013).

The initial transition to competency-based training in the late 1980s and to training packages in the late 1990s was a slow and difficult one (Smith & Keating, 2003).

Although they have now taken hold, the debate regarding the legitimacy of training packages continues. The main contention concerns the educational quality of training packages and whether they provide students with access to sufficient theoretical knowledge that underpins vocational practice (Wheelahan, 2008).

One of the major features of training packages is that they provide the flexibility for a business operating in a particular type of industry to customise the units studied by its apprentice and tailor the delivery of the package to meet the apprentice's needs. This can be achieved by the RTO carrying out a workplace audit to determine the type of work the apprentice would be undertaking on a regular basis. This would then allow for assessments in that particular work to be completed on site, evaluating the apprentice's

performance against the relevant units of competence. Normally, the remainder of the training would be undertaken off site at a training provider's premises to teach, train and assess the apprentice in the work or competencies not completed at the workplace and specific to the units of competence.

The qualification for apprenticeships in carpentry is known as CPC30211 Certificate III in Carpentry, which consists of a combination of units that are either core or elective.

Apprentices studying the Certificate III Carpentry program are required to complete 22 core units and select eight elective units from a vast range on offer. This is to enable the employer and apprentice to develop a training plan that best suits the needs of both and reflects the type of work to be carried out. Sometimes, however, this collaboration does not always occur and the employer leaves it to the RTO to choose the elective units as well as the delivery sequence and cycles. Of the 30 units of training provided, there is an extensive range of competencies to be undertaken and achieved. The extensive and broad range of core and elective units required to achieve the carpentry qualification are listed in Table 1.

Off-the-job learning. The experience of participating in dual-mode training provides apprentices with the opportunity to learn as well as work in an environment that is quite different from that experienced in the workplace. This learning environment can be in a TAFE institute or other RTO. It offers apprentices the opportunity to learn things that might be overlooked or modified on site. The off-the-job training should complement the work being carried out on the job and provide the necessary theory and knowledge as to why things are done the way they are. Vocational competence comes from the continuous interaction over time between skills practice and the underpinning knowledge and understanding (Schofield, 2000).

Table 1. List of Units within the CPC30211 Certificate III in Carpentry Qualification

Competency units	Description
Core units	
CPCCCA2002B	Use carpentry tools and equipment
CPCCCA2011A	Handle carpentry materials
CPCCCA3001A	Carry out general demolition of minor building structures
CPCCC3002A	Carry out setting out
CPCCCA3023A	Carry out levelling operations
CPCCCM1012A	Work effectively and sustainably in the construction industry
CPCCCM1013A	Plan and organise work
CPCCCM1014A	Conduct workplace communication
CPCCCM1015A	Carry out measurements and calculations
CPCCCM2001A	Read and interpret plans and specifications
CPCCCM2002A	Carry out excavation
CPCCCM2007B	Use explosive power tools
CPCCCM2008B	Erect and dismantle restricted-height scaffolding
CPCCCM2010B	Work safely at heights
CPCCCO2013A	Carry out concreting to simple forms
CPCCOHS2001A	Apply OHS requirements, policies & procedures in the construction industry
CPCCCA3003A	Install flooring systems
CPCCCA3004A	Construct wall frames
CPCCCA3005B	Construct ceiling frames
CPCCCA3006B	Erect roof trusses
CPCCC3007C	Construct pitched roofs
CPCCCA3008B	Construct eaves
Elective units	
Installation	
CPCCCA3010A	Install and replace windows and doors
CPCCCA3012A	Frame and fit wet-area fixtures
CPCCCA31013A	Install lining, panelling and moulding
CPCCCA3016A	Construct timber external stairs
Formwork construction	
CPCCCA3018A	Construct, erect and dismantle formwork for stairs and ramps
CPCCCA3109A	Erect and dismantle formwork to suspend slabs, columns, beams & walls
CPCCCA3020A	Erect and dismantle jump formwork
CPCCCA3021A	Erect and dismantle slip formwork
General electives	
BSBSMB301	Investigate micro business opportunities
BSBSMB406	Manage small-business finances
CPCCCA2003A	Erect and dismantle formwork for footings and slabs on ground
CPCCCA3009B	Construct advanced roofs
CPCCCA3011A	Refurbish timber sashes to window frames
CPCCCA3014A	Construct bulkheads
CPCCCA3015A	Assemble partitions
CPCCCA3017B	Install interior cladding
CPCCCA3022A	Install curtain walling
CPCCCM3001C	Operate elevated work platforms
CPCCSF2003A	Cut and bend materials using oxy-LPG equipment
CPCCSF2004A	Place and fix reinforcement materials
CPCCWC3003A	Install dry-wall passive fire-rated systems
RIICCM210D	Install trench support
RIIWHS202D	Enter and work in confined spaces
RIIWMG203D	Drain and de-water civil construction site

Misko (2008) and Fuller and Unwin (2010a) believe that off-the-job learning helps apprentices acquire the relevant knowledge and theory as well as providing opportunities for practical skill development in simulated workplace settings. Fuller and Unwin (2010a) further mention that off-the-job training also provides an opportunity for apprentices to meet others engaged in similar learning, which enables them to reflect on their learning away from their jobs.

Harris et al. (1998) say off-the-job training is beneficial because it enables the apprentices to develop attributes such as accuracy, offers back-up and support to on-site experiences, and the opportunity for the apprentice to broaden their knowledge and skills by offering variations to what their experience would be on-site with their employer. For off-the-job training to be successful, teachers need to keep their knowledge and vocational skills current and ensure the training is up to date and relevant, which is now an ASQA requirement for the Registered Training Organisations Training Standards (Department of Industry, 2013).

Attending TAFE or another RTO also provides the opportunity for apprentices to mix and socialise with other apprentices, who are also studying their carpentry qualification, in order to share experiences and to learn something new when ordinarily they would not be exposed to this opportunity. Depending on the size of the RTO, the apprentices may also be able to socialise with other trade apprentices outside of their own trade to discuss training and other related subjects. These experiences could be depicted as creating a community of practice where people engage in a process of collective learning (Lave & Wenger, 1991).

Workplace learning in apprenticeships. The original apprenticeships in Australia were undertaken fully on the job, “but throughout the last half of the 20th century, the provision of formal training, typically one day per week for three years, became universal and fully on-the-job apprenticeship training virtually disappeared” (NCVER, 2001, as cited in Ray, 2001, p. 33). Fully on-the-job training re-emerged under the National Employment and Training Taskforce (NETTFORCE) arrangements introduced by the Federal Labor Government in 1994–1995 (NCVER, 2001). These arrangements gave employers the ability to provide training entirely on the job in a contract of training if they wished. There has been continual growth of fully on-the-job training for apprentices since 1995 and is likely to have further increased following the introduction of training packages in the late 1990s and the introduction of the demand-driven training system in Victoria in 2010. The flexibility introduced by training packages and competency-based completion, together with the encouragement by the respective industry skills councils now IRCs (NCVER, 2011), has seen the attraction of fully work-based learning increase, especially in the apprenticeships within the construction trades.

The traditional image of the apprentice as a young school leaver being patiently trained by an expert in the craft or trade over many years does not sit easily with the image of the flexible, fast-moving and contemporary workplace (Fuller & Unwin, 2003). In their model of apprenticeship, Lave and Wenger (1991) position the apprentice (novice) on a clearly defined linear pathway in which older experts train their successors, thereby ensuring the continuation of the organisation. Elements of this model can be still found in apprenticeship programs today but is being challenged by contemporary workplace conditions, the roles and capabilities of older and younger workers, and cultures (Fuller & Unwin, 2003).

Advantages of Workplace Learning

Billett (2004) suggests that workplaces are legitimate learning environments. He goes on to say that workplaces intentionally regulate individuals' participation, arguing that it is not *ad hoc*, unstructured or informal, meaning those who control the processes regulate participation to maintain the continuity of the workplace. "This regulation is a product of cultural practice, social norms, workplace affiliations, cliques and demarcations" (p. 312).

Therefore, the opportunities provided by the workplace in terms of the activities apprentices engage in, their interactions with others, and how they elect to engage, are salient to their learning through participation in the workplace (Billett, 2004).

Harris et al. (1998) maintain that learning on the job is perceived to be more real life, contextualised, relevant and that it is the main source of an apprentice's learning. They go on to say that on-the-job learning is grounded in the real world of practice with "grounded" being linked to the common notions of being practical. It is more immediate, time-pressured, more improvised and is about understanding by seeing and doing.

Billett (2004) argues against a concept of learning as only a formal process occurring in explicitly educational settings like schools, proposing that workplaces are learning environments and workers consciously and unconsciously engage in learning while performing daily work tasks, although they may not always recognise their development in skills, knowledge and attitudes (Billett et al., 2012).

Billett (2001b) goes on to say that for many workers, perhaps most, the workplace represents the only viable location to initially learn and/or develop their vocational practice. "Describing workplaces as being informal, non-formal or unstructured learning environments are negative, imprecise and ill-focused. These descriptions do little to assist

elaborate understanding or improve the status of workplaces as learning spaces” (Billett, 2001b, p. 313).

Billett (2001b) also argues that it is imprecise and misleading to describe individuals’ engagement in work activities as being unplanned or unstructured, as they are highly structured and intentional and are often central to the work practice’s continuity.

Lave and Wenger (1991) use the term that ‘communities of practice’ and say these are important within organisational development and have considerable value/merit when thinking about working with groups. Their basic premise is that communities of practice are everywhere, formed by people who engage in a process of collective learning in a shared domain of human endeavour. In other words, they are groups of people who share concern or a passion for something they do and learn how to do it better as they interact.

According to Wenger (1998) there are three elements that are crucial in distinguishing a community of practice:

The domain. A community of practice is something more than a club of friends or a network of connections between people. It has an identity defined by a shared domain of interest; therefore, membership implies a commitment to the domain and a shared competence that distinguishes it from other people. (p. 1)

The community. In pursuing their interest in their domain, members engage in joint activities and discussions, help each other and share information. They build relationships that enable them to learn from each other. Having the same job or the same title does not make for a community of practice unless members interact and learn together. (p. 2)

The practice. Members of the community of practice are practitioners. They develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems – in short a shared practice. This takes time and sustained interaction. (p. 2)

Challenges of Workplace Learning

While workplace learning is beneficial, there are some challenges. Even Billett (2001b) acknowledges that learning through work, given the absence of written curriculum documents, could be viewed as being *ad hoc* and weak because it is inconsistent with normal teaching practices. Chan (2012) proposes that workplaces have many inherent challenges and Mullin (2013) asserts that work-based learning is not without its critics in relation to reliability and quality.

In an apprenticeship context, Fuller and Unwin (2003) and Favero (2003) argue that the likelihood of an apprentice experiencing a narrow trajectory to completion depends, at least in part, on whether workplaces have mapped the range of tasks and skills as well as having designed a program that generates opportunities to learn broadly as well as deeply. As Fuller and Unwin (2003) explain: “In companies that have not done this mapping, learning is much more *ad hoc* and haphazard and is likely to be driven by organisational expedience and in such circumstances, the status and legitimacy of the apprenticeship are weak” (p. 43). This limited experience is particularly problematic when no off-the-job training is provided.

This view is supported by Schofield (2000), whose findings on factors affecting apprenticeship training include workplace culture, personal values and beliefs and working relationships:

On-the-job training needs to be structured and planned, the work needs to be relevant, varied and challenging and experienced workmates who can act as mentors and instructors are needed. Off-the-job training must also be structured, rigorous, useful and relevant to them performing their job and have strong links with the on-the-job training and a quality induction to a firm/organisation is critical to a successful apprenticeship. (p. 13)

Moreover, according to Beckett and Hager (2002), learning is seldom, if ever, the main aim of workplace activities. Although much of informal learning can be viewed as increasing the knowledge capital of an organisation or enterprise, workplace activities usually have more direct aims such as meeting the clients' needs, fulfilling a contract or generating commercial outcomes. Vaughan, Gardiner and Eyre (2012) state that with on-the-job learning there is always tension between the learning and the commercial environment: on the one hand, the employer is focused on providing services to customers, building their business and earning a good living from the labour of their employees. On the other hand, the employer has committed to training an apprentice, ought to provide an environment where training can take place.

Fuller and Unwin (2003) argue that the nature and meaning of apprenticeship varies greatly according to the organisational context and the social and pedagogical relationships between participants. It is important that the apprentice has access to, and participates in, a wide range of learning opportunities, which is crucial if apprentices are to develop the skills and knowledge that will enable them to progress within and beyond their current workplace.

Fuller and Unwin (2013) suggest that "expansive" and "restrictive" characterisations provide a helpful way of analysing the learning environments in workplaces in apprenticeships. An expansive environment will create a stronger and richer learning environment compared to those that have features associated with a restrictive environment. Fuller and Unwin (2013) have documented their continuum between an expansive and restricted conception of apprenticeship, which is provided in Table 2.

Table 2. The Expansive–Restrictive Framework



Expansive	Restrictive
Apprenticeship is used as a vehicle for aligning the goals of developing the individual and organisational capability.	Apprenticeship is used to tailor individual capability to organisational need.
Workplace and provider share a post-apprenticeship vision: progression for career.	Post-Apprenticeship vision: static for job.
Apprentice has dual status as learner and employee: explicit recognition of, and support for, apprentice’s status as a learner.	Status as employee dominates: status as learner restricted to minimum required to meet Apprenticeship Framework.
Apprentice makes a gradual transition to productive worker and expertise in occupational field.	Fast transition to productive worker with limited knowledge of occupational field; or existing, already productive, workers as apprentices with minimal development.
Apprentice is treated as a member of an occupational and workplace community with access to the community’s rules, history, knowledge and practical expertise.	Apprentice treated as extra pair of hands who only needs access to limited knowledge and skills to perform job.
Apprentice participates in different communities of practice inside and outside the workplace.	Participation restricted to narrowly defined job role and work station.
Workplace maps everyday work tasks against qualification requirements – qualification valued as adds extra skills and knowledge to immediate jobs requirements.	Weak relationship between workplace tasks and qualifications – no recognition for skills and knowledge acquired beyond immediate work tasks.
Qualifications develop knowledge for progression to next level and platform for further education.	Qualifications accredit limited range of on the job competencies.
Apprentice has planned time off the job for study and to gain wider perspective.	Off the job simply a minor extension of on the job.
Apprentice’s existing skills and knowledge recognised and valued and used as platform for new learning.	Apprentices regarded as “blank sheets” or “empty vessels”.
Apprentice’s progress closely monitored and involves regular constructive feedback from a range of employer and provider personnel who take a holistic approach.	Apprentice’s progress monitored for job performance with limited feedback – provider involvement restricted to formal assessments for qualifications unrelated to job performance.

Source: Adapted from “Creating and Supporting Expansive Apprenticeships: A Guide for Employers, Training Providers and Colleges of Further Education”, by A. Fuller and L. Unwin, 2010, p. 7, London, UK: National Apprenticeship Service.

Fuller & Unwin (2010a) explain that at one end (the expansive) “the employer creates environments that make full use of the employees’ capabilities and a chance to demonstrate their potential. At the other end of the continuum (the restrictive) the focus is on trying to perform a particular job, become productive workers and gain the related qualification” (p. 6).

The expansive end is about making the most of each apprentice’s potential, engaging them, growing and nurturing the apprentice’s personal attributes as well as individual and organisational expertise (Fuller & Unwin, 2008). So, it appears that the strength of employment-based training, in pedagogical terms, lies in the provision of learning in the workplace, which complements experiences in educational institutions (Choy et al., 2008). As Choy et al. (2008) say: “Future employment-based training models are likely to be shaped by the employer and government imperatives associated with recurring cycles of skills shortages or unemployment” (p. 17).

Challenges of fully on-the-job training. Schofield (2000) says, in relation to traineeships:

Employers are attracted to the fully on-the-job model as it provides them with a subsidised employee who is on work duties for a full working week rather than being withdrawn from work for facilitated structured training and shifts the onus of allocating time to achieve competence from the employer to the apprentice. (p. 61)

Employers are looking for more time for on-the-job training, thereby marginalising the off-the-job component of training and therefore skill development (Choy et al., 2008). If this is a continuing trend, it aligns with Fuller and Unwin’s restrictive part of their continuum framework by narrowing the learning activities in terms of tasks and knowledge, which would result in a restricted range of skills. From a government, individual and, more particularly, an industry perspective, this would not be the ideal outcome to drive workforce development.

NCVER (2001) identifies that there has been controversy about fully on-the-job training since its re-emergence in 1994–95. Dunn and Jacobson (2001) spoke of the lack of quality control in the VET system and that the potential for inconsistency remained. They referred to the Senate Inquiry into the Quality of VET in Australia (Parliament of Australia, 2000), which recommends that there should be no Commonwealth funding for fully on-the-job apprenticeships as there were found to be serious deficiencies in on-the-job training in Australia. The Senate Inquiry report stated that “the Committee is convinced that there are deficiencies including inadequate content, poor training delivery, and, on occasion, the absence of training at all” (Parliament of Australia, 2000, p. 30). The report went on to say that national data regarding fully on-the-job training did not exist. “Part of the difficulty has stemmed from the fact that definitions of what constitutes fully on-the-job training are ambiguous and problematic. Estimates based on deriving numbers indirectly or from small samples, or from judgements and beliefs of those working in the system differ considerably, prevent any clear national estimate from being calculated” (NCVER, 2001, p. 78).

Chapter Summary

The literature reviewed in this chapter has indicated that apprenticeship has been a long-established approach to training, where an individual acquires specific disciplinary and vocational knowledge, applied skills, values and processes associated with a particular occupation.

Over time the traditional apprenticeship model in Australia has been challenged and has changed in response to social, political, technological and economic challenges. These challenges have included the need for continued skilled labour in Australia to be competitive in a global market; new and emerging occupations as a result of industry

restructuring; and a tool to combat unemployment, especially youth unemployment.

Consequently, traineeships and accelerated employment-based training to offset and overcome major skills shortages in a number of key areas were introduced.

Apprenticeship has also been identified as a very strong pathway from school to work, improving and increasing work-related training.

The building and construction industry is a large, diverse and complex sector that makes a significant contribution to Australia's GDP. It is composed of very small or very large businesses. The industry has a heavy reliance on apprenticeships to supply a trained workforce.

The introduction of training packages and competency-based completion has provided industry with the flexibility to customise the delivery of the training to meet their needs and be reflective of the type of work to be carried out. It has also enabled the apprentice to complete their training when they are deemed competent by both the employer and the contracted RTO and finish under an accelerated model rather than the traditional time-served model.

There are differing views and tensions between the learning quality of fully on-the-job training and the motivations for such training. Some strongly support the notion that the benefits of work-based training, establishing their workplaces as rich learning resources, in both a formal and informal sense, where employees learn while performing daily work tasks (Billett, 2004). This practice applies to apprentices who learn by seeing and doing until they achieve competency. Others have maintained that this approach is not enough, arguing that work-based learning needs to be complemented with off-the-job training to supplement the theories and competencies not provided at work. If on-the-job learning and the workplace features were similar to those identified by Fuller and Unwin (2010a)

as being workplaces offering restrictive approaches to learning, the lack of off-the-job training could be problematic. This could be the case with those apprentices employed by subcontractors who specialise and therefore the breadth of skills on offer to the apprentices could be considered as narrow and restrictive.

Beckett and Hager (2002) point out that workplace activities usually have the more direct aims of meeting clients' needs, fulfilling contracts or generating commercial outcomes rather than being conducive to learning. Schofield (2000) argues that employers are more attracted to fully on-the-job training for their apprentices as it provides them with subsidised employees who work full time without leaving the worksite for structured training. This supports the view that work-based learning is not without its critics in relation to reliability, structure and quality.

Harris et al. (1998) recount the importance of how both on-the-job and off-the-job training needs to be structured to secure the best outcome for the apprentice. If this is not the case and an ad-hoc approach is taken, then the messages to the apprentice can be contradictory and sometimes in conflict. Both methods of training are legitimate and necessary and both have their advantages and disadvantages, but both need each other for balanced apprenticeship learning.

In the carpentry apprenticeship qualification there are a large number of units of competency. The question must be asked whether the required competency can be achieved within a fully on-the-job environment, especially if the workplace were unstructured, restrictive and did not offer all the types of work that are necessary to complete the units in the qualification.

Chapter 3 details the methodology used in this research study into the experiences of apprentices and employers engaged in fully on-the-job training, including the limitations and the ethical issues associated with the research.

Chapter 3: Research Method

Chapter Overview

This chapter outlines the theoretical framework that underpinned my research and the methodology I chose to use. Because of my job role it was not appropriate to conduct any interviews in Ballarat and the surrounding district. I, therefore, had to identify other regions that would provide a sufficient number of participants to ensure my study's findings would be valid. After some deliberation, I chose the Gippsland and Bendigo regional areas in Victoria as they were active in the building and construction sector, with a number of apprentices and RTOs involved in fully on-the-job training and others that used the dual mode of delivering training. The main method of data collection was from interviews with both apprentices and employers and focus group interviews with key stakeholders. The research was carried out over the period between November 2014 and May 2017.

Theoretical Framework

The literature examined to date has indicated that apprenticeship is a well-respected method of learning at work. Apprenticeship has been heavily scrutinised and reformed in many countries in recent times in response to a number of challenges that impact apprenticeship, including constant and rapid changes in industry (albeit not uniform across industries); workplace processes; and the use of technology, equipment and construction techniques. Figure 1 is a conceptual diagram that has been developed to depict the challenges and the complexities that are involved in the Australian VET training sector. These complexities are experienced by employers/industry, apprentices and their parents who all participate in the system.

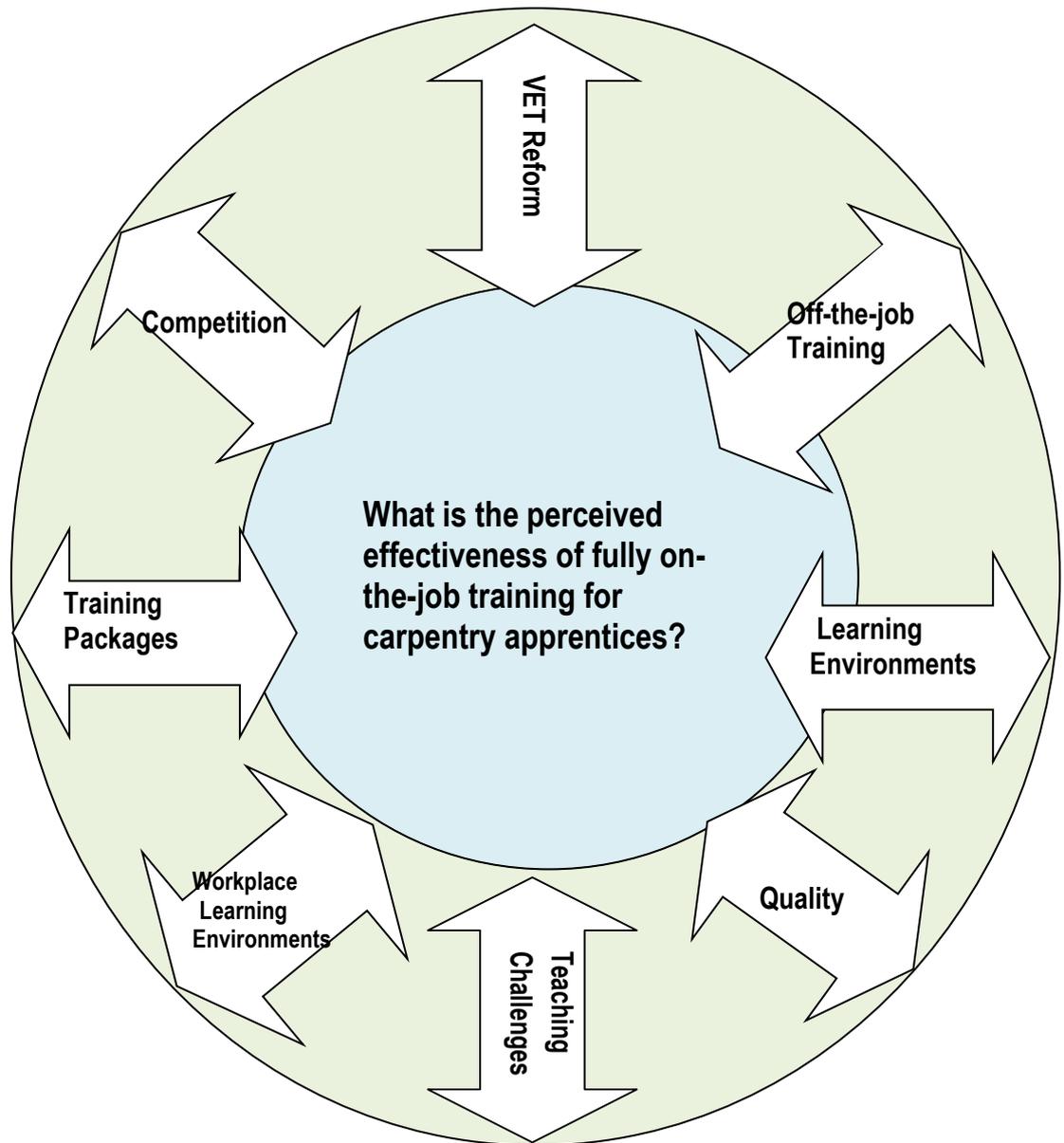


Figure 1. Conceptual framework.

The conceptual framework indicates the complexities of the Australian VET system and the pressures that exist. It places training at the centre surrounded by the demands of the VET market place depicting industry and jobs. At any given time, one factor, or sometimes more, is at work concurrently making it difficult for employers, parents and apprentices to navigate. At times there can be push-and-pull tensions that can impact on the training and produce adverse effects.

Research Questions

The research study examined both fully on-the-job and dual-mode apprenticeships to answer the following question:

What is the perceived effectiveness of fully on-the-job training for carpentry apprenticeships?

The sub-questions are:

1. *What are the benefits and challenges of fully on-the-job training for apprentices and employers using this mode of training?*
2. *How do the different modes of training – fully on-the-job and dual mode – compare?*
3. *How do the different participants (apprentices, employers and focus group members) view the different modes of training?*
4. *How can fully on-the-job training deal with apprentices with narrow job roles?*

Research Approach

This research study was approached from an interpretive perspective, drawing from the constructivist paradigm. This theoretical framework was underpinned by the assumption that meaning is constructed by humans as they engage with the world; people are born into a world of meaning (our history and culture); and the generation of meaning is always social (Crotty, 1998). Learning is an active process where beginners learn through engaging with the world. It is a social activity and is intimately associated with the connection to other human beings and involves language as the use of language influences learning (Kim, 2001).

My topic was an exploration of training models that focused primarily on fully on-the-job apprenticeship training in order to obtain a greater understanding of the application of such training and compare it to the dual-mode training model. As the research required field investigation where participants experienced the issues and the activity under study, my research study utilised a qualitative research methodology to analyse the findings.

Davies (2007) suggests a number of qualitative procedures that could be used to produce relevant and trustworthy data. This includes *focus groups* – a relevant group of people interviewed to gain information and data concerning a particular topic; a *longitudinal study* – a correlational study that involves repeated observations of the same variables over a long period of time; *interviews* – sampling interviewing that enables a conclusion to be specific to the sample but gives explanatory information; *observations* – where one observes behaviours in a natural setting to gain information and *case studies* – the rounded portrayal of an identified subject that can be examined and reviewed.

Crotty (1998) encourages qualitative researchers to think logically and clearly about the decision-making process for their research and proposes a framework that comprises four basic elements to assist in developing research design: “methods, methodology, theoretical perspective and epistemology” (p. 2).

The four elements are explained as follows:

Methods: the techniques or procedures used to gather and analyse data related to the research question or hypothesis.

Methodology: the strategy, plan of action or process design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes.

Theoretical perspective: the philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria.

Epistemology: the theory of knowledge embedded in the theoretical perspective and thereby in the methodology. (Crotty, 1998, p. 3)

Crotty (1998) argues that a structured but broad approach is necessary to assist and allow researchers to make sense of the vast number of research approaches that exist. He provides representative examples for each category that might be used under each of the four elements to assist with the research (see Table 3).

Table 3. Representative Sampling

Epistemology	Theoretical perspectives	Methodology	Methods
Objectivism	Positivism (and post-positivism)	Experimental research	Sampling
Constructionism	Interpretivism	Survey research	Measurement and scaling
Subjectivism (and their variants)	Symbolic interactionism	Ethnography	Questionnaire
Etc.	Phenomenology	Phenomenology research	Observation
	Hermeneutics	Grounded Theory	Participant
	Critical inquiry	Heuristic inquiry	Non-participant
	Feminism	Action research	Interview
	Postmodernism	Discourse analysis	Focus group
	Etc.	Feminist standpoint research	Case study
		Etc.	Life history
			Narrative
			Visual ethnographic methods
			Statistical analysis
			Data reduction
			Theme identification
			Comparative analysis
			Cognitive mapping
			Interpretive methods
			Document analysis
			Content analysis
			Conversation analysis

Note: Adapted from “The Foundation of Social Research: Meaning and Perspective in the Research Process”, by M. Crotty, 1998, p. 5, London, UK: Sage Publications.

Figure 2 depicts Crotty's four elements (1998), which I have used as a guide for my research framework. Using the four elements and drawing from Table 1, my theoretical framework is as follows:

- Epistemology – Constructivism
- Theoretical perspective – Interpretivism
- Methodology – Qualitative
- Methods – Interviews, focus group/s

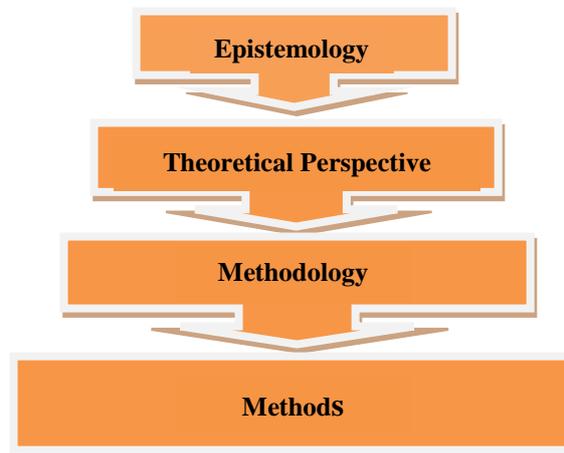


Figure 2. Four elements of Crotty's research design framework. Adapted from "The Foundation of Social Research: Meaning and Perspective in the Research Process", by M. Crotty, 1998, p. 4, London, UK: Sage Publications.

The first element of Crotty's (1998) theory is epistemology. He asserts the constructivist paradigm considers that meaning comes into existence in and out of our engagements with the realities in our world. "Meaning is not discovered but constructed and in this understanding of knowledge, it is clear that different people may construct meaning in different ways" (pp. 8–9).

Lave and Wenger (1991) assert that society's practical knowledge is situated in the relationship between practitioners, their practice and the social organisation and practical economy of communities of practice. Social constructivist approaches can include peer collaboration, cognitive apprenticeships, problem-based instruction, webquest, anchored instruction and other methods that involve learning with others (Kim, 2001). In research, Creswell (2009) holds a view that the constructivist approach considers the context in which people live and work in order to understand historical and cultural settings of the participants.

The second element of the framework is the theoretical perspective. This relates to the underlying assumption about the researcher's view of the world and the social construct within that world (Crotty, 1998). Representing a constructivist epistemology and aligned to the nature of my research questions, I used an interpretivist approach as it tries to make sense of the research participants' meaning. The constructivist/interpretivist researcher tends to rely on the participants' views of the situation being studied (Creswell, 2009). Interviewing individual apprentices, their employers and focus group members and the face-to-face involvement establishes the ability to create an environment where a participant can, as an individual or as part of a group, speak freely and be able to offer a full range of responses that are related to the research subject.

Making the questions open-ended helps the participants to construct the meaning of the situation and what they do in their life settings. This type of inquiry makes an interpretation of what the researcher hears, sees and understands. The interpretations cannot, in most cases, be separated from the researcher's own beliefs and background and will therefore shape the interpretation of the data (Creswell, 2009). Re-focusing on the research question and the meaning that the participants convey, and revisiting these at regular intervals deepens the researcher's interpretation.

The third element in Figure 2 is the research methodology, which is the strategy or action plan to be used (Crotty, 1998). The description of the methodology provides for the choice of and rationale for the particular methods used, and shapes the way they are employed. Crotty says “qualitative, methodology seeks to uncover meanings and perceptions on the part of people participating in the research, viewing these understandings against a backdrop of the people’s overall worldwide view or “culture”, which enables the researcher to see things from the perspective of the participants” (Crotty, 1998, p. 7).

The fourth element in Figure 2 refers to the specific methods used in the data collection, which Crotty (1998) defines as the “techniques or procedures used to gather or analyse data related to the research question or hypothesis” (p. 3.). Qualitative research is dynamic and interactive (Davies, 2007) and has appeal because of the face-to-face involvement, and so that is why interviews and focus groups were selected, as I believed these qualitative methods would be an effective way of obtaining the experiences, opinions and perceptions of the participants.

Creswell (2009) states that individuals develop subjective meanings of their experiences, which can be varied and multiple, and can lead to a complexity of views. Interviews extract the participants’ views of a particular situation. The questions need to be broad and general so that the participants can construct the meaning of the situation, which is typically formed in the discussions. In relatively open-ended questioning, participants will divulge what they do in their settings, and be able to share their views, experiences and feelings.

Corbin and Morse (2003) say people tell their stories to be heard. By exploring the individual or situational perspectives of the interviewees (apprentices, employers and

other relevant stakeholders), an in-depth understanding of personal feelings, opinions and experiences of a particular phenomenon can be gained (Knox & Burkard, 2009). These views, experiences and feelings are not simply imprinted on individuals but are formed through interactions with others and through cultural norms (social constructivism) that operate in individuals' lives (Creswell, 2009).

Ethical Issues and Approvals

This study relied on interviews with a number of different participant groups and focus groups. The study was approved by Federation University Australia's Human Research Ethics Committee prior to the study commencing on 23 May 2014 (see Appendix A).

Each interviewee was informed of the process and conditions, which included:

1. Confidentiality – they would remain anonymous or de-identified with their names converted to a code or a pseudonym. The data collected would be transcribed but it would be viewed only by myself and that the data would be kept safe and secure at all times.
2. Plain Language Information Statement – the statement was distributed to each participant with a full explanation outlining the research project.
3. Consent Form – each participant was asked to read and then complete and sign the consent form. Each participant was also informed that they could withdraw their consent and data at any time without recrimination or questioning.

Appendix B contains a copy of the Plain Language Information Statement and

Appendix C contains a copy of the consent form.

Matters that needed consideration or assurance included confidentiality (personal disclosure) and anonymity (personal privacy) of the participants used in the various settings, especially at the data and writing-up stage of the findings. The questions used for the interviews were designed to not be offensive or alienate the participants and intellectual property together with gender, ethnicity, culture and participant vulnerability, was also to be a consideration. It was also important that the interviews with the employers/supervisors, apprentices and focus-group participants were conducted in a way that avoided directing, prompting or influencing their behaviour into certain actions or decisions (power relationships).

I also complied with the conflict-of-interest rules of not involving any students, staff or employers in this study from my current organisation or region.

I gave an assurance that all the data, transcripts and associated documents relating to the study would be safely secured to avoid any possible privacy breaches in relation to the study participants. Finally, I undertook the responsibility to minimise the possibility that the results generated were not false or misleading (O'Leary, 2004).

Research Method

The research was carried out in two stages during 2014 and 2015. Stage 1 was divided into three specific areas:

1. Interviews with apprentices who were engaged in fully on-the-job training.
2. Interviews with employers using fully on-the-job training.
3. Focus groups with stakeholders in the apprenticeship system.

Whilst the main aim of the research was to examine the fully on-the-job training, some apprentices and their employers engaged in the dual-mode training model were also examined to enable a comparison to be drawn with dual-mode training at a training provider. The dual-mode apprentice group was identified using the same method as the fully on-the-job apprentices and interviewed under the same conditions. These interviews were carried out at a later stage than the original fully on-the-job interviews. The questions asked of the dual-mode apprentices differed a little from the questions for those engaged in fully on-the-job training and were more relevant to their dual-mode training and delivery.

Stage 2 involved further telephone interviews with the apprentices – six to nine months following the initial face-to-face interview.

Stage 1 – Employers and apprentices in fully on-the-job training. Initially, it was difficult to identify apprentices and employers who were willing to participate in the study. Numerous construction companies in the Melbourne metropolitan area were approached as well as in a number of Victorian regional areas. This was further complicated as I could not interview anyone in my own regional area due to ethics. Finally, a group of employers and apprentices engaged in fully on-the-job training was identified through an Australian apprenticeship support network located in a town in Gippsland. The AASN kept details on the training delivery modes identified through the training contracts they had negotiated with employers and apprentices.

Verbal contact by phone was then followed up and formalised in writing, which outlined my research project. The AASN agreed to assist and contacted a number of their clients who met the fully on-the-job criterion to obtain permission for them to pass on their details so I could make contact and set up dates and times to meet. I received a contact list

containing six different employers who had a number of apprentices under their stewardship and two employers and three apprentices agreed to be interviewed (see Table 4).

The interview questions (see Appendix D) were exploratory and were developed and constructed following conversations with various carpentry teachers, people from the construction industry, the literature and also my own thoughts. The factors considered when constructing the questions for the apprentices and for the employers were:

- Benefits of fully on-the-job training:
 - Real work in actual application
 - The non-requirement of the apprentice having to dismantle a/the project at completion of training and assessment that occurs in the simulated environment
 - Tyranny of distance and travel time for the RTO to observe, train and assess apprentices
 - Underpinning theories and knowledge tests and whether calculations and formulas are passed on or exchanged by an employer prior to the work commencing or during the work
 - The apprentice is trained the way the employer wants without question
 - The apprentice may be more comfortable in familiar surroundings with their employer nearby to support them
 - OH&S procedures of a workplace, which could be positive or negative
- Advantages of off-the-job training at an RTO or training centre:
 - Assessment attempts can be conducted without fear of reprisal (material costs can be a factor on site with assessment failure)

- Apprentices can be exposed to broader thinking and different techniques if away from the worksite
- Simulation and a variety of work can be carried out and be advantageous if this work is not done on the worksite at all
- Calculations and literacy can be improved in an off-the-job setting (more available support)
- Network opportunities if exposed to other apprentices in training

The first round of the fully on-the-job interviews took place in late November 2014 and early 2015 in three regional settings in Gippsland (see Table 4). Each interview was a face-to-face encounter, between 45 minutes to one hour in duration, and was recorded with the interviewee's permission to ensure an accurate transcription could be produced. A few handwritten summary notes were also taken to identify any particular points. The notes enabled me to revisit and target those interesting points raised by the participants.

The second cohort of employers and apprentices who were engaged in dual-mode training was identified through the local TAFE institute servicing the Gippsland region. The institute contacted the employers that were sending their apprentices to it for training and obtained permission from them for me to access their contact details to set up dates and times for interviews. Again, the approach to the institute was formalised in writing. After initial contact was made from an extensive list of employers and apprentices, consent was gained from two employers and five apprentices who agreed to be interviewed (refer Table 4).

Their question bank was modified from the fully on-the-job group but still framed with regard to the considerations outlined previously. These interviews took place in late October 2016 in a Gippsland regional centre. Of the apprentices in the fully on-the-job

group, one was a mature-aged apprentice whereas the other two were younger (less than 25 years old) apprentices. All three apprentices were studying the CPC30211 - Certificate III in Carpentry qualification.

Table 4 presents a profile of the apprentices and employers who were interviewed in both cohorts. All apprentices and employers were male and were assigned pseudonyms.

Table 4. Employers and Apprentices Interviewed

Group	Company (pseudonym)	Employer (pseudonym)	Apprentice (pseudonym)	Second apprentice interviews
Fully on-the-job	ABC Homes	Peter	Jack (2nd Year) Steve (3rd Year)	Jack Steve
Fully on-the-job	XYZ Pty Ltd	David	Len (1st Year)	Len
Dual mode	Wills Homes		Brad (1st Year)	Brad
Dual mode	Mac Homes		Ben (2nd Year)	
Dual mode	DDD Pty Ltd	Chad	John (3rd Year)	John
Dual mode	All In Builders		Jock (2nd Year)	Jock
Dual mode	TTT Homes	Tom	Stewart (4th Year)	

Stage 1 – Focus groups. Focus groups have traditionally been employed to elicit information, thoughts and feelings from the participants on a certain topic or range of questions (Davies, 2007). They provide the vehicle to introduce your research questions and prompt the group members in their deliberations, which enables the researcher to throw more light on the key issues and the opinions that are emerging (Davies, 2007). Davies (2007) states that focus groups can provide benefits for research, with the group members giving opinions that can be used to further illustrate the analysis of the research questions.

The Gippsland focus group participants were recruited through the local LLEN group.

Four participants were engaged and were from a LLEN, RTO and a GTO (see Table 5).

Table 5. Gippsland Focus Group

Participant (pseudonym)	Job role	Type of organisation
Kate	Apprentice support officer	GTO
Simon	VET teacher	GTO
Scott	VET teacher	RTO
Matthew	Executive officer	LLEN

The members of the focus group were interviewed using the focus-group questions as prompts. The participants from these organisations offered valuable information on the fully on-the-job training as many were directly involved with the process including sign-up, training and support of the apprentices.

To gain a broader perspective, I decided to carry out an additional focus group session in another regional area and decided that the Bendigo region was ideal. Again, the Local Learning Employment Network was used to assist with the recruitment of stakeholders. The focus-group participants numbered 10 and were drawn from an industry association, a GTO, an industry peak body, an AASN, two local employers, two LLENs, and two RTOs. Some of these participants supervised the fully on-the-job training model (see Table 6).

The interview questions were framed around each participant's understanding of apprenticeship training in conjunction with their own organisation's input/s, and also their involvement or exposure working in the sector (see Appendix D). The interview questions used for both focus groups were the same. They were open ended to encourage discussion, but the sessions were reasonably structured to ensure the quality of information obtained as well as being time-economic (see Appendix D). It was important to create an informal atmosphere where participants felt comfortable and confident in contributing to the discussions in both the one-on-one interviews and the focus groups

(Davies, 2007). The focus groups were structured and managed to ensure particular participants did not dominate the proceedings and the sessions were recorded using audio equipment with the permission of the participants.

Table 6. Bendigo Focus Group

Participant (pseudonym)	Job role	Type of organisation
Owen	Training manager	Construction Industry Association
Ron	Owner operator	Employer
Steve	Structured workplace learning officer	LLEN
Dianne	Employment consultant	AASN
Faye	Business development officer	AASN
Reg	Chief executive	Private RTO
James	Industry consultant	Industry Peak Body
Angelia	Executive officer	LLEN
Ken	VET teacher	RTO
Mitch	Owner manager	Employer

Stage 2 – Fully on-the-job-apprentice follow-up interviews. Stage 2 involved re-interviewing six of the original eight apprentices (see Table 4) from Stage 1 following an interval of between six and nine months. The rationale was that the apprentices would have progressed from the cycle of competency-based completion (CBC) in which they were working when first interviewed to the next cycle. If the apprentices were new and in their first cycle of CBC when they were first interviewed, they would have been expected to have matured a little since then, be more familiar with the daily tasks and work duties they were required to carry out, be able to put more context around their on-the-job training, and would no doubt feel differently about their work than they did in the initial interviews. The three fully on-the-job apprentices – Jack, Steve and Len – were

interviewed for the second time. From the dual-mode group of off-the-job training apprentices, three of the five agreed to a second interview.

All the data gathered was transcribed and analysed. Initial analysis focused on the apprentice data and employer data, in particular, to see if there were any emerging themes and/or trends. This information was then compared with the data from the focus groups of stakeholders to see whether any other themes or trends had emerged.

Limitations of the Research Method

There are limitations with any approach used (Miles, Huberman, & Saldana, 2014). The weaknesses of the interview approach include problems of reliability (subjectivity), risk of collecting irrelevant data by not controlling the interview sessions and letting them run off on a tangent. This can be partly addressed by using a well-structured set of questions and objectivity about my own beliefs and personal stance around the research topic. As the construction industry is a heavily male-dominated industry, another potential limitation was the issue of young males by virtue of their gender not always liking to disclose any difficulties or problems they might be experiencing and therefore the data collected could be of limited value. It took a lot of work and persistence with some of these young males who were not very talkative to open up and give their views on their employment and training. It was a matter of making the apprentices feel comfortable and at ease and being confident in the interview approach with them (Davies, 2007). In order to address these weaknesses, it was important to build confidence and rapport with the apprentices quite quickly in the one-on-one interviews so that they felt confident in providing open and honest answers. This was done by conducting the interview like a natural conversation at a steady pace, allowing the apprentice to direct its tempo (Davies, 2007).

One of the limitations identified was the small number of fully on-the-job apprentices and employers that could be accessed for the study. However, the data obtained from the small number of participants was rich and was triangulated with the data from the focus groups. The use of triangulation as a form of confirmation and validation through the convergence of information from different sources (Stake, 2010) assisted in reaching the findings of this research study.

Davies (2007) suggests carrying out a pilot study once the research instruments are developed. Trialling questions gives the researcher the opportunity to refine them, and the ability to practise open-ended, semi-structured or structured prompts instils a sense of greater confidence in the material to be used. I arranged and conducted a pilot with a group of colleagues, where I conducted individual one-on-one interviews with them that would be similar to the ones I proposed to conduct with the employers before undertaking the main data gathering and fieldwork stage. The test run with my colleagues presented me with the opportunity to trial my questions to see if they would be effective in eliciting useful data from the interviewees as well as enabling me to rehearse my interviewing techniques and build confidence in the researcher role or determine whether some refinements were necessary. Some minor tweaking of a few of the questions was necessary following the pilot to ensure the actual interviews would be robust and productive.

Davies (2007) claims that qualitative research is different from other forms of research. It is special in nature because of the need to explore the respondents' interactions, their feelings and perspectives of their situation, which is vital when drawing conclusions from the questions. To assist with the analysis of the data obtained and captured on the audio tapes, transcriptions were professionally produced as soon as each interview session had been completed. The transcription process helped me to remember or decipher aspects of

the conversations while they were still fresh in my memory. Once all the interviews had been concluded and the transcripts produced, the latter were then scrutinised to determine the links, trends and themes between the interviewees.

Data Analysis Process

Qualitative data is a source of rich, well-grounded descriptions and explanations of human processes that can identify the events that have led to certain consequences as well as enable fruitful explanations to be derived (Miles et al., 2014). In the initial stages of my analysis, I read and re-read my transcripts to refresh my memory. I then looked at my summary notes of each interview (they were scant but at times helpful notes) to also assist in recalling my account of each interview.

Once the interview process had been completed, I developed a set of tables/spreadsheets that detailed the questions and the corresponding responses. Comparisons could then be made and trends identified, and those trends and emergent ideas would provide the data to form the basis of a full commentary. This is known as thematic analysis (Davies, 2007).

This preparatory work helped identify any trends, themes and key words. Miles et al. (2014) describe this as coding and suggest that “coding can be undertaken in a range from a single word to a full paragraph to an entire page of text. Coding can be used to retrieve and categorise similar data chunks so the researcher can locate, cluster and construct meaning and draw conclusions” (Miles et al., 2014, p. 73). In other words, coding prompts or enables the researcher to condense data into meaningful material that comes together in recurring patterns that is helpful for data analysis.

The following approach was used. I entered the interview questions and the transcribed interview responses into a matrix. I then used additional columns to identified key words

or statements from the data to determine if any patterns were emerging. Each column was refined twice to identify responses. I did this for each group. Appendix E provides an example of what was done and the result, using a sample of the apprentice group engaged in fully on-the-job training.

The following six matrices were developed to analyse the data from the interviews with the apprentices, employers and the focus groups.

- Matrix for apprentices using fully on-the-job training
- Matrix for employers using fully on-the-job training
- Matrix for apprentices using dual-mode training
- Matrix for employers using dual-mode training
- Matrix for the Gippsland focus group
- Matrix for the Bendigo focus group

After reading through the transcripts and associated summary notes, I entered data into my matrix/spreadsheets to identify common words or phrases. These were divided up using coding (Miles et al., 2014), which categorises words and phrases and facilitates the observation of emerging patterns or themes from participants' own language. Braun and Clarke (2006) refer to this type of analysis as thematic analysis and define it as: "A method for identifying, analysing and reporting patterns within data" (p. 79). This was quite helpful to me as a first-time researcher as it steered my thoughts in answering my research question/s. By continual reflection and interrogation of the data and referring back to the questions, I was able to draw conclusions and expand on the findings that could be verified.

I also cross-referenced from matrix to matrix to identify any consistencies or differing views (see Appendix E). I was also able to compare both the apprentice groups and

employers to identify any differences so comparisons could be made. The following tables are a result of this work and highlight some of the salient points made by the respondents. This assisted me in my findings.

Tables 7–14 further analyse the data in the matrices and give a snapshot of some of the responses.

Table 7. Strengths of Fully On-The-Job Training (Apprentices)

Strength	Comments
Really good way to learn because it is hands on	It's awesome to have an overall understanding of the trade opposed to learning then pulling it down.
Getting paid as you learn	It's an incentive especially if you have had a bad day. It's your job.
I have a really good boss who shows me things	Boss doesn't go crook if you make a mistake. He says you learn from your mistakes.

Table 8. Strengths of Fully On-The-Job Training (Employers)

Strength	Comments
More focused training	The training is one on one on-site instead of getting lost in a big group like at trade school. No wasted time while at training.
No travel	No huge travel involved and the trainer comes to us. Bookwork still gets done.
Flexibility/planning	I can plan my work and sites as I know I have my apprentice with me all of the time. I don't lose them off site to training.

Table 9. Weaknesses of Fully On-The-Job Training Identified by the Focus Groups

Weaknesses	Comments
Lack of structure to training	If the trainer is not structured or a little casual, it puts a lot of trust back on the employer that the apprentice is doing the work described.
Time pressures	Apprentices and employers are under pressure to complete jobs, which can restrict training.
Lack of networking	It is really good to hear what other apprentices are doing and to share information.
Specialisation	The introduction of subcontractors who only do specific jobs restricts the apprentice from getting exposure to a broad range of work and skills.
Gaps in training	Cannot see how all the skills and knowledge can be covered and lack of theory content.

Table 10. Strengths of Dual-Mode Training (Apprentices)

Strength	Comments
Well-rounded training	I get exposed to things that we do not normally do on site such as pitch rooves, erect steel frames.
Teachers really helpful	They explain things in detail if I don't understand things. Come out on site to visit and also help with my bookwork theory. They also give good tips.
Training consistent/regular	Attend trade school three days every month.
Peer learning	I like that I have other apprentices to ask questions and talk to.

Table 11. Strengths of Dual-Mode Training (Employers)

Strength	Comments
Confident that it works	I was trained this way and think it works.
Coverage	The training covers things that I don't.
Still flexible	I know in advance when training is so I can plan around this.

Table 12. Strengths of Dual-Mode Training (Focus Groups)

Strength	Comments
Peer learning	Strength of apprentices engaging with each other and exchanging views and sharing experiences.
Coverage	The training covers things that don't get covered on the job.
Still flexible	Employers know in advance when training is so they can plan around this

Table 13. Weaknesses of Dual-Mode Training (Apprentices)

Strength	Comments
Travel to training	Lost time travelling big distances to attend off-site training. Unproductive time.
Simulation versus real training	Dislike building something only to demolish it at the end. Not real compared to on the job
Pretty casual	Feel like going to off-site training is a bit casual and a bludge from what I know. I like the real stuff.

Table 14. Weaknesses of Dual-Mode Training (Employers)

Strength	Comments
Flexibility	Work schedule affected due to apprentice off site at training.
Big groups	Apprentice can get lost in big groups. At TAFE some groups have 15 or more apprentices, so they don't get the individual attention required.
Teacher quality	Teachers at TAFE especially not exposed to the most up-to-date industry practice. Just going through the motions.

Chapter Summary

This chapter has outlined the research approach and method used to obtain the relevant data for the research, which was guided by Crotty's (1998) four basic elements that support qualitative research. The chapter has also described the rationale behind who would be involved in the study, how they were recruited and the processes used to collect the data. Thematic analysis was used to analyse or interrogate the data. Initial coding was produced using the participants' own words and phrases, which identified themes and patterns that could be collated together.

Chapter 4: Findings

Introduction

This chapter considers the findings that emerged from the research and elaborates on the experiences and the opinions of the participants interviewed. The chapter is structured to introduce and provide a brief overview of the characteristics and employment of each apprentice, whether engaged in fully on-the-job training or off-the-job training, together with discussion of their employers and the two focus groups, one in Gippsland and the other in Bendigo. The information obtained was interrogated to identify underlying themes.

Stage 1: Fully On-The-Job Training Model – Apprentices

Table 15. Fully On-The-Job Training (Apprentices)

Group	Company (pseudonym)	Employer (pseudonym)	Apprentice (pseudonym)	Second Apprentice Interviews
Fully-on-the-job	ABC Homes	Peter	Jack (2nd Year) Steve (3rd Year)	Jack Steve
Fully on-the-job	XYZ Pty Ltd	David	Len (1st Year)	Len

Characteristics of the apprentices. The three apprentices participating in the fully on-the-job training model were at different stages of their apprenticeship (see Table 15). Steve had originally completed a year of a landscaping apprenticeship (which he enjoyed) but did not see a future in this particular vocation, so he moved across to carpentry as he enjoyed the aspects of this trade that were associated with landscaping (for example, building of decks). Jack went straight from school into his apprenticeship. Len had been previously working in the IT field and was looking for a career change and something more hands on so he chose carpentry. Len was a mature-aged apprentice.

Jack and Steve were employed by XYZ Pty Ltd, a small domestic builder in the Gippsland region. Len was employed by ABC Homes, which was a reasonable-sized company that built modular pre-fabricated houses, units and granny flats.

Views about their training. Overall, the apprentices thought that the quality of their training within the workplace settings was beneficial and were satisfied with the work and support supplied by their employer. The apprentices were positive about their learning experiences due to the workplace culture that had been established by their employer/supervisor, but one apprentice, in particular, did raise some concerns about the RTO trainer and the processes.

The apprentices also acknowledged the passion their employers had for the industry, which extended into their training. A contributing factor to this passion was that the businesses that the apprentices worked for were generalists. The term “generalist” means that the businesses were not specialised and so offered the apprentice exposure to a wide range of work and learning opportunities that facilitated the development of skills and knowledge that enabled the apprentice to progress within their current workplace.

Apprentice 1 – Steve. Steve always liked hands-on work from an early age. He grew up on a farm, so he enjoyed tinkering and working on things using his hands. University had not interested him, and he had originally trained for one year as a landscape gardener, which he enjoyed but didn't really see an extensive future in this occupation.

The building industry, however, took Steve's interest after he had built a few decks as part of his landscaping apprenticeship. He attended an interview for a carpentry apprenticeship and was informed at the interview who the RTO would be and that the training would be fully on the job. In his previous landscaping apprenticeship, Steve's RTO was the local TAFE, so he had some idea of what was involved regarding the training, but fully on-the-job was a new concept. He was given a thick book, but he was not sure what it was or whether it was a training plan or not.

Steve: Early on, I never really read it properly, but it was pretty much a heap of jargon, but it did talk about titles of which I would be studying.

Steve, as a third-year apprentice approaching his fourth year, felt that he was definitely getting a better understanding from when he first started his apprenticeship.

Steve: Reading the books and doing the bookwork has been helpful, but you can never underestimate doing something physical with your hands and seeing someone doing it in front of you.

Steve explained that he had been a good student at secondary school, finishing year 12, which proved that he could study, but he felt that seeing someone do something in front of him would be very beneficial. He was certain that things done in real time were far better than reading about them in a book, and he was bullish that a book could not always tell someone how to do things.

Steve was uncertain whether anyone had explained competency-based training to him, but he assumed that it meant that once a person had understood a concept and could complete

tasks at a certain level relating to the industry, then that person would pass. His RTO representative visited once a month and this worked well in that he never had to leave the worksite. Steve's employer was extremely skilled and passionate about carpentry, and he taught Steve a lot, which was evident in the work they had carried out together.

Steve: I think there's definitely good and bad about the training, but overall I am happy.

Steve had some mates that were attending a TAFE institute to do their training, and according to him, they seemed to get a lot of time to do things.

Steve: I get a feeling it is a bit of a bludge but in saying that they also get time to learn, and they do stuff together as a group and are taught how to do things we may not touch on.

Steve felt that even though he and his employer had covered everything when building a house, he identified that there may have been gaps in his training, and it might have been interesting to try dual-mode training, but, overall, he preferred the work and fully on-the-job training. He went onto to say:

Steve: I guess you could miss out on the networks that training in a group would provide. You have your class of 15 to 20 guys that you go through your trade with. I've got mates outside of work, but I'm not sure that's the same.

He identified that things could always be improved, but he didn't think he was going too badly and advised that if he wasn't, his boss would let him know. He acknowledged that training was helping him become a builder and the hands on all the time was a bonus. He did go back to training and felt:

Steve: I think there are gaps in my training. That's a bit harsh, I suppose, but he (the trainer) just seems pretty casual. He will rock up and I'll do a questionnaire and that might be it. So you're not having anyone looking over your shoulder, making sure that you're doing everything. He has a lot of trust in that I am being honest and my supervisor is being honest. If we wanted to fudge the work, we could happily do that because there is no real checking.

Steve didn't think he would gain anything from dual-mode training but did think that trying something every now and then might work. His boss did send him to a training day to learn and obtain the necessary "tickets" for working at heights, which included learning how to operate an elevated work platform (EWP). He enjoyed this opportunity to network and speak with other tradies, find out how they did things and share relevant information.

Steve: It would be good to have a breather and to hang around with people your own age.

Apprentice 2 – Jack. Jack was somewhat like Steve in that he wanted to work with his hands. He went straight from school into his apprenticeship and had just finished his first year and was starting his second year. Jack was quite shy, so getting him to talk openly took some time and at stages his responses were quite short. His boss, Peter, had informed him that he would be trained fully on the job, and he remembered that he had been given a big thick book. He thought he could remember having had competency-based training explained to him but he had not really understood how it worked. He did know that he had been given different modules to complete that were in the big thick book and that the trainer came out about once a month to check whether he had completed them. Jack also knew that the modules also related to the work he did on site.

Jack: Just after I had started, we poured a slab. It was awesome to have an overall perception of the building industry as opposed to doing one thing. We've stopped pouring our own slabs now because we are too busy, but we do everything else.

Jack felt that he had a good relationship with Peter, and that he worked well with the other qualified tradesmen and Steve, and that the support was good. Jack had some friends and acquaintances attending other RTOs or the TAFE institute, but he could not see any advantages with the dual-mode delivery after he had spoken to them. He liked the hands-on component of his work and loved being paid to learn.

He did not have any great expectations or concepts of what building would be like as it was all new to him, but he did feel he was going reasonably well.

Jack: At the end of the day, you are learning how to build a house, so you are definitely learning. My boss wants us to care about what we do and expects a good job. I'm quite young but enjoy what I'm doing. I get a bit of stick sometimes but that's just how it is.

Jack felt that every day he worked he was learning and that he could ask Peter questions when he needed to and that work was much better than going to school. He also liked how the trainer came out to the worksite and knew what the apprentice was actually working on. Overall, Jack was confident that he would complete his apprenticeship.

Jack: I've got Peter, who teaches me occasionally, and we've got another two qualified blokes plus Steve. I'm always getting different perceptions and different ways of doing things. But overall we all work for the same company so there is an underlying "this is how you do it" because that is how Peter does it because he has been in the industry for a while. I am not sure whether we are missing anything because of that.

Apprentice 3 – Len. Len had been working in the IT field prior to signing on as an apprentice. He just basically wanted a change of career. He wanted to do something hands on and liked the idea of carpentry. He had a few friends who were builders and had done some labouring work with them and quite enjoyed it.

Len: Doing an apprenticeship was just a good way for me to tick off all the skills that I needed because I had literally no skills in carpentry before I started.

When Len was signed up for his apprenticeship his employer spoke to him about the fully on-the-job training and gave him a bit of an outline on how it would work. He remembered being given a whole lot of information that outlined the training modules that he was required to complete over his apprenticeship.

As a first year, he believed that he was learning quite a lot, but it was evident that he did not entirely understand apprenticeships and what was involved.

Len: I am learning a lot but I don't think that's through the apprenticeship so much; it is more the guys that I work with on site that are teaching me the practical things. I am a mature-aged apprentice in my first year, and I feel that the modules up until this point have been pretty useless. The safety modules have been good but all the skills and knowledge are coming through the work.

Len had not received a clear explanation on how the competency-based training worked and found little reference to any of the theory.

Len: In terms of theory, it's been like you can't do it any faster; you have to take three years and I feel like it has been an absolute waste of time.

Len had a workbook that included the different modules that needed to be completed and his trainer would come out on site, read through the answers, assess them and go over the incorrect answers. The trainer would attend every four to six weeks (not regular) depending on his availability. Len worked closely with other carpenters at XYZ Pty Ltd who were very good at showing him how to do certain things and passing on knowledge to him.

Challenges experienced by the apprentices. One of the limiting factors identified through the research was the time pressures. Steve always felt under time pressure to get things done at work. He explained that they were always busy and rushed to complete the specified work.

Steve: When you are on the job you have to get the work done, so if that means reading and doing the book work of a night that is what needs to be done.

Steve would also have liked the trainer to have spent more time with him when he visited the worksite.

Steve: I would like more time and enthusiasm from him – he just seems pretty casual, but I am not sure whether it's just him or the training organisation.

This aside, Steve was confident that he would complete his apprenticeship and stay in the building industry. On reflection, he thought that the occasional opportunity to leave the worksite and participate in some specific training with other apprentices to gain different perspectives would be beneficial.

Steve: The ability to hang out with people, pick their brains and discuss and compare how things are done opposed to being told this is how we do it would be refreshing.

This was not a specific question asked of the apprentices and it was not determined whether it applied to the other apprentices, it was a comment made by Steve at the time.

Len was happy learning the basics and the majority of work was very satisfying. Some aspects were repetitive, but this was due to the fact that the bulk of their work was building modular homes. While Len enjoyed the hands-on work, he referred to the fact that the training made very little difference to what he was doing. He always felt under pressure:

Len: Because of the pressure you are working pretty hard but probably not learning as thoroughly as you should. I think that is where training off site might have some benefits. You would actually have time to work out what you need to do and what you need to know.

Len reinforced how he enjoyed getting to work and that he would do the workbook and study at home at night. Len, like Steve, also attended a working-at-heights training session, where he mixed with other carpenters. He enjoyed the experience and opportunity to share information and experiences. The one thing Len found difficult and something that may prevent him from completing his apprenticeship was the low wage he received as a mature-aged apprentice.

Stage 1: Fully On-The-Job Training Model – Employers

Table 16. Fully On-The-Job Training (Employers)

Group	Company (pseudonym)	Employer (pseudonym)	Apprentice (pseudonym)	Second apprentice interviews
Fully-on-the-job	ABC Homes	Peter	Jack (2nd Year) Steve (3rd Year)	Jack Steve
Fully on-the-job	XYZ Pty Ltd	David	Len (1st Year)	Len

Reasons for choosing fully on-the-job training. The employers liked the model as they did not lose their apprentice from the workplace (see Table 16). They believed that they were investing in their future and the industry’s future by employing the apprentices.

Both said the following:

David: We employ them [apprentices] because obviously it’s investing in our future and investing in the industry’s future because without the apprentices, we don’t have tradesmen coming up who can fill the gaps with people retiring. It’s also, from an economical point of view, a saving on labour costs as well.

Peter: The way the company is structured unless you have apprentices and train them to be qualified, you are pricing yourself out of the market. So there is a cost component, too.

Often the employers and apprentices worked remotely, so the distance to attend off-the-job training was also a consideration. The employers compared their experiences as they had themselves trained using the traditional dual mode model, which included block or day release to attend formal training at a TAFE or training centre. They saw much more benefit in real training compared to the simulation methods used by many RTOs and TAFEs. Simulation is where the apprentices do practical components of their training – for instance, they may do sub-flooring, pitching a roof, or erecting a steel frame. These activities would be in line with ensuring that the competencies within the training unit were met. The employers also had a strong belief that apprentices wasted too much time attending off-the-job training. They felt their apprentice could feel overwhelmed and just a number in a class at a TAFE institute, whereas they were providing one-to-one training with their apprentice.

The research also identified employers' mixed perceptions and the value of TAFE, especially teacher commitment and teacher vocational currency, and they questioned TAFE's often outdated practices and methods. This appeared to be a carryover from their own experiences when they attended trade school, where they found a fair amount of time was wasted and found on-site training more beneficial. In saying this, however, several were very clear that there is still room for the traditional model. Peter was quite strong on this point:

Peter: I'd be very disappointed from an industry point of view if they got rid of off-site training. Fully on-the-job works for us, but it's not going to work for everyone and it would be bad for industry if that happened because it can become too relaxed and the apprentices do not get the training they need. For someone to take a different approach to apprentices, where they are purely cheap labour and they offload them when they're qualified and they get another apprentice, they are not concerned about how the apprentice is going to turn out.

Challenges for the employers. One criticism made by both employers was that the training and assessment provided by their RTO could have been more structured, with formal feedback and visiting schedules, so both employer and apprentice could have been better prepared. This is supported by Schofield (2000), who maintains that on-the-job training needs to be structured and planned and the work needs to be varied and challenging. As Peter said:

It is pretty relaxed from that approach. A little bit more structure and letting us know what times and dates he is coming would be helpful instead of "oh, yeah, we might go through this section today". So often the apprentice might be caught off guard on what is expected. Then just giving me feedback instead of giving me a wad of paper and saying sign here, sign here and sign here.

David (employer) acknowledged that he would have to take more initiative with the RTO trainer to make sure things were on track and that he knew what was going on and not just signing a wad of papers.

Compensating for limited work roles. While the employers were generally able to provide a range of work for their apprentices, they were cognisant of limited work activities and relevant work. David had taken the initiative of forming relationships with subcontractors and arranged an exchange program so that once or twice a year he would send his apprentice, Len, to work with one of these subcontractors to broaden his knowledge and give him a better insight into not just the carpentry trade but also the

building industry as a whole. This was a very good strategy; however, not all employers were engaged in this initiative, so there were some limitations for some apprentices.

The employers acknowledged the importance of providing the opportunity for their apprentice to network and socialise with other apprentices to overcome any isolation they might be experiencing. David, in particular, recognised this need and sought related training that complemented the on-the-job training but also provided that interaction with others for his apprentice.

Again, David was aware that it was important to provide a range of work that would meet the training package and competency requirements. As his business was deemed to be generalist in nature (defined earlier), David was able to provide the bulk of the work, but realising his apprentice also needed to broaden his knowledge and skill base, he arranged opportunities for Len to work with other related businesses. David stated that he was committed to providing quality training for his apprentice.

The research for this study identified that the employers/supervisors were not sure how competency-based completion worked, had not had it explained to them and were somewhat sceptical about the motivation of the system. Employers, in general, were not supportive of the CBC system. Whilst not averse to signing off an apprentice early if competent, one employer stated:

Peter: I am not anti-signing off apprentices before the four years as I have signed a couple of my apprentices off six months early ... but I've seen it; you get people taking on an apprentice – sometimes it could be a relative or a mate – and they rush them through so they get all their tools of the trade, payment and incentives but they don't have the skills; they couldn't build a house themselves, so, long term, it is harming the industry.

Stage 2: Fully On-The-Job Apprentice Follow-Up Telephone Interviews

Changes in circumstances. I was able to contact the three apprentices originally interviewed for the follow-up telephone interviews. Two of the apprentices advised that they had left their original employer due to various reasons but the training was not specifically identified as the cause. Len, who was the mature-aged apprentice, had resigned and moved into another field not related to the construction industry as the workplace culture had changed and so had the range of work. Another factor that had influenced his decision to leave for another job was the difficulty in supporting a family as a mature apprentice on an apprentice wage.

Len: Didn't like the company in the end so resigned and moved back into IT/production. Living off an apprenticeship wage as a mature-aged apprentice was very difficult and another big part of the reason for leaving.

When his work roles changed subsequent to his first interview, Jack, the second apprentice, left his original employer. He was not happy with the type of work they were doing. He felt that there was not enough variety, so he chose to leave to find an employer who could offer broader skills. He was ready to resume his apprenticeship with his new employer, also a building employer, and was keen to continue in his third year and ultimately finish his apprenticeship. He did not know what training delivery model his new employer would choose but was open minded about the choice his new employer would decide upon. It was clear that the apprentice would not have any input into the training mode; it was purely the employer's decision.

The follow-up telephone interviews (see Appendix D for the questions) with the apprentices revealed the importance of the trainer/assessor and their credibility. Both Steve and Jack advised that since their initial interview, the RTO had changed the trainer for both (both had the same trainer before and after the change). This had a significant

and positive effect on the apprentices in that the new trainer was perceived as better. The new trainer conducted training and structured assessments to better align with the work being conducted on site.

Steve: The new trainer made a massive difference ... he was organised, cared about what he did and had 20 years industry experience so knew what he was talking about. He made a huge difference, and I wish I had had him for my whole apprenticeship. I would have been a lot better off.

Jack: Before I left we got a new teacher and he was fantastic. A lot better than the first bloke.

Steve and Jack made a strong point that it would have been more beneficial to them if the trainer had spent more time on site with them going through their journals and the theory components of their training. The apprentices understood that this would be difficult for the trainer to arrange from a time allocation perspective, but they made a strong point that further support would have been welcomed and made their training more enjoyable.

Stage 1: Dual-Mode Training Model – Apprentices

Table 17. Dual-Mode Training (Apprentices)

Group	Company (pseudonym)	Employer (pseudonym)	Apprentice (pseudonym)	Second apprentice interviews
Dual mode	Wills Homes		Brad (1st Year)	Brad
Dual mode	Mac Homes		Ben (2nd Year)	
Dual mode	DDD Pty Ltd	Chad	John (3rd Year)	John
Dual mode	All In Builders		Jock (2nd Year)	Jock
Dual mode	TTT Homes	Tom	Stewart (4th Year)	

Characteristics. The five apprentices who participated in the dual-mode model generally attended their off-the-job training three days per month at the same TAFE institute. They were all at different stages of their apprenticeship and training (see Table 17). Four of the apprentices worked for employers who could be termed generalists, meaning they provided a broad range of job roles.

There was a first-year apprentice, two second-year apprentices, one third-year apprentice and one final-year apprentice. Because of the various and/or different stages, the four apprentices were positioned, they were able to give insightful overviews on their thoughts and observations of their training.

All apprentices in the dual-mode group were younger (less than 25 years old) than the fully on-the-job group apprentices. All five of them were studying the CPC30211 – Certificate III in Carpentry qualification. All the employers in this group were small domestic builders working in the Gippsland region.

Benefits/good points. The research found that the quality of the training received by the five dual-mode apprentices both on site with their employers and at TAFE was quite high. All these apprentices were satisfied with the way they were trained and assessed as it was

structured. This judgement emerged strongly from the interviews and supported the concept of an effective worksite training culture.

Jock: My boss is not on the tools anymore; he's got EJ and Chook – they are two qualified blokes. They show me how to go about things more by actions than words, but they are good.

Ben: My boss doesn't come on site all that much but he has two qualified blokes and they are really good. They will sit there and I've always been one, if I don't know something, to ask straight away; just I'd rather know, and yeah they always explain; or if they don't know, they will give Glenn (boss) a call and he will explain.

Stewart, who had taken a two-year break from his apprenticeship to work as a scaffolder in Queensland, had only recently returned to resume his apprenticeship. On his return, he noticed there had been a change in the process, including more emphasis on having a training plan and understanding the competency-based training system. He was also finding the workbook and theory somewhat difficult. The two-year break had exacerbated this difficulty as he was behind and finding it hard to maintain the pace and keep up.

Jock, another of the apprentices, was also finding the workbook and theory components difficult but his struggle was attributed to him being a first-year apprentice and not yet used to the training regime. Interestingly, none of the five apprentices had heard of the fully on-the-job training model nor did they know of any friends who were participating in that model. However, Stewart and Jock, who were finding the workbook and theory components difficult, believed they could cope with the fully on-the-job training model. When asked why they felt they might prefer this type of training, they said the hands-on aspects of the work that this model provides appealed to them. It was apparent that these two apprentices did not realise that the workbook and theory components had to be completed regardless of the training model they were enrolled in.

TAFE training. One of the apprentices did very little building but significant maintenance work and stated:

Ben: Coming to TAFE and learning all the different bits really helps. That little bit extra is good for when we are at work.

Jock and John stated that they were shown how to erect and use steel frames, which they did not use on any of their worksites, but it did enhance their skills and knowledge. These apprentices were also shown how to pitch a roof, which they said was very handy given that they usually brought fabricated roof trusses to the jobs. They believed being able to pitch a roof was a great skill to have.

John: We don't ever do steel frames, like we never do that on the job site, but we've done that at TAFE, so it gives us more experience in some things that you might not do on the job site ever.

Jock: Doing steel trusses and frames because I pretty much don't do them at all at work ever and probably won't for a long time, if ever.

It was obvious that the apprentices liked or appreciated the work of the teachers at TAFE.

There was clear appreciation of the way the teachers interacted and imparted knowledge.

Brad: The TAFE teachers are brilliant, friendly blokes and just bloody helpful, really. I don't know where I would be without them.

Ben: Yeah, the teachers are pretty good. We have had our clashes but, yeah, all in all pretty good, really.

Stewart: Teachers are good. If you're struggling, they help and show you how to go about it. They also discuss and help with the theory if you get stuck.

Study 1: Dual-Mode Training Model – Employers

Table 18. Dual-Mode Training – Employers

Group	Company (pseudonym)	Employer (pseudonym)	Apprentice (pseudonym)	Second Apprentice Interviews
Dual mode	Wills Homes		Brad (1st Year)	Brad
Dual mode	Mac Homes		Ben (2nd Year)	
Dual mode	DDD Pty Ltd	Chad	John (3rd Year)	John
Dual mode	All In Builders		Jock (2nd Year)	Jock
Dual mode	TTT Homes	Tom	Stewart (4th Year)	

Advantages. Overall, the employers were very happy with the dual-mode training model. They themselves were trained using this model so they were quite familiar with it. They did identify that the current system had improved from when they had trained and it provided a very good quality of training that complemented the work and training that was carried out on site.

The employers identified that the most important things for them were the core employability skills such as showing initiative, problem-solving, communication skills and learning. They also spoke about the nature of the work they do as generalists that very much supports the expansive features of Fuller and Unwin’s (2010b) expansive/restrictive framework.

Tom: Our business is more generalist than specialist; we’re not just a framing crew, our apprentices do it all – landscaping, concreting – we try and cover across the board. We deal with everything.

Chad: I have been doing this for 40 years and I am hands on. I have another full-time qualified man who’s been with me for years. He also helps with the on-site training. We do tiling, cupboards, kitchens, houses, framing, stumps, set-outs, hang doors, roofs, glazing; so we do it all and we show our apprentice everything.

Challenges. The disadvantages or limitations of the off-the-job component that were discussed were mainly to do with the travel component given their rural location. They did say that it could involve some significant travel time for their apprentices to go to trade school. This could be further exacerbated if the apprentice did not have a licence or a car. Tom also thought that the apprentices should be pushed through more quickly.

Tom: The pay side of things doesn't worry me. I see the pay as competency based as well. If you have a skillset of a fourth year and you're still a third year, it's right that you get paid for what you know.

Chad had a differing view and believed that to be fully competent across the trade, it should probably be at least a five-year apprenticeship, not less but definitely more. Both Chad and Tom were very positive about their responsibilities in training their apprentices. Tom in particular encouraged his apprentices to try and if they make mistakes keep asking and keep trying.

Tom: I don't get upset if they're having a go, but I will get upset if they're just standing around with their hands in their pockets.

Both employers were concerned about the overall industry and where it was heading. They were really concerned with the high-volume low-margin builders who use the fully-on-the-job training model, believing their apprentices are not being trained as they should be given they work in large crews doing specific work.

Tom: They get pushed into certain segments and only do a minimal number of the units out of the training package. This is just cutting corners and is all about pushing the boys (apprentices) faster; there is less attention to training.

Both were very happy with the training provided by their TAFE institute. They knew one of the teachers quite well and knew that his background was that of an ex-builder who had a good reputation. They both had confidence in him and the other teachers and said

that if there were ever any problems, the teacher would ring them to discuss and formulate a solution. The teachers were also very good at visiting on site for validation and sign-off on apprentices' training plans.

Stage 2: Dual-Mode Apprentice Follow-Up Telephone Interviews

The follow-up telephone interviews carried out with the apprentices involved with the dual-mode training model were conducted in May 2017. The three apprentices (see Table 17) contacted were very positive about their progress at work, were still with their original employers and everything was working according to schedule. All three apprentices – Brad, John and Jock – were still attending TAFE and their training and assessment was progressing well.

Brad: Training is going pretty well and to schedule. I am happy with what I am learning and how they are assessing me.

John: I am still attending the TAFE and training is definitely going well.

Jock: Yeah, still going to training three days per month. All good.

They were all still enjoying their jobs and were very enthusiastic that they would complete their apprenticeship and stay working with their current employer after completion.

Brad: Love it, and will definitely finish my apprenticeship. I will probably stay with my dad [employer] as we are busy.

John: Still enjoying the work very much. I will finish this year and will continue with my current employer.

Jock: Yeah, still going okay and will stay on with my current employer if possible. I haven't really had that discussion as yet.

Focus Groups

The focus groups were a good way to obtain a range of perspectives and information from stakeholders that work in the vocational training and apprenticeship systems. Both focus

groups were chosen because of their regional base which supported the regional status of the apprentices and employers.

Focus Group 1 – Gippsland.

Table 19. Focus Group 1 – Gippsland

Participant (pseudonym)	Job role	Type of organisation
Kate	Apprentice support officer	GTO
Simon	VET teacher	GTO
Scott	VET teacher	RTO
Matthew	Executive officer	LLEN

The four members of the focus group had a good understanding of the fully on-the-job training model and had been exposed to it at different levels in their job roles. The group really honed their discussion in on the quality aspects of the training and the consensus was that the fully on-the-job model was too variable and reliant on too many factors that could affect the quality of the training. They spoke about the employer’s culture and the support offered by the employer, the work ethic of the apprentice, the range or variety of work the apprentice undertook, the type of assessment and how the apprentice was evaluated and the experience and quality of the trainer.

Kate: I disagree with the model completely, especially for younger apprentices and feel that the apprentices, especially if they are young should attend trade school rather than stay on-the job all the time. They need interaction with other apprentices to talk to and share experiences and to get that broad scope of understanding of training as a whole. If they are doing their apprenticeship with a volume builder, for example, I feel that they’re taught things in a way where timeframes are a lot shorter and so feel that the quality would be jeopardised.

This was also supported by Scott, who stated that:

Scott: When students get together and interact with each other, they can actually get a different perspective of different ideas which is a definite benefit to them.

When asked to explain the benefits of the fully on-the-job model, none of the participants could identify any real advantages or benefits per se. The only thing discussed was the tyranny of distance and the ability for an apprentice working in remote areas gaining access to a TAFE institute or training centre.

The group also discussed the issue of whether some employers could be exploiting the fully on-the-job model by employing apprentices as cheap labour.

Simon: I think the employers ... some employers think that it makes them more money rather than the apprentices getting trained properly. Some say, "why should I lose my apprentice to trade school to pick up skills I don't need?" Cheap labour rather than skill development.

They all agreed that fully on-the-job training is totally dependent on the employer and the RTO trainer/instructor and the issue is that the range of quality instructors and employers can vary enormously. This can also be said for the dual mode of training where the quality of instructors can also vary, but it was felt that there were more control mechanisms in place in TAFE institutes, and more support for students and a student life cycle framework to encourage the apprentice to complete their training and apprenticeship. Those RTOs that deliver dual-mode training also have the ability to create simulated environments to ensure that apprentices gain exposure to a range of competencies that they may not encounter at work.

Matthew: I am one step removed from the training and apprenticeship process so that gives me a capacity to have a broader perspective. If you look at fully on-the-job training, it is completely dependent on the employer and instructors, yet the range and quality of both vary enormously. On-the-job training should be happening anyway no matter what training model is being used. The training is supposed to offer the theory and knowledge to support the practical aspects.

Scott, in his role over the past four to five years, has had students who were doing fully on-the-job training and were really struggling, and he indicated that it was an anxious time for both employer and apprentice.

Scott: The employer is not happy with the student, the student is not happy with the training, they feel like they are not learning anything. The employer then changes them from fully on-the-job and sends them to TAFE and the student thrives. They thrive because they have support networks and they develop friendships and all that sort of stuff.

Simon: A lot of employers now are not across the full spectrum. I can use making trusses as an example. Where it's just churning out trusses over and over again, you don't get the skill of hanging the door. Or if you're just framing and limiting part of the process, the full range of skills are not used or taught.

Scott: Not many companies do the whole shoot and shebang anymore. They hire it all in using "subbies" because it is cheaper and easier for them to do it that way. So the apprentices these days aren't getting the quality out on site as what they got when I was an apprentice.

There was a view that the apprentices are presented with a pre-arranged package when it came to training and that presented issues, especially when meeting the apprentices' needs. It seemed to favour the employer but the group was not sure that it would be of benefit to the apprentice or the industry.

Matthew: Generally, I'd suggest the kids are not given an option with training; they're presented with a package that is pre-arranged. This shall be the trainer, this shall be the process. So there's no identity or connection necessarily with the trainer, which can present problems.

The other concern raised by the group was the continual creep of high-volume low-margin builders, usually metropolitan based, who were building entire housing estates in the region. The group identified a number of issues with this new building phenomenon, including specialisation that was leading to narrow job roles and therefore limited skill development.

Kate: These companies are employing subcontractors who only do different specialised elements of the build and are charging very low rates. This makes it difficult for the local builders to employ an apprentice when the subcontractor's rate is similar to a first-year apprentice's wage. The industry will be in trouble if this continues. I speak with employers a lot and they say to me. "How can I employ a first-year apprentice when subbies who I am in competition with charge themselves out at the same rate. It makes it nearly impossible for me to employ an apprentice".

Simon: When the likes of these high-volume builders are coming here, they have apprentices who are not necessarily getting the full spectrum of the job. If everything is on the job, it's almost token attempts at covering the competencies that are not the specialisation of the contractor.

Focus Group 2 –Bendigo.

Table 20. Focus Group 2 – Bendigo

Participant (pseudonym)	Job role	Type of organisation
Owen	Training manager	Construction Industry Association
Ron	Owner operator	Employer
Steve	Structured workplace learning officer	LLEN
Dianne	Employment consultant	GTO
Faye	Business development officer	AASN
Reg	Chief executive	Private RTO
James	Industry consultant	Industry Peak Body
Angelia	Executive officer	LLEN
Ken	VET teacher	RTO
Mitch	Owner manager	Employer

Benefits. The 10 members of this focus group had a good understanding of the fully on-the-job training model and many of the members had been exposed to it at different levels in their job roles. Several members during the discussions identified a number of benefits with the model, especially for the employers.

The thought was that the employers benefited because they did not lose productivity. The apprentices were not leaving their workplace to go to a training centre, therefore they kept their focus on the work they were doing. It was thought that this would be enhanced by a good employer, good trainer and good conditions under which the apprentice worked. The other strong benefit that this model afforded the employers was the flexibility it offered. It provided employers with the ability to plan their work schedules with more certainty because they knew they would not be losing their apprentice off site to attend training. There was a sense that this had additional benefits as it forced the RTO to go out and visit sites, and that if they are getting out into the businesses this helps to form strong relationships with the employers and the apprentices.

Reg: I guess my experience has been that employers love the flexibility to overcome some of the challenging work programs that change on a daily basis.

Another matter raised was that some students actually loved the work because they hated school and this was an excellent way to cater for this type of student. If they could be trained on site, this would be a benefit because sending them off to a TAFE institute or a training centre would remind them too much of school, which they hated.

Reg: As for the apprentices, certainly being away from school is something that is particularly attractive. Being inside four walls is not one of the reasons they signed up for an apprenticeship. It does create challenges for the RTO delivering the training, but it does have benefits

Disadvantages. The group identified a number of disadvantages for the fully on-the-job training model and were strongly of the view that it could not be undertaken without compromise if all the training package requirements were to be met. Owen, who had worked in both public and private RTOs and was now working for a peak body organisation in the construction industry, stated:

Owen: I have been looking at the Certificate III Carpentry training package, and it is a sizable qualification. I have also been mapping the detail of the units against the various documents and I simply cannot see how all of the required skills, knowledge and performance evidence can be covered on the job. I hazard to say that I don't think any theory will be taught along with other relevant content.

Reg, Dianne and Ron agreed that it would be very difficult to accomplish fully on-the-job training without compromising the training outcomes. Angelia also raised concerns regarding the possible gaps that would emerge from the limited job roles. She stated:

Angelia: One disadvantage would be that in some instances where there are possible gaps because the range of work is not broad enough to cover off on competency, shortcuts are taken, and in some instances, qualifications would be awarded where a person wouldn't have met all the competencies that were required. We are reading in the media now about examples of shortcuts that have been taken and the lack of rigour and unscrupulous practice.

Dianne felt that young people needed peer groups as they tended to learn better in a group. She was sure that fully on-the-job training, especially as a single apprentice, could be very lonely and that they could only receive one perspective, which would be from the employer.

Dianne: If they go to TAFE or a training centre, they can get ideas from other apprentices working in other workplaces. That has to be better for them as well as having the ability for them to make friends. It could also mean that they bring back those ideas to their boss on the worksite.

Faye: At least the young people are getting ideas from other people when they go to TAFE. When you're the only one working with one boss and it doesn't matter what he does, whether he does the whole scope of everything, he's only being taught by one person.

Concerns were raised about the changing landscape in the building and construction environment, where high-volume low-margin companies were gaining large portions of the market share, and employing big crews and subcontractors who specialised in certain areas like framing. The specialisation and the narrow job roles as well as recognising what actually happens in the workplace was concerning. There was a strong feeling that if this were to be complemented with training in another environment, whether simulated or not, the apprentice would be getting exposure and practice in those skills, which would be a good outcome (the dual-mode model). Mitch had the recent experience of visiting an apprentice on the worksite and the apprentice in question simply did framing:

Mitch: The apprentice was working with an employer who just simply did framing; nothing else but framing. They framed a house and moved to the next one and framed that and so on. I had a discussion with both employer and apprentice on how the apprentice would get to know the other parts of the building and construction industry. The employer said he had two mates, one did fit-outs, the other final finish so what the three of them did was rotate their apprentices around the three because they identified the gap.

Ken: Going further to what Mitch said about these employers who were willing to spread their apprentices around to other employers who have particular skill sets that they practise more frequently than them, that's a really big commitment that that employer has to make. In my experience, that's the exception rather than the rule.

Kaye: Unfortunately, I see a lot of employers hand over the responsibility for training to someone else [RTO] and they don't necessarily have buy-in and skin in the game that they should have for the outcomes that young apprentices should be gaining in the workplace.

There was acknowledgement and understanding of the tension between productivity and training. The fully on-the-job model provided flexibility to employers, giving them the

ability to plan their work programs, knowing that they will not lose their apprentice for a week when they attend block training.

Owen: I think the employers do genuinely want their apprentices to acquire knowledge very much, but they're thinking that they're very busy at work and the block release they do see as an impost to the business. I also worry that quite a lot are not making the mandatory three hours per week training available to their apprentices.

They also believed that successful training really came down to the relationship between the trainer and the employer and how much, as one put it, “skin in the game the employer has”. Finally, there was acknowledgment that employers and apprentices working remotely had to deal with issues of distance to travel if using the dual-mode training model.

Chapter Summary

This chapter has identified the perceptions, experiences and opinions of all the participants that were interviewed and has highlighted the key points relating to the benefits and challenges of the two modes of learning – the fully on-the-job model and the dual-mode model. While the two modes of training are both legitimate and have their benefits, there were significant concerns or limitations identified with the fully on-the-job model.

The benefit identified by the apprentices engaged in the fully on-the-job model was the ability to have one-on-one training with their boss. They loved the workplace learning because of the strong hands-on practical components, which were supported by a strong workplace culture. Their employers supported the model because it gave them flexibility. Not losing their apprentices to a training organisation for periods of time meant they could plan their work schedules a lot better. They also felt they offered better training

because it was a real-life workplace-based experience for their apprentices. If they sent them to a TAFE institute, the employers believed the apprentices would get lost in a big class, waste time and only do simulated training. They also indicated concern at the currency of teachers' level of knowledge and experience given the building trade had progressed rapidly over the past few years and they were not sure the teachers had kept pace. The other consideration was the fact that they did at times work remotely and the distances for their apprentices to travel to a training organisation could be restrictive.

The limitations of the fully on-the-job training model in providing the wide range of skills required to meet the qualification and the difficulty of covering all the elements of the course were consistently identified by both of the focus groups. There was a strong view among the focus-group participants that apprentices needed access to peer support to mitigate the isolation and the lack of opportunity to share information and ideas with other apprentices that the fully on-the-job model produced. This situation was identified by the two apprentices who attended the working-at-heights training and they emphasised the value they received from networking with other people working in the trades.

Employers that were engaged in the fully on-the-job model had identified some issues with the training and that they needed to take some affirmative action to improve the situation. There was also acknowledgement that there was a tension between training and productivity and this was identified as real but difficult to control and was completely based on the integrity of the employer.

Finally, and probably the most important point, was the issue of narrow job roles that could develop due to the lack of variation in the types of work available to apprentices. This has been exacerbated by the rapid change in the building and construction sector,

which is experiencing a move towards high-volume low-margin building companies that employ subcontractors who by nature are job specialists.

Chapter 5: Analysis

Overview

This chapter discusses and analyses the research findings presented in Chapter 4. It has been organised to consider and address the main research question and to critically discuss the four sub-questions. The findings from the previous chapter that discuss the experiences, perceptions and opinions of all the participants (both fully on-the-job and dual-mode apprentices), the employers of both groups of apprentices and the members of the two focus groups are analysed. The themes originating from the interviews are considered in relation to the literature review.

What Are the Benefits and Challenges of Fully On-The-Job Training for the Apprentices and Employers Using This Mode of Training?

Benefits for the apprentices using fully on-the-job training. The findings clearly indicate that being an apprentice was satisfying for the participants in the context of working and being paid to learn. The apprentices valued the training they had received within their workplace settings and were satisfied with the breadth of training and the support offered by the employer. For instance, each respondent remarked on the passion of their employer or supervisor, how knowledgeable they were, and how willing they were to share their knowledge.

Quality relationships must be forged between employers and training providers to support the implementation of good workplace training (Chan, 2012; Schofield, 2000), where all parties work together to ensure they have a shared understanding of the expectations, roles and responsibilities in apprenticeship (Chan, 2012). Such relationships were evident between the fully on-the-job group participants, which consequently provided a positive workplace culture that proved beneficial to the apprentices' learning experiences. The

apprentices stressed the value of the one-on-one training they received through the fully on-the-job model provided by their employer or supervisor.

Billett (2001a, 2001b, 2004) clearly states that workplaces are legitimate environments that provide opportunities to individuals, in terms of the activities they engage in and how they engage, which are important to their learning. Vaughan et al. (2012) assert that establishing relationships, providing a supportive learning environment, and ensuring there is alignment between training and assessment assists the apprentice's progress and Choy et al. (2008) also state that employment-based training is now available for most occupations in most industry sectors, and at all VET qualification levels. Wood (2004) emphasises that satisfaction can be enhanced if the apprentice has a supportive employer.

The fully on-the-job apprentices also saw a significant benefit in what they described as real training, which was the work they did on site every day. They believed that this model of training was much more meaningful than doing simulated training activities at a TAFE institute or another off-the-job training organisation. Harris et al. (1998) support this view and go on to say that on-the-job training is perceived to be real life, contextualised, relevant and is the main source of an apprentice's learning.

The other major benefit the on-the-job apprentices identified was that they did not have to travel the large distances to a training organisation to attend dual-mode training. The travel time could be as much as three to four hours, which was regarded as a big commitment and unproductive.

Benefits for the employers using fully on-the-job training. The employers using the fully on-the-job mode of delivery did not consider anything else as they were adamant that it was more beneficial for their apprentices to stay at the workplace. The reason given for this decision was the belief that it enabled their apprentices to become established in

the way of work and the way they or their business operated. The employers were most decisive in their view that dual-mode training, especially in a TAFE, was a waste of time and were concerned that their apprentices would not receive the appropriate training. They were concerned that their apprentices would be placed into a large group or class and just “become a number”. If the apprentices did not speak up, they would be lost or overlooked.

They were also concerned that their apprentices would not receive the one-on-one real-time training they provided and would be exposed only to simulated training. If this was the case, then it would become a waste of time. Smith, Smith, Tuck and Callan (2017) state that barriers to training for employers can include the difficulty of accommodating training in relation to work demands; other organisational constraints; insufficient government incentives; and issues with an inflexible training system. The employers had a low opinion of the TAFE system due to previous bad experiences, or as identified by Smith et al. (2017) that the training provided was not flexible or specific enough.

Another factor for the employers was the importance of not losing their apprentices off site to attend off-the-job training in order that they could then better schedule or plan their day-to-day and weekly work. Added to this was the location of their work, which was regional, and the considerable distance that would be required for their apprentices to travel if they were to attend off-the-job training. Given these factors, they much preferred the fully on-the-job training model.

Challenges for both employer and apprentices using fully on-the-job training. One of the findings was that the trainer visiting them on site was not sufficiently organised and could have been far more structured. There was some frustration from the employers’ perspective that the trainer did not offer much feedback on how their apprentices were

performing, where he was up to with his training or explain what he was going to cover when he came on site. This was also identified by one of the apprentices (Steve) who felt that the trainer was too casual in his approach. This was further acknowledged by apprentices Steve and Jack in their secondary interviews when they had a new trainer visit them and the difference they experienced. Schofield (2000) clearly states training needs to be structured, rigorous, useful and relevant to an apprentice performing their job. Wood (2004) goes further by highlighting the theoretical frameworks that trainees and apprentices require may not be as sound as in other training arrangements (dual-mode); ensuring that the employer is able to teach the relevant competencies despite them not being qualified trainers; this is why explaining the responsibilities and requirements of fully on-the-job training to both apprentice and employer is so important. Apprentice Steve also supported a better structure as this would enable him to prepare for the site visit and complete the relevant workbook activities associated with the training units and competencies that should be aligned to the work activities. The training plan is one of the key tools that assist the apprentice, employer and trainer to work together towards the common purpose of ensuring that the training is relevant and structured in order that the acquisition of competencies and assessment can be achieved (Vaughan et al., 2012).

Another finding was that the rapid change in the building and construction sector that had been occurring and the move to sub-contracting had resulted in many instances of the narrowing of job roles. Even though the employers were aware of the importance of providing a range of work that would meet the qualification requirements, there were gaps. Employer David was in a position to provide the bulk of the work but also provide the opportunity for his apprentice to work with other colleagues to broaden his knowledge and skill base. David was also committed to providing quality training for his apprentice.

Fuller and Unwin's (2010a) restrictive and expansive framework analyses and characterises the different learning environments that influence outcomes. Restrictive environments or job roles limit knowledge and skills of the occupational field, whereas expansive environments encourage broader job roles and the opportunity to demonstrate capabilities and progress with skills and knowledge that will ensure progression and completion.

Both fully on-the-job employers recognised that opportunities for their apprentices to network with other apprentices outside their companies were limited despite knowing that to come together as a group, exchange views and share experiences was desirable for apprentices. Harris et al. (1998), Smith (2002), and Robertson et al. (2000, as cited in Wood, 2004) all support the view that one factor of effective apprenticeship/traineeship is "...interaction and interpersonal relationships where apprentices and trainees have opportunities to discuss their work with others. This interaction provides the basis for facilitating apprentices and trainees to make the connection between what they have learned and the implications it has for their work" (Robertson et al. 2000, as cited in Wood, 2004, p. 2). Lave and Wenger (1991) assert that communities of practice are important within organisational development and have considerable value/merit when thinking about working with groups. Wood (2004) raises further concern "that training may be specific to one workplace rather than generally applicable" (p.9). Wood (2004) goes on to say "that the benefits peer networks provide for isolated learners have been long recognised, with innovations often being developed for geographically isolated individuals such as those in remote and rural communities" (p. 25).

Apprentice Steve, in particular, felt that the training could be tightened up as he felt the trainer was rather casual in his approach, but he also recognised that there might be gaps in the training. Whilst not advocating that he would move to dual-mode training, he felt

some balance would be beneficial and would assist with better or more stringent assessment and acknowledgement of the skills acquired on site. This was also, again, related in some ways to accessing peer groups or networks where the sharing of experiences and the exchange of views would improve knowledge and the different ways of accomplishing tasks.

This dissatisfaction with the casual training approach demonstrated through the second telephone interview process, where the training improved immensely when there had been a change of trainer. The new trainer brought structure and more rigour to the training and assessment process, which gave the apprentices more confidence and satisfaction. This was very clear from their statements. Dunn and Jacobson (2001) state that while most teachers and trainers want to provide high-quality training, and many do, some of the imperatives in the “new economy” (for example, funding arrangements, pressures of competition, user choice) can turn the delivery of accredited training into a type of “pressure-cooker”, almost assembly-line process. They go on to say “that many teachers and trainers do not have the curriculum development skills and therefore do not recognise the problematic aspects of delivering training packages” (p. 208)

The apprentices would have preferred it if the trainer had spent more time on site with them to go through their journals and the theory components of their training. The apprentices understood, however, that this would be difficult for the trainer to arrange from a time allocation perspective, but they made a strong point that further support would have been welcomed. Favero (2003) identified that workplaces may be distant from a trainer’s home base and travel time could be substantial, especially if apprentices were absent without warning, or the employer and apprentice had suddenly moved to a different worksite without warning. This was not the case in this research study, but it would be reasonable to assume that a trainer would be required to visit a certain number

of apprentices per week, making it challenging to offer additional support due to time constraints.

How Do the Different Modes of Fully On-The-Job and Dual-Mode Training Compare?

The research for this study has illustrated that the apprentices and employers involved in both delivery models were mainly satisfied with their particular mode of delivery. The fully on-the-job apprentices preferred the constant one-on-one real training provided by their employer or supervisor and they did not waste time travelling to trade school three days every month. They also did not like the simulated training provided at TAFE, where they would build something for assessment and then have to dismantle it afterwards.

The employers of the fully on-the-job apprentices also liked the fact that they did not lose them for three days per month to attend off-the-job training in a TAFE or training centre, but had them available on site every day to carry out the required work and training. This scenario, in their view, made it very easy to plan their work schedule. The employers also made it clear that they did not have a high opinion of the off-site training and the teachers' motivations and skills currency at the TAFE institutes. They believed that the teachers had been teaching for a long period of time and, being out of the industry for so long, had not kept up with the changes within the industry. They were also aware of the necessity to offer a broad range of skills to their apprentices and in some cases "loaned" their apprentices to subcontractor friends to ensure a range of skills was acquired.

It was obvious that the employers were not aware or had not been made aware of the changes introduced by ASQA, the Australian regulator, who introduced standards for RTOs in 2015. One of the standards (1.13) outlines the requirements to be met by the RTO, including "the vocational competence of teachers to at least the level being

delivered and assessed; current industry skills directly relevant to the training and assessment being provided; and current knowledge and skills in vocational training and learning that informs their training and assessment” (ASQA, 2015, p. 19). This means that all teachers and/or trainers and assessors must be able to prove their vocational currency, including TAFE teachers, so they are cognisant of contemporary industry practices.

The dual-mode apprentices and employers were just as satisfied and enthusiastic regarding their mode of delivery. These apprentices had been exposed to competencies and training they would not normally undertake on site, so they believed they were receiving well-rounded training with support from their teachers. Smith (2002) highlights the importance of off-the-job training as a chance to learn theory and to appreciate the different ways of accomplishing tasks.

The employers also saw the benefit to the apprentices in leaving the worksite and attending trade school to socialise and network with other apprentices, where they would share ideas and views on how different aspects of carpentry could be undertaken. Whilst the travel distance to trade school was substantial in some cases, the employers believed that the benefits outweighed the impost of the travel. Harris et al. (1998) state that TAFE is important because it provides apprentices with a broad appreciation of the trade as well as teaching them how to apply themselves to study and learning. It provides the apprentices with an opportunity to learn about practices in other companies and be exposed to skills and situations that might not be utilised at their current workplace, whereas fully on-the-job training, and the amount of training that includes, can be subject to the capriciousness of the employer or supervisor.

How Do the Different Participants (Apprentices, Employers and Focus Group Members) View the Different Modes of Training?

It was obvious that both the apprentices and employers using the mode of training of their choice were satisfied. It was interesting that the employers interviewed had not experienced the other modes as employers. By this I mean that the employers who were using the dual-mode training model had never employed apprentices and trained them using the fully on-the-job training model and, conversely, those employers who were using the fully on-the-job training model with their apprentices had never used the services of training organisations for off-site training of their apprentices. Consequently, comparing the benefits and shortcomings of the two training models was difficult.

All of the 10 focus group respondents were strongly of the view that fully on-the-job training could not be delivered successfully without compromise. One respondent in particular (Owen), who had experience working for both a public and private RTO and was now working for a peak industry group in the building and construction sector, knew the training package very well and stated that he could not possibly see how all of the required skills, knowledge and performance evidence could be covered completely by fully on-the-job training. He did not think that the theory would be taught along with the other relevant content. As discussed previously, Wood (2004) has identified the need to proactively provide for theory training in the workplace as there is a possibility or a risk of believing that theory is not worth having due to the workplace culture, and Dunn and Jacobson (2001) state that due to the market tending to demand quick training at low cost, intangible skills and theory are at risk.

Wheelahen (2008) argues that competency-based vocational education and training qualifications in Australia deny students access to the theoretical knowledge that underpins vocational practice, anyway. Wheelahan goes on to say that “linking

knowledge to specific workplace tasks and roles means that students are only provided with access to contextually specific applications of theoretical knowledge and not the disciplinary framework in which it is embedded and which gives meaning” (p. 1).

Four of the focus-group respondents also raised concerns regarding the changing nature of the sector, with the growth of the high-volume low-margin building companies leading to a growth in subcontractors being engaged who were specialists and therefore could provide only narrow job roles for their apprentices. The high-volume low-margin business model appears to be based on using subcontractors who specialise in different elements of the building phase. This specialisation and moving from house to house to just perform these specific tasks has limited the diversity of the job roles performed by many apprentices in the building industry. The focus groups’ concern was that the range of work being completed by these apprentices is not broad enough to achieve the necessary competencies that are required of the training package. They were already concerned with examples that had been published in the media outlining shortcuts, lack of rigour and unscrupulous practices questioning the quality of training. As referred to in the literature review, Fuller and Unwin’s (2010a) restrictive and expansive framework examines job roles in a narrow and expansive context and presents its characteristics as two ends of a continuum.

The expansive end of the continuum is the ideal type of apprenticeship, whereas the restrictive environment is focused on trying to move apprentices as quickly as possible; however, if apprentices are treated as an extra pair of hands who only get access to limited knowledge and skills to perform a job, they will only develop a limited range of competencies (Fuller & Unwin, 2010a).

Six respondents, two from the Bendigo focus group and four from the Gippsland group, raised concerns regarding the culture and commitment of employers who only use the fully on-the-job model and the tensions that exist between productivity and training. The employers interviewed for this study stated they had a commitment to training, but that did not become evident in the apprentice interviews, where they said they were at times placed under pressure to finish specific jobs and therefore had to complete their workbooks/training at night. Vaughan et al. (2012), Wood (2004) and Schofield (2000) all contend that there will always be tensions and competing demands between the training environment and the commercial environment and this is difficult to manage, especially from an apprentice's point of view.

Finally, six respondents from across both focus groups commented strongly on the need for apprentices to engage with other apprentices so they could benefit from sharing experiences, exchanging views and discussing their training. As referred to in the literature review, the importance of networking opportunities to share views and experiences is covered by Lave and Wenger (1991) in their community of practice, where groups of people who share concerns or passion for something, do learn how to improve their skills and competencies through interactions with each other.

How Can Fully On-The-Job Training Deal with Apprentices in Narrow Job Roles?

The four employers and 12 focus group respondents (16 in all) identified that narrow job roles were a real concern, especially given the way some of the large high-volume low-margin building companies operated and the business models they used. These companies usually engaged subcontractors to complete specific tasks on building sites. The subcontractors would specialise in certain elements of the job and move from site to site

to carry out these specific tasks, which could be considered narrowed job roles. Such a work profile would make it very difficult for an apprentice working in these circumstances to achieve the competency requirements of the 22 core and eight elective units of the carpentry qualification.

To overcome and deal with the narrow job role issue when using fully on-the-job training, the employer needs to be aware of the gaps or range of work required to meet the necessary skills. One of the employers in the study did recognise the need to broaden the work and skill base of his apprentice and was open to letting his apprentice work “on loan” with other employers who could provide that wider experience. This is showing great support and commitment to the apprentice, but you could not assume that all employers would take this approach.

In this research study, the three apprentices who were involved in the fully on-the-job training model were working for generalist employers who were providing a broad range of work applications. However, if they had been working for a subcontractor in a specialised field with narrow job roles this would have been challenging for them in terms of achieving their carpentry qualification as they would have been restricted in their exposure to a wider range of work and learning opportunities that would have facilitated the development of the skills and knowledge required for them to progress within their current workplace. Fuller and Unwin (2013) propose the notion that expansive and restrictive characteristics provide a helpful way of analysing the learning environments being created. An expansive environment will create stronger and richer learning environments compared to those that have features associated with restrictive or narrow environments. Limiting the learning activities in terms of tasks and knowledge can result in a restricted range of skills being developed.

Chapter Summary

This chapter has provided an analysis of the data obtained from both apprentices and employers engaged in the fully on-the-job training model and has identified the advantages and disadvantages of this training model. Data was also obtained from apprentices and employers engaged in the dual-mode training model. The data collected was then analysed to compare both modes of delivery.

Further analysis using triangulation of the focus group data, which was validated through cross verification from the different sources, enabled a conclusion to be formed.

The advantages identified by both the apprentices and employers engaged in the fully on-the-job training model were as follows:

- Real-time training was much more meaningful than simulated training activities.
- Significant travel distances to attend off-the-job training were seen as a barrier and waste of time.
- Flexibility in the sense that employers could better plan their work schedules knowing they had access to their apprentices all the time.

The disadvantages of the fully on-the-job training model were as follows:

- Lack of peer support, community of practice or the ability to network and share information with other apprentices.
- The potential for the apprentices to find themselves with narrow job roles and work activities that were restricting their ability to acquire a broad range of skills necessary for their carpentry qualification.

A full summary and the recommendations developed as a result of the analysis are detailed in the next chapter.

Chapter 6: Conclusion

This research study has provided some insight into the experiences of apprentices and their employers involved in both fully on-the-job training and dual-mode training. Their experiences were also supplemented with the knowledge and experiences of a range of stakeholders who were working or had worked in the training sector and had been exposed to the building and construction sector. The findings have been examined against a range of literature; however, the literature relating to fully on-the-job apprentices within Australia is rather limited so further research is required to assist in filling this void. While the small number of participants involved in the study meant that my conclusions had to be moderated, the consistency of the findings are still compelling and relevant.

Apprentice Views

The study has highlighted several factors that are important to apprentices. It was found that apprentice satisfaction with work conditions, the type of work and the way the employer treats the apprentice through the obligations in the training contracts are significant. These factors, combined with the relevant training and assessment, determine the level of satisfaction and influence the decision of whether the apprentice will complete their apprenticeship or drop out of the industry altogether. What is evident is that apprentices care about their work and how they are supported. They are also mindful of the breadth and quality of their learning and place significant importance on the knowledge and experience of the trainer/instructor. This was revealed in the follow-up interviews of the apprentices participating in this study where the change in instructor had a profound and positive effect on their knowledge and assessments.

The research also identified how little influence the apprentice had in the determination of their training mode – fully on-the-job or off-the-job delivery and what could be done if they did not find the training satisfactory apart from leaving. Studies in Australia by Karmel and Misko (2009), Cully and Curtain (2001), Callan (2008) in Smith et al. (2011) and in other countries such as Germany have, for example, found that apprentices leave their training contracts more often for job-related rather than for training-related reasons. Apprentices also preferred or enjoyed the opportunity to participate in group activities and/ or training away from the workplace. Being with other apprentices gave them the chance to network and discuss how other employers or organisations approach training, and how and what support is provided to the apprentice. This was acknowledged by the employers as important, so depending on how and when this is delivered may influence the value of fully on-the-job training.

Issues Raised by the Study

One of the main issues that was clearly identified by the participants in the focus groups and the employers who were using the dual-mode training model was the rapidly changing construction industry, with the high-volume low-margin builders and subcontractors expanding their market share and thereby introducing to the sector a growing specialisation of certain elements of the trade. The consequence of this specialisation has been the narrowing of job roles for apprentices, which is limiting their learning activities in terms of tasks and knowledge and equipping them with a restricted range of skills (Fuller & Unwin, 2008.).

Another concern that was raised was whether the teaching and theoretical framework that apprentices require and is outlined in the training package may not be as sound or as effective for the fully on-the-job model as for other training arrangements and is therefore

compromising the quality of training received by fully on-the-job apprentices. Wood (2004) says that in reality it is rare for 100 per cent of the training that takes place fully on-the-job to occur without the quality and the outcomes of the training being compromised. Another weakness in fully on-the-job training is the fact that apprentices enjoy few, if any, opportunities to exchange views and experiences with other apprentices and stakeholders in the industry (Wood, 2004). It is clearly desirable for apprentices to be exposed to other views and ideas, and discuss problems and mistakes that have been experienced in order to learn from them.

Advantages Identified in the Study

Employers using fully on-the-job training identified advantages in that it offers flexibility for employers on how the training is organised and in a way where the apprentice is not required to leave the job. This gives stability to the employer, who can plan the specified program of work around having access to the apprentice at all times instead having to plan around losing the apprentice at times to off-site training as part of the dual-mode model. Another advantage is the real-life work that in most cases formal learning cannot or does not offer. This puts the apprentice front and centre in the workplace, doing and observing.

For regional and rural apprentices, another advantage clearly identified was that this model precluded the large distances that apprentices would have needed to travel to attend dual-mode training.

Chapter Summary

In this research study, it became evident that all the apprentices who participated in the study valued their relationships with their trainers. This point was highlighted by both of the apprentice groups training under the two different types of models. The first group involved in the fully on-the-job training model identified how important it was or became when they had a change of trainer who would spend more time and care working with them. The dual-mode training model group had nothing but praise for their TAFE teachers and valued the support and assistance they offered. The apprentices also valued the opportunity to share ideas and exchange views on different practices used within their workplace.

Both apprentice and employer groups had only experienced their current mode of training model. Granted that the employers using the fully on-the-job model had been trained by TAFE institutes, they had not, however, used TAFE since and had not been exposed to the new RTO standards that were regulating the VET system to see if they could identify any positive change (Department of Industry, 2013). Similarly, those employers who were using the dual-mode training model had not used or experienced fully on-the-job, but they did not feel the need and were satisfied with their current training regime.

There is enough evidence to question whether the fully on-the-job training model can deliver the full range of competencies within the Certificate III in Carpentry CPC30211 qualification and there were certainly areas of improvement that had been identified. One of the apprentices and employers highlighted the need for more structure and rigour in the on-site assessment process. They believed the trainer was very casual in his approach.

Two members of the Bendigo focus group, who were VET practitioners and had mapped the competencies, expressed their concern about whether the fully on-the-job model could

meet all the requirements, especially with the increasing number of limited or narrow job roles that were being assigned to apprentices. Even the employers engaged in the fully on-the-job model, who were deemed to be generalists, were mindful of offering a diverse range of work to ensure that the skills acquired by their apprentices were adequate. Those employers and apprentices using the dual-mode training model were satisfied with their outcomes. The apprentices were very positive in discussing their experiences and their exposure to skills and knowledge they would not normally have encountered when on the job. Requirements within the qualification experienced at TAFE, such as pitching a roof and erecting a steel frame, are examples of a few of those skills they would normally not have experienced. Finally, improving or coordinating a level of networking that enabled the apprentices to share their views and experiences, as well as their employers' commitment to training and their ability and willingness to impart their knowledge, is also considered to be a vital component in the training and development of apprentices.

The fully on-the-job training model will continue whilst user choice is available and it will continue to pose difficulties if some of the weaknesses or limitations identified in this study are not addressed. Whilst further research is required to determine what quality assurance measures are required to ensure the integrity of fully on-the-job training, I offer a number of recommendations that may strengthen the fully on-the-job model so there is confidence in the quality of its training.

1. Better data should be retained by federal government – that is, from the apprenticeship training contracts – to clearly identify those apprentices who are being trained using the fully on-the-job model. This would enable the government to consider better-quality frameworks once it has an understanding of the quantity of apprenticeships using this model, especially if that number is increasing significantly.

2. Narrow job roles or specialised areas of employment should be excluded from or quarantined from participating in the fully on-the-job training model. This would be identified by the RTO and the Australian Apprentice Support Network at the pre-training planning review stage.
3. Arrangements for apprentices to network using communities of practice or peer learning should be mandatory when the fully on-the-job training model is employed so as isolation of the apprentice is avoided. This could be achieved using online forums or other online methods.
4. For rural and remotely located apprentices, an additional and more rigorous assessment framework should be introduced to ensure that the skills and knowledge that are to be acquired meet all the competencies.
5. To cater for high-volume use of fully on-the-job training, additional requirements should be introduced to ensure the assessment process has rigour and is robust. An independent assessor could be considered to ensure there is integrity and confidence in the model. Whilst not described in my research, I am aware that New Zealand does have independent assessors embedded in their vocational education and training system that could be investigated.

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Appendices

Appendix A: Ethics Approval

Principal Researcher:	Erica Smith
Other/Student Researcher/s:	Carolyn Johnstone Barry Wright
School/Section:	SEA
Project Number:	A14-046
Project Title:	PhD – What are the experiences of apprentices and employers involved in fully on-the-job training for apprentices in the building and construction trades?
For the period:	23/05/2014 to 31/12/2017

Please quote the Project No. in all correspondence regarding this application.

REPORTS TO HREC:

An annual report for this project must be submitted to the Ethics Officer on:

23 May 2015

23 May 2016

23 May 2017

A final report for this project must be submitted to the Ethics Officer on:

31 January 2018

These report forms can be found at:

<http://federation.edu.au/research-and-innovation/research-support/ethics/human-ethics/human-ethics3>

Fiona Koop

Ethics Officer

23 May 2014

Please see attached 'Conditions of Approval'.

CONDITIONS OF APPROVAL

1. The project must be conducted in accordance with the approved application, including any conditions and amendments that have been approved. You must comply with all of the conditions imposed by the HREC, and any subsequent conditions that the HREC may require.
2. You must report immediately anything which might affect ethical acceptance of your project, including:
 - Adverse effects on participants;
 - Significant unforeseen events;
 - Other matters that might affect continued ethical acceptability of the project.
3. Where approval has been given subject to the submission of copies of documents such as letters of support or approvals from third parties, these must be provided to the Ethics Office before the research may commence at each relevant location.

4. Proposed changes or amendments to the research must be applied for, using a 'Request for Amendments' form, and approved by the HREC before these may be implemented.
5. If an extension is required beyond the approved end date of the project, a 'Request for Extension' should be submitted, allowing sufficient time for its consideration by the committee. Extensions cannot be granted retrospectively.
6. If changes are to be made to the project's personnel, a 'Changes to Personnel' form should be submitted for approval.
7. An 'Annual Report' must be provided by the due date specified each year for the project to have continuing approval.
8. A 'Final Report' must be provided at the conclusion of the project.
9. If, for any reason, the project does not proceed or is discontinued, you must advise the committee in writing, using a 'Final Report' form.
10. You must advise the HREC immediately, in writing, if any complaint is made about the conduct of the project.
11. You must notify the Ethics Office of any changes in contact details including address, phone number and email address.
12. The HREC may conduct random audits and / or require additional reports concerning the research project.

Failure to comply with the *National Statement on Ethical Conduct in Human Research* (2007) and with the conditions of approval will result in suspension or withdrawal of approval

Appendix B: Plain Language Information Statement

PROJECT TITLE:	PhD – What are the experiences of apprentices and employers involved in fully on-the-job training in the building & construction trades?
PRINCIPAL RESEARCHER:	Professor Erica Smith, Dr Carolyn Johnstone
OTHER/STUDENT RESEARCHERS:	Barry Wright

We invite you to take part in an interview or focus group for this research project.

This research project explores the training experiences of apprentices and employers involved in fully on-the-job training in the building and construction trades (carpentry). In this research we will try and understand more about the fully on-the-job training model, examine the benefits from both an apprentice and employer's perspective and also identify any implications or challenges with this training model.

The study has two stages with Stage 1 using a three stepped process.

Stage 1

1. A series of individual face-to-face interviews (approx 1 hour duration) with (25) apprentices aged 18 years or over who are undertaking fully on-the-job training to share their experiences and obtain their views on the training. Interviews will be recorded using audio equipment with consent.
2. A series of interviews (approx 1 hour duration) to be conducted face-to-face with (25) employers of the apprentices that use fully on-the-job training. The employers will be asked how they were trained, why they chose to train their apprentice fully on-the-job and establish any advantages and or disadvantages. Interviews will be recorded using audio equipment.
3. Three focus group interviews (40-60 minute duration) with Group Training Companies, Australian Apprenticeship Centres, VET teachers, Peak Body Groups and Registered Training Organisations to gauge an understanding how apprentices are identified to participate in fully on-the-job training, how this model is measured and whether it is appropriate in the work settings. Interviews will be recorded using audio equipment.

Stage 2

1. Revisiting and reinterviewing as many as possible of the original apprentices after a 9 – 12 month duration.

Participation in this study is voluntary with the ability to withdraw at any time without giving a reason. You can also choose not to answer particular questions during the interviews. Apprentices and employers will be recruited through organisations such as Australian Apprenticeship Centres and the focus group participants will be recruited with the help of the Local Learning Employment Networks. All employer/apprentice anonymity will be kept to avoid the ethical obligations and power relationships between the

employer/apprentice. This will be avoided by not disclosing individuals' identity and by allocating codes to summarise and analyse data.

Data collected for this project is confidential and will only be accessed by the researcher and supervisors working on the project. Interview transcripts/audiotapes will be stored securely for 5 years before being destroyed. The research is being used as a PhD thesis and interview transcript and results will be sent to participants if requested and amendments can be made. Small sample sizes may present privacy/anonymity implications. It is unlikely, but not impossible, that the project could be subject to a freedom of information order. If you have any concerns regarding the conduct of the researcher throughout the interview process or research project, please contact the Ethics Officer at Federation University Australia; contact details are listed below.

If you have any questions, or you would like further information regarding the project titled – What are the experiences of apprentices and employers involved in fully on-the-job training in the building & construction trades?, please contact the Principal Researcher, **Professor Erica Smith** of the **School of Education & Arts**:
PH: 03 5327 9665
EMAIL: e.smith@federation.edu.au

Should you (i.e. the participant) have any concerns about the ethical conduct of this research project, please contact the Federation University Australia Ethics Officer, Research Services, Federation University Australia, PO Box 663, Mt Helen VIC 3353. Telephone: (03) 5327 9765, Email: ub.ethics@federation.edu.au

Appendix C: Consent Form



PROJECT TITLE:	PhD – what are the experiences of apprentices and employers involved in fully on-the-job training for apprentices in the building and construction trades.
RESEARCHERS:	Professor Erica Smith, Dr. Carolyn Johnstone & Barry Wright

Consent – Please complete the following information:

I, of

.....

hereby consent to participate in the above research study.

The Federation University Australia's Human Research Committee has approved this research study. The research study in which I am being asked to participate has been explained fully to me, verbally and in writing through the Plain Language Information Statement, and any matters on which I have sought information have been answered to my satisfaction.

1. I understand that participation in this study is voluntary.
2. I understand that all information I provide will be treated with the strictest confidence and data will be stored separately from any listing that includes my name and address.
3. I understand that interviews will be recorded using audio equipment with consent.
4. I understand that I am free to withdraw my consent at any time during the study in which event my participation in the research study will immediately cease and any information

obtained will not be used.

5. I understand that all data will be kept securely.

6. I understand that the storage and use of personal data will comply with current legal requirements.

7. I understand that if the sample size used in this research study is small that it may have implications with privacy/anonymity, however every effort to keep anonymity will be made.

8. I understand that once information has been aggregated it is usually unable to be identified
and from this point it is not possible to withdraw consent to participate.

9. I understand that aggregated results will be used for research purposes and may be reported in scientific and academic journals.

• **SIGNATURE:** **DATE:**

Appendix D: Interview Questions

Stage 1 - Apprentice Questions - fully on-the-job

1. Why did you want to be an apprentice? What attracted you to this industry/job or apprenticeship?
2. Did your employer have a talk to you about how training would be done?
3. Were you provided with a training plan when you started? Did you know what was in it?
4. How do you think you are going with your skills/competencies and knowledge required for the job?
5. Has anyone explained competency based completion training to you? What do you think it might mean?
6. How often does your RTO visit? How often are you assessed? How are you assessed?
7. Tell me about your employer/supervisor? How well do you get along?
8. Do you know anyone or have friends that attend other RTOs/TAFE? Do you talk to them about their training and if so are there any differences from your training? Would you like to try off-the-job training? If so why and what do you see as any advantages?
9. What sort of things and skills are you learning at work? How do you think you are going – do you like the work? Is the training what you thought it would be like and expected?
10. Do you think the way you are being trained is helping you learn your trade? Do you think you might gain anything extra in off-the-job training?
11. Is there anything that makes it difficult for you learning at work?
12. What do you think has been good and not so good - explain?
13. Is there anything that you think would make your training better?
14. Is there anything that might stop you from completing your apprenticeship?

Stage 2

1. After working and training for some time now and since my last visit/interview how are you going?
2. How do you think you are going with your training?
3. Are you happy with your skills and knowledge progression?
4. How often does your RTO come to see you? Are you happy with your assessments?
5. How are you going with your employer/supervisor?
6. Do you still enjoy the work you are doing?
7. Is there anything that you can think of that would make training and your job easier and better?
8. Do you think that you will finish your apprenticeship?

Stage 1 - Employer Questions – fully on-the-job

1. Why did you employ an apprentice?
2. How were you trained yourself – was it by fully on-the-job or a combination of on-the-job and off-the job (attending trade school) training?
3. What is your understanding of the training plan, did you have much input into its design and how do you use it?
4. What types of skills are important on your work-sites and jobs (that make the apprentice effective)?
5. What was your motivation in choosing fully on-the-job training and do you think the decision has been justified?
6. Are you satisfied with this choice? What do you think your apprentice(s) thinks about it?
7. How does the RTO manage the training?
8. In your opinion are the competencies being met against the training plan units of competency?
9. What are the advantages of fully on-the-job training to you?
10. Have you ever employed an apprentice using off-the-job training?
11. Do you see any flaws in fully on-the-job delivery model? If so what are they? How do you overcome them?
12. Are you confident that when your apprentice has completed the apprenticeship they will be a competent tradesperson?
13. Do you think the apprentice is happy? Do you think your apprentice likes their training?
14. Is this system catering for you and your apprentice's needs? Has it met your expectations?
15. How can fully on-the-job training be improved?
16. From your perspective who was responsible for setting up and implementing the training plan?
17. What role have you played in the training of your apprentice as opposed to other workers/supervisors?
18. How are/is your apprentice/s assessed and how involved are you?

Stage 1 - Focus Group Questions

1. Tell me about your involvement in construction apprenticeships?
2. Explain to me your understanding of fully on-the-job training? Please explain what you think it consists of?
3. Please explain the benefits of this particular training model for employers and apprentices?
4. Please articulate any disadvantages you see this with delivery model – employers and apprentices?
5. What do the employers that you deal with think about this model and why?
6. Who proposes or promotes fully on-the-job training?
7. What do you think apprentices think about this model? Do you ask them and do they get a choice in their training delivery model?
8. Tell me your thoughts given your work in this field.
9. What do you think the general view of the construction industry think about this type of training?
10. Do you foresee that fully on-the-job training will create any issues or problems in the future?
11. How do you think this particular training model can be improved?

Stage 1 - Apprentice Questions – off-the-job

1. Why did you want to be an apprentice? What attracted you to this industry/job or apprenticeship?
2. Did your employer have a talk to you about how training would be done?
3. Were you provided with a training plan when you started? Did you know what was in it?
4. How do you think you are going with your skills/competencies and knowledge required for the job?
5. Has anyone explained competency based completion training to you? What do you think it might mean?
6. How often do you visit your RTO? How often are you assessed? How are you assessed?
7. Tell me about your employer/supervisor? How well do you get along? How well do you get along with your TAFE teacher?
8. Do you know anyone or have friends that are trained fully on-the-job? Do you talk to them about their training and if so are there any differences from your training? Would you like to try fully on-the-job training? If so why and what do you see as any advantages?
9. What sort of things and skills are you learning at work? How do you think you are going – do you like the work? Is the training what you thought it would be like and expected? What sort of things are you learning at your RTO that might be adding value to your skills?
10. Do you think the way you are being trained is helping you learn your trade? Do you think you might gain anything extra in fully on-the-job training?
11. Is there anything that makes it difficult for you learning at your RTO?
12. What do you think has been good and not so good - explain?
13. Is there anything that you think would make your training better?
14. Is there anything that might stop you from completing your apprenticeship?

Stage 2

1. After working and training for some time now and since my last visit/interview how are you going?
2. How do you think you are going with your training?
3. Are you happy with your skills and knowledge progression?
4. How often do you attend your RTO? Are you happy with your training and the assessments?
5. Are you happy with your assessments?
6. How are you going with your employer/supervisor?
7. Do you still enjoy the work you are doing?
8. Is there anything that you can think of that would make training and your job easier and better?
9. Do you think that you will finish your apprenticeship?

Stage 1 - Employer Questions – off-the-Job

1. Why did you employ an apprentice?
2. How were you trained yourself – was it by fully on-the-job or a combination of on-the-job and off-the job (attending trade school) training?
3. What is your understanding of the training plan, did you have much input into its design and how do you use it?
4. What types of skills are important on your work-sites and jobs (that make the apprentice effective)?
5. What was your motivation in choosing off-the-job training and do you think the decision has been justified?
6. Are you satisfied with this choice? What do you think your apprentice(s) thinks about it?
7. How does the RTO manage the training?
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9. What are the advantages of off-the-job training to you?
10. Have you ever employed an apprentice using fully on-the-job training?
11. Do you see any flaws in fully on-the-job delivery model? If so what are they? How do you overcome them?
12. Are you confident that when your apprentice has completed the apprenticeship they will be a competent tradesperson?
13. Do you think the apprentice is happy? Do you think your apprentice likes their training?
14. Is this system catering for you and your apprentice's needs? Has it met your expectations?
15. How can the off-the-job training be improved?
16. From your perspective who was responsible for setting up and implementing the training plan?
17. What role have you played in the training of your apprentice as opposed to other workers/supervisors?
18. How are/is your apprentice/s assessed and how involved are you?

Appendix E: Sample of Matrix – Apprentice Group 1 (Fully On-The-Job)

Date	Question	Response	ID	Key words/phrases	Initial codes
	Why did you want to be an apprentice? What attracted you to this industry/job or apprenticeship?	I guess I always liked hands-on work from an early age. I grew up on a farm so just enjoyed working from an early age and university never interested me, and on-the-job training sounded pretty good. I'd originally done a year of a landscaping apprenticeship, which I enjoyed but couldn't really see much of a future in digging holes and stuff like that. So that's why the building industry took my fancy because we built a few decks while I was landscaping. So from there got interested and did some work experience for Integra, and I had family involved in it. So I saw that it was pretty interesting.	Steve	I guess I always liked hands-on work from an early age. I grew up on a farm so just enjoyed working from an early age and university never interested me, and on-the-job training sounded pretty good. Building industry took my fancy because we built a few decks while I was landscaping.	Hands on Grew up on a farm Training sounded pretty good Built decks while I was landscaping
		Construction industry. I just basically wanted a change of career and wanted to do something hands on and liked the idea of carpentry. I had a lot of friends who were builders and carpenters, and I did a little bit of work with them and quite enjoyed it, so all that and working outside. Doing the apprenticeship was just a good way for me to sort of tick off all the skills that I needed to because I had literally no skills in building to start with or carpentry, so it felt like just the best way for me to tick all the boxes.	Len	Wanted to do something hands on and liked the idea of carpentry. I had a lot of friends who were builders and carpenters and I did a little bit of work with them and quite enjoyed it, so all that and working outside.	Hands on Liked the idea of carpentry Lot of friends who are builders and carpenters Enjoyed working outside
	Did your employer have a talk to	Yes. So when I had my interview,	Steve	They told me upfront.	Told upfront

Date	Question	Response	ID	Key words/phrases	Initial codes
	you about how training would be done?	they talked to me about who it would be through, and it was through Murray Mallee Training, which is on- site training. I'd done some TAFE work when I was doing my landscaping, so I had a bit of an idea, but it was all new to me. They told me upfront.		When we were signed up for the apprenticeship he talked to us about the on-site training, gave us a bit of an outline on how that would work.	Signed up for apprenticeship Talked about on-site training
		Yep, at the start when we were signed up for the apprenticeship, he talked to us about the on-site training, and gave us a bit of an outline on how that would work.	Len		Outline on how it would work
	Were you provided with a training plan when you started? Did you know what was in it?	I'm not sure if I was given a training plan; yeah I was that's right I was given a thick book. I never read it, it was pretty much a heap of jargon, but it talked about titles of what I would be studying. What was the other question? Yes.	Steve/Jack	Yeah I was, that's right I was given a thick book. I never read it, it was pretty much a heap of jargon, but it talked about titles of what I would be studying.	Given a thick book Never read it Heap of jargon Titles of what I would be studying
		They did, yeah, and I couldn't remember it now, but, yeah, they did give us a whole bunch of information that sort of outlined the modules that we needed to do, and when we would do them and how long it would all take.	Len	They did, yeah, and I couldn't remember it now, but, yeah, they did give us a whole bunch of information that sort of outlined the modules that we needed to do, and when we would do them and how long it would all take.	Gave me a whole bunch of information Outlined modules How long it would take