

**The state of on-the-job training in
Australian Disability employment services:
Implications for Policy and Practice**

by

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Candidate's Declaration

I certify that this thesis does not incorporate without acknowledgment any material previously submitted for a degree or diploma in any university; and that to the best of my knowledge and belief it does not contain any material previously published or written by another person except where due reference is made in the text.

Candidate's Name: June Erica Alexander

Signed:

Date: 1/5/19

Certificate of Regulatory Compliance

This is to certify that the research carried out in the doctoral thesis, "*The state of on-the-job training in Australian Disability Employment Services: Implications for Policy and Practice,*" College of Education, Psychology and Social Work, Flinders University, Adelaide, Australia is the original work of the candidate, except as indicated by appropriate attribution in the text and/or in the acknowledgements; that the text excluding appendices/annexes, does not exceed 100,000 words; all ethical requirements applicable to the study have been complied with as required by Flinders University of South Australia, other organisations and/or committees which had a particular association with this study, and relevant legislation.

Ethical authorisation code: 6323 Flinders University Human Ethics Committee

Candidate's Name: June Erica Alexander

Signature:

Date: 1/5/19

Supervisor's Declaration

This is to certify that the research carried out for the doctoral thesis, "*The state of on-the-job training in Australian Disability Employment Services: Implications for Policy and Practice*," was completed by June Erica Alexander in the College of Education, Psychology and Social Work, Flinders University, Adelaide, Australia. The thesis material has not been used in part or in full for any other qualification, and I confirm that the candidate has pursued this course of study in accordance with the requirements of Flinders University regulations.

Supervisor's Name: Associate Professor Julie Clark

Supervisor's Signature:

Date: 1/5/19

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UIOGD

Abstract

People with intellectual disability continue to experience high rates of unemployment. Even when employed they experience lack of career progression and lower rates of pay. Research suggests that inadequate training is a factor that contributes to persistently high rates of unemployment and underemployment for those with disability. Therefore, vocational training staff equipped with expertise in training strategies to assist those with intellectual disability to gain and maintain employment is imperative. However, there is limited understanding of quantity and quality of on-the-job training provided to employees with intellectual disability and the factors that influence the provision of on-the-job training provided by disability vocational trainers. The aims for the study were:

1. To determine the nature and extent of the provision of on-the-job training for employees with intellectual disability receiving services from Australian Disability Enterprises (ADEs previously referred to as sheltered employment) and Open employment (commonly referred to as jobs in mainstream employment).
2. To obtain views and perceptions regarding on-the-job training in Australian Disability Employment Services from staff and employees with intellectual disability.
3. To determine training strategies being taught in the Disability Certificates III & IV.

The study gathered data from vocational trainers (staff) working in ADEs and Open employment and employees with intellectual disability working in ADEs and lecturers providing the training to vocational trainers.

Using 'Job Performance' Theory as the basis, this study used a sequential explanatory mixed-methods design. Aims were addressed in three separate phases (1) the pilot study (2) main study (data collection) and (3) main study (data analysis). The main study was conducted in three stages. Firstly, a questionnaire was completed by vocational trainers (staff) working in nine disability employment services in two states of Australia (South Australia and New South Wales). The questionnaire examined staff use of 19 strategies known to assist people with intellectual disability to gain and maintain employment. Forty-eight questionnaire responses were analysed using descriptive analysis. Secondly, interviews were conducted with 11 staff, about their use of these strategies, and with 15 employees with intellectual disability regarding their views and perspectives of training received. The training plans of the employees with intellectual disability were also analysed. Lastly, three lecturers from a tertiary education setting were interviewed concerning how they taught the training strategies to vocational trainers.

Staff questionnaire findings indicated that the most utilised training strategy was 'show and tell.' Staff interviews revealed that staff did not know how to utilise most training strategies presented in this study in line with literature recommendations. Interviews with employees with disabilities highlighted their desire for further training opportunities. Employees Individual Training Plans (ITPs) indicated, training provided predominantly focussed on requirements to obtain funding certification from the government. TAFE (Technical and Further Education)/RTO (Registered Training Organisations) lecturers working in tertiary education delivering Disability III and IV qualifications revealed during interviews that the training strategies examined in this study may not be taught adequately.

Overall findings indicated that vocational trainers do not utilise the majority of the training strategies because of preconceived ideas about employees' abilities, lack of experience in utilising the strategies and competing business and funding demands.

These findings provide implications for practice and policy on the factors that influence the provision of on-the-job training by disability vocational trainers. Further research with a greater number of participants is recommended.

Chapter 1: Introduction

1.1 Background

The Australian Federal Government provides over \$1.2 billion annually in employment assistance to people with disability. This money is distributed to two main programs DES (Disability Employment Services and ADEs (Australian Disability Enterprises) (Disability Employment Services, 2010).

Firstly, Disability Employment Services (DES) is funded \$800 million annually by the Department of Social Services (Department of Social Services, 2018b). This employment option is referred to as competitive or Open employment. There are 117 providers of the DES programs operating across almost 2000 sites in Australia, assisting people with disability with employment preparation and training services. DES assists approximately 140,000 individuals with disability to gain and maintain meaningful employment in the open labour market (Department of Social Services, 2017). Of the 140,000 there are 75,200 that have a permanent disability, who require ongoing support (Department of Education Employment and Workplace Relations [DEEWR], 2012a). Of those with permanent disability accessing support from Open employment services, 27.2% having a primary disability of intellectual disability (Australian Government, 2014).

The second government funded disability employment service is Australian Disability Enterprises (ADEs). Like Open employment services, ADEs are funded via Department of Social Services (DSS). Receiving \$1.1 billion in funding from 2015-2020 (DSS, 2018c). The forerunners of Australian Disability Enterprises were established in the 1950s and were known as sheltered workshops. In the mid 1980s national disability funding was reviewed which resulted in the *Disability Services Act* (DSA) 1986. At this time, sheltered employment was renamed Business Services.

Further evolution continued and in 2009, Business Services were rebadged Australian Disability Enterprises (ADEs). Today ADEs has a dual focus providing employment support for those with disability and operating a commercial business that provides financial sustainability. Although ADEs are criticised for engaging in industries that are at risk of automation and having small profit margins (Department of Social Services, 2017). Nationally there are 325 ADE services employing 20,000 people with moderate to severe disabilities. 73.6% had intellectual disability as their primary disability (Australian Government, 2012b). ADEs run commercial businesses in areas such as:

- manufacturing;
- light engineering;
- horticulture and landscaping;
- printing;
- packaging and distribution;
- agriculture;
- timber and furniture manufacture;
- recycling;
- hospitality;
- commercial laundries;
- car detailing; and
- commercial and domestic cleaning

It is generally acknowledged that in the USA and England the terms competitive employment and supported employment refer to models that assist people with disability in integrated jobs alongside workers without disability. However, in Australia, the term supported employment has become synonymous with sheltered workshops i.e. segregated employment (Cain, 2005). Throughout this thesis when referring to sheltered

workshops, the term Australian Disability Enterprises (ADEs) is used and when referencing community based employment the term Open employment is used.

Open employment not sheltered employment (ADEs) is widely considered the preferred option for those with intellectual disability (Beyer, de Borja, de Urries, & Verdugo, 2010; Bond et al., 2001; Wehman et al., 2018). Sheltered employment is viewed as segregating and isolating for those with disability (Powers, 2008).

Competitive employment offers further advantages over sheltered employment. For example, employees with disability can earn higher wages (Kregel & Dean, 2002), they have increased job satisfaction (Akkerman, Janssen, Kef, & Meininger, 2016), better community connections and increased self-determination (Meltzer et al., 2016).

However, this study focused on those with moderate to severe intellectual disability of which the majority are working in ADEs (Australian Government, 2014; Meltzer et al., 2016). Moreover, there is a reduction in numbers working in competitive employment (Bush & Tassé, 2017; Cheng et al., 2018). Therefore, it was considered important to assess the state of on-the-job training in both competitive and sheltered employment settings.

1.2 Statement of the issue

Benefits of employment for individuals include providing financial independence, a better standard of living and improved physical and mental health (Ross & Mirowsky, 1995). Added benefits of employment for an individual with disability are, enhancing social status, offering a sense of inclusion and increased participation in other areas of life (Australian Government Productivity Commission, 2004; Myriad Consultants, 2005). The unemployment rates for those with disability are far greater than those without. Australia's unemployment rate in September 2015 was 6.2% (Australian Bureau of Statistics [ABS], 2015), and people with disability made up

a large percentage of this statistic with 61% of people with intellectual disability not engaged in the labour force (ABS, 2014).

As a result of unemployment, lower incomes and higher rates of poverty are experienced. The relative income of people with disability in Australia is approximately 70% of those without disability (VicHealth, 2012). Consequences of unemployment include lack of social inclusion and autonomy and decision making (VicHealth, 2012).

Poor employment participation rates for people with disability can be attributed to many factors. For example, employer concerns about the employees with disability productivity rates, the cost of workplace modifications (DEEWR, 2011), fear of legal liability (Kaye, Jans, & Jones, 2011), and skills deficits (Powers, 2008). Poor 'job matching,' which provides little or no alignment between employees work goals and skills with the employer's needs, is also recognised as contributing to low job retention (Flynn, Wacker, Berg, Green, & Hurd, 1991; Jones & Sloane, 2010; Kostick, Whitley, & Bush, 2010). In times of 'economic restructuring,' that is, a shift from manufacturing to service type jobs, it is the low-skilled and low-income population, (which includes people with disability) that face even more disadvantage (Macnicol, 2011). Periods of economic recession can also negatively affect employment for people with disability (Wehman & Bricout, 1999). An additional barrier to employment for people with intellectual disability is lack of skills (Powers, 2008) however, training helps address this issue. Training is integral to obtaining and maintaining employment for those with disability (Butterworth, Gelb, Migliore, & Nord, 2012; Crawford, 2012).

1.3 Significance

Despite the federal government's ongoing funding there is still opportunity for improvement in the area of disability employment. Australia has one of the lowest employment participation rates for people with disability in the Organisation for

Economic Co-operation and Development (OECD) countries (PriceWaterHouseCoopers, 2011). If unemployment for this cohort of potential employees is not addressed, it promises to be a significant issue in the future. The number of people with severe or profound disability in Australia is projected to increase over the next 40 years from 1.4 million to 2.9 million (PriceWaterhouseCoopers, 2009). Utilising work skills of those with disability is particularly important given the Australian workforce is facing a major labour skills shortage, with a shortfall of 195,000 workers predicted from 2009 onwards (State Government Victoria, 2013). Some of the occupations that are reported to suffer skills shortages include: agriculture and horticulture; building professions; construction trades; food trades (Australian Government, Department of Employment, 2016). Furthermore, the Australian National Training Authority (2000) warns that it is costing the Australian community \$18.8 billion dollars per annum, by not addressing the vocational training needs of people with disability. There are several recommendations that support addressing this issue: more research on workforce skills and productivity associated with people with disabilities and adopting on-the-job approaches to skills training for workers with disability (Powers, 2008). An important factor in increasing work skills for people with moderate to severe disability lies in vocational staff utilising appropriate training techniques (Lattimore, Parsons, & Reid, 2006; Mank, Cioffi, & Yovanoff, 1998; Wehman & Bricout, 1999).

Research into vocational staff use of training strategies is very limited, with research conducted mainly outside of Australia. Furthermore, most studies have concentrated on a small number of strategies with limited number of participants. Moreover, studies do not include the perspective of employee's with intellectual disability on the state of on-the-job training. Gaining insight into the factors that

influence training of employees with disability may ultimately lead to a greater number of employees with disabilities being more productive and valued members of workplaces.

1.4 Research Questions

In pursuing the main research question, ‘What factors influence the provision of on-the-job training by disability vocational trainers?’ Three contributory questions will sharpen the research focus.

1. What training strategies are vocational trainers utilising to instruct employees with intellectual disability?
2. How do vocational trainers and employees with intellectual disability view the training provided?
3. What training strategies are being taught in the Disability Certificates III & IV?

1.5 Thesis structure

This thesis is presented in nine chapters and describes the results of a sequential (explanatory) mixed methods study design. It incorporates three phases designed to address the state of on-the-job training in Australian Disability Employment Services. Phase 1 includes the pilot study, Phase 2 main study data collection and Phase 3 main study data analysis.

This chapter (Chapter 1) highlights the importance of conducting research into the type and extent of training provided to people with intellectual disability and provides an overview and significance of the study.

The second chapter (Chapter 2) provides a literature review of factors related to success in employment training, describing what is currently known about disability employment training in both the national and international literature. Including studies

and issues surrounding vocational trainers and the 19 training strategies highlighted in this study. Finally stating this study's research questions and aims.

The third chapter (Chapter 3) presents the epistemological position of the study and the benefits of utilising a mixed method design. Further details of this study's theoretical framework, methodology and associated analysis and justification of using these particular methods are also included. Additionally, Chapter 3 describes the pilot study conducted. The pilot study assisted by allowing planned procedures to be tested, which led to alterations to the study's data collection prior to the main study.

The Chapters which follow – Chapters 4, 5, 6, 7 and 8 present the results for each of the quantitative and qualitative phases of the study. They were conducted sequentially so that each phase builds on the earlier phase.

Chapter 4 presents the findings of the quantitative phase involving a questionnaire of 48 disability employment staff that provide training to supported employees in either ADEs or Open employment in either South Australia or New South Wales. The questionnaire set out to explore whether staff were familiar with the 19 training strategies presented. Analysis using IBM SPSS Statistics 22 and descriptive statistics was used to determine relationships, predict outcomes and analyse correlations.

Chapter 5 presents findings from interviews conducted with staff. Interviews built on staff responses to the questionnaire questions. Interviews explored whether staff in accordance with Job Performance Theory had the 'procedural knowledge and skill' to implement the 19 training strategies appropriately and, if staff were motivated to utilise the strategies.

Chapter 6 presents a combined discussion of staff questionnaire and interviews. Interviews were analysed using thematic deductive analysis. The prevalence of the

theme was measured in terms of the importance of how the theme answered the research questions and how many participants gave a similar response.

In Chapter 7 employee interviews and information from their training plans provided further insight into the nature of training being provided to employees and highlights employee's expectations of training in supported workplaces.

Chapter 8 summarises the interviews with lecturers from Registered Training Organisations (RTO) and Technical and Further Education (TAFE) providers to address the study's third question: What training strategies are being taught in the Disability Certificates III and IV? This chapter helps address anomalies from the staff questionnaire and interviews.

Chapter 9 presents integrated findings from the combined data, which offers triangulation to answer the main research question: What factors influence the provision of on-the-job training by disability vocational trainers? This chapter offers recommendations for policy and practice, including the study's limitations, future research and recommendations. Finally (Chapter 10) provides a summary of key findings and conclusion.

Chapter 2: Literature Review

2.1 Introduction

The purpose of this chapter is twofold: to present a critical review of the literature on employment training in general and for people with intellectual disability in particular. This literature review will define and describe:

- a definition of employment training for people without disability;
- the importance of employment training for people without disability;
- critical factors that affect training outcomes for people with and without disability;
- the role of vocational trainers (disability employment staff);
- types of training strategies that can be utilised in the workplace for those with intellectual disability;
- existing studies in the area of disability employment training; and
- rationale for the study.

2.2 Benefits of employment for all

The advantages of employment are far-reaching both society and individuals profit from elevated levels of employment. Advantages for society include the promotion of higher living standards and increased spending stimulating economic activity (Deloitte, 2011; Forstater, n.d.). Benefits of employment for individuals include providing financial independence, a better standard of living and improved physical and mental health (Drake & Bond, 2008; Ross & Mirowsky, 1995). Furthermore, employment is capable of assisting individuals to structure their time, provide opportunities for challenge, self-expression, social interaction, clarification of personal identity and creation of a sense of personal worth (Biggio & Cortese, 2013).

2.3 Benefits of employment for people with intellectual disability

For an individual the benefits of employment are significant, which is further enhanced for those with disability. Employment can be important in determining society's acceptance of its members (Noon, Blyton, & Morrell, 2013). Hence, added benefits of employment for those with disability are enhanced social status, offering a sense of inclusion and increased participation in other areas of life (Australian Government Productivity Commission, 2004; Myriad Consultants, 2005). For employers, research indicates that employer benefits of employing someone with a disability include low absenteeism, low turnover, low accident rates, high productivity and high motivation (Graffam, Smith, Shinkfield, & Polzin, 2002). Furthermore, employing someone with a disability enhances competitive advantage by increasing customer loyalty and satisfaction, productivity and innovation (Lindsay, Cagliostro, Albarico, Mortaji & Karon, 2018).

2.3.1 Current state of employment for people with disability

While employment is beneficial, globally unemployment and underemployment contribute to the economic and social problems people may encounter. For example, unemployed persons may experience higher incidence of distress, depression, anxiety and lower self-esteem (Paul & Moser, 2009) and society endures increased cost in welfare, crime and health care (Wisman, 2010). In Australia, a higher unemployment rate has been persistently recorded for people with disability. And this despite, in the last decade, Australia undergoing a period of sustained economic growth with record low rates of unemployment in the general population (ABS, 2011).

The participation rate of people with disability in employment is particularly poor for those with severe or profound core activity limitation (communication, mobility and self-care limitations). This group of people have experienced a fall in

employment participation in recent years (ABS, 2010). In 2015, 25.0% of people with profound or severe limitation were in the labour force, whereas in 2012 the participation rate was higher at 29.7% (ABS, 2016). These figures are particularly disturbing given that most people with disability want to work (Ali, Schur, & Blanck, 2011; National Organization on Disability [NOD], 2000) and are productive workers when given the opportunity and appropriate support (Commonwealth of Australia, 2011; Graffam et al., 2002). Additionally, ABS data (2012) showed that as severity of disability increased, the employment participation decreased. While 52.5% of those with mild or moderate disability aged between 15-64 years participated in employment, only 29.7% of those with profound or severe disability were employed (ABS, 2015). Furthermore, these alarming statistics may be underestimated, due to inconsistent definitions of 'profound and severe' disability and fragmented approaches to collecting employment related information (Dempsey & Ford, 2009; Madden & Hogan, 1997).

Additionally, when individuals with intellectual disability do participate in the workforce they are typically underemployed, earn low wages, experience limited career progression, and are more likely to encounter discrimination because of uncertainty about productivity (Jones, Mavromaras, Sloane, & Wei, 2014; World Health Organization [WHO], 2011).

Many contributing factors have been highlighted concerning the persistently high rates of unemployment and underemployment for those with disability. For example: (1) *Misconceptions about capabilities* with many still viewing people with disability as incapable and a burden (Commonwealth of Australia, 2009; Ellenkamp, Brouwers, Embregts, Joosen, & van Weeghel, 2016); (2) *Restructure of industry and labour market with automation and use of technology*. Barnes (1999) argues that while technology can support people with disability in the workplace it does not necessarily

create employment for those with disability. New technology increases automation and decreases the necessity for repetitive tasks to be completed. These are the tasks that traditionally people with disability undertook in their employment; (3) *Exclusionary admission criteria to vocationally oriented programs*. Often the people with disability that obtain employment are those that can be easily matched to a pre-existing job vacancy that requires little adjustment or modification (Australian Federation of Disability Organisations [AFDO], 2010; Couch, 1992); and (4) *Inadequate training*. Training is integral to obtaining and maintaining employment for people with disability (Butterworth et al., 2012). Specific training methods and their application, not IQ scores play a vital role in people with even the most severe disabilities learning complex skills and tasks (Bellamy, Peterson, & Close, 1975; Gold, 1973). In fact, the Australian disability employment service with the best outcomes for people with disability have staff that utilise specific training to support employees with disability (Inclusion Australia, 2016). However, there is empirical evidence that suggests trainers may not be providing necessary training to employees with disabilities (Gold, 1973; Kirby, 1997; Parmenter, 1991). Staff are accused of lacking training expertise that employees with intellectual disability require (DeFazio & Flexer, 1983).

If unemployment for this group of potential employees is not addressed, it promises to be an even more significant issue in the future. As previously mentioned in chapter 1, the number of people with severe or profound disability in Australia is projected to increase over the next 40 years from 1.4 million to 2.9 million (PriceWaterhouseCoopers, 2009). Utilising work skills of those with disability is particularly important given that the Australian workforce is facing a major labour skills shortage (State Government Victoria, 2013). The International Labor Organization (ILO) primary goal is to achieve full and productive employment for all and they make

several recommendations to address this issue. Firstly, they suggest, better meeting training needs that enhance productivity for people with disability so they can earn a better income. Secondly, adopt on-the-job training approaches to skills development to help address the often low level of education that many people with disability have received. Thirdly promote workplace accommodation and flexibility for workers with disability. This includes modifications or adjustments to a job, an employment practice, or the work environment (Powers, 2008).

2.4 Training for all employees

2.4.1 Definition of training

Often ‘training’ and ‘education’ are used interchangeably however the two differ significantly. Education addresses an individual’s knowledge while training is focused on gaining a specific skill (Siegel & Lane, 1982). Training often addresses a particular need, vocation or skills gap. Training has its focus on correct performance and skills, which is different to increasing knowledge (education) (Parsons, Rollyson, & Reid, 2012). Therefore, training can be described as the process of being conditioned or taught to perform a particular skill or type of behaviour (Mangal & Mangal, 2009). Training is teaching skills and knowledge that relate to specific useful competencies. Training has the goal of improving capability, productivity and performance.

2.4.2 The importance of employment training

Employment training is of enormous benefit to the economy, business and individuals. It has been suggested that there are some difficulties with analysing the costs/benefits of training because of the variety of factors that influence analysis (Griffin, 2016). For example, skill acquisition itself is difficult to measure and therefore measurement is often based on participation and formal training. This ignores non-

accredited, information and incidental on the job training. However, some findings are apparent across multiple analysis (Griffin, 2016).

Training produces positive returns for taxpayers (Gattiker, 1995); in fact Griffin (2016) reports training produces a substantial 18% return on investment to the Australian economy. Non-financial outcomes include increased health; reduced national crime and drug use; increases in employability, democratisation and human rights and improved environment (European Centre for the Development of Vocational Training [CEDEFOP], 2013).

The importance of the provision of training by employers is recognised both in Australia and overseas. For example, in Australia 81% of employers have reported providing some training for their employees (ABS, 2003). Employers provided structured training (external workshops, lectures and tutorial, 41%) and on-the-job training (79%) (ABS, 2003). While Scandinavian countries as well as France and New Zealand are reportedly the most training intensive countries, with participation rates above 45% of employers and more than 30 hours per employee annually (Bassanini, Booth, Brunello, De Paola, & Leuven, 2005). Higher rates of training are attributed to strong union representation, high number of apprenticeships offered and levies imposed on companies if they do not train employees.

Businesses training has been shown to be one of the most important strategies and crucial for success (Tsai & Tai, 2003). For example, businesses need to be continually upskilling their employees to maintain competitiveness (Bassanini et al., 2005). For those businesses that do invest in quality training (discussed in the following paragraph), their expected return on investment has been reported to be between 30-7000%, with the extremely higher rate of return contributed to lower staff turnover (Griffin, 2016).

Griffin (2016) notes that the cost of not having employees trained and proficient at their job is: increased workloads for other staff; increased operating cost and difficulty in meeting customer needs. Conversely the benefits of training for an organisation include: a more skilled and knowledgeable workforce; less supervision required; less product/time wastage; more committed employees with less absenteeism and staff turnover; and increased quality and quantity of output (Betcherman, Leckie, & McMullen, 1997; Larsen, 2017). Furthermore, non-direct economic benefits of training have been shown to provide positive changes to workplace culture and increased cooperation (Griffin, 2016).

Research has shown that training may affect an individual employee's success in the workplace (Darrah, 1995; Salas, Tannenbaum, Kraiger, & Smith-Jentsch, 2012). Generally, training provided at the workplace has a positive impact on individuals' wages and chances of promotion, particularly when this training is employer provided rather than off the job (Ananiadou, Jenkins, & Wolf, 2004). This positive influence of on-the-job (OTJ) training is because staff reportedly learn best in the natural environment (Webster-Wright, 2009). Moreover, the increase in employee's earnings resulting from training is reportedly larger than the cost of their training (Couch, 1992). Increased employee's earnings was measured by accessing earning records for trainees and a control group in 10 sites across Australia (Couch, 1992). Additionally, workplace training has been shown to be associated with an employee's increase in self-esteem, self-confidence, greater job satisfaction and better health and fewer accidents (CEDEFOP, 2013).

In summary employment training has both financial and non-financial returns for the economy, individual businesses and employees. For businesses, providing training is crucial for success leading to lower staff turnover and a positive workplace

culture. For an individual the provision of training can afford increased wages and promotion. However, for success in these areas to occur training must be effective.

2.4.3 Definition of types of training

Training can be described by the environment in which it is provided, or the setting in which training takes place: off-the-job or on-the-job (OTJ) (Harris, Willis, Simons, & Underwood, 1998). (1) Off-the-job training is provided away from the actual workplace; this includes, workshops, seminars, conferences, tertiary studies (in class or online). (2) On-the-job training takes place in the natural environment or regular workplace, using the actual tools and equipment that will be used when fully trained (Manufacturing Skills Australia, 2011). OTJ training is often provided by existing staff that complete the task/s being taught.

Despite the popularity of off-the-job training, including it being aligned with education (in that it teaches theory or concepts), theory learnt may not be applied or practiced without complimentary OTJ training (Harris et al., 1998). Furthermore, off-the-job training can be sometimes costly in terms of an employee's time away from work and financial cost of a course (Ostrowski Martin, Kolomitro, & Lam, 2014). However, off-the-job training effectiveness is increased when coupled with practice that OTJ training affords (Harris et al., 1998).

OTJ cost/benefits is problematic to discern given the cost of providing such training is difficult to measure (Brunello & De Paola, 2004). Even still Australia wide, OTJ unstructured training has had the most growth (ABS, 2003). This may be because OTJ training can be seen as a cheap and effective training method as it requires only a person who knows how to do the task, and no special equipment other than what is normally used on the job (Chao, 2014). Despite these advantages OTJ trainers may become "accidental trainers" and may not know how to effectively train employees

(Bartlett, 2003; Guthrie, 2009). However, OTJ training does have the advantages of being highly realistic and no transfer of learning is required (Grossman & Salas, 2011). Furthermore, staff reportedly learn best in the natural environment or OTJ, so on-the-job training is generally the most desirable (Webster-Wright, 2009). If OTJ training is implemented effectively, there is a variety of benefits.

2.4.4 Critical factors that affect training outcomes for all employees

OTJ training is reportedly the most common training provided, with 80% of wage earners undertaking OTJ training annually in Australia (Ridoutt, Dutneall, Hummel, & Smith, 2002). Yet, the factors that influence its effectiveness are difficult to accurately determine because OTJ training is often unplanned. Therefore pre and post training data are often not collected making it problematic to identify when learning needs or goals have been met (Chao, 2014). Nevertheless, some researchers (Gardner, 1972; Gauld & Miller, 2004; Jahr, 1998; Parsons et al., 2012; Punia & Kant, 2013) have identified factors that affect training outcomes including:

- individual characteristics (trainees and trainers);
- work environment; and
- training content

2.4.4.1 Individual characteristics

2.4.4.1.1 Trainees

Punia and Kant (2013) in their literature review of factors affecting training effectiveness suggest individual characteristics of trainees that may influence training outcomes are age, gender, cognitive ability, self-efficacy and motivation.

Increasing *age* often increases skills and expertise including transferring knowledge and desire to assist other staff. It is suggested in most studies that increasing age decreases the ability to engage in reasoning necessary for new learning. That is

younger staff have an increased ability to focus on training (Berg & Chyung, 2008; Krumm, Grube, & Hertel, 2013). The ages of participants in Berg and Chyung's study was 23-61 years old. However, Colquitt, LePine and Noe (2000) meta-analysis of 106 training studies found that any negative relationship between age and learning is seen as manager's perception of trainee's ability rather than a true phenomenon. Furthermore, recent findings from a self-reported questionnaire completed by 221 participants (without disability) did not show any differences in the quantity of work-related learning relative to age (Van Den Ouweland & Van den Bossche, 2017). Therefore, research on age effects on work related learning is inconclusive.

Similarly, while women have been reported as having lower learning levels, other researchers have failed to detect consistent significant *gender* effects. There is a lack of "theoretical rationale" for this demographic (Colquitt et al., 2000, p.3). Hence, research is inconclusive as to whether there are age and gender related effects on trainee's engagement in learning (Berg & Chyung, 2008).

One commonly examined individual characteristic in the training literature is *cognitive ability*. Research has provided strong links to intelligence and learning outcomes (Colquitt et al., 2000). While individuals differ in terms of information processing capacities or cognitive ability, there is dispute about the reasons (Colquitt et al., 2000). Genetic verses environmental influences is one of those debates (Colquitt et al., 2000). One study's review of empirical evidence on genetic and environmental influences on cognition found environment strongly influences cognition (Tucker-Drob, Briley, & Harden, 2013). That is, increases in cognition are based on individuals seeking opportunities for learning and this is based on the environment and their genetic predispositions or personalities. For example, the many facets of general cognitive ability are referred to as 'g' (Ree & Earles, 1991) and include working memory, long-

term working memory, and speed of learning which is important during early stages of task performance (Jensen, 1998).

According to Goertz, Hülshager and Maier (2014) memory and personality are seen as being able to predict training success and are considered a valid predictor across jobs and tasks. Although the authors of this meta-analysis do caution that, their findings were analysed only from 10 occupational studies conducted in Germany with smaller sample sizes.

Self-efficacy refers to both a person's belief in their ability to accomplish a task (Bandura, 1997) and the person's belief of ease or difficulty of performing a specific task (Cheng & Hampson, 2008). Trainees with strong self-efficacy have been shown to have an attitude of exerting effort when undertaking tasks and this may help shape learning outcomes (Billett, 2000, 2001). Billett's analysis was derived from an Australian study that conducted monthly interviews over a six-month period in five workplaces (Billett, 2000). Self-efficacy has been shown to be related to skill acquisition and transfer (Colquitt et al., 2000). Furthermore, organisations can increase trainees self-efficacy and training motivation if they provide information on content and complexity prior to training. If the trainee sees this as realistic training outcomes are more likely to be achieved (Wei-Tao, 2006). People with high self-efficacy set themselves higher goals that translate to actions (Schwarzer, 2014). Closely related to self-efficacy is an individual's motivation (Schwarzer, 2014).

Motivation is attention, interest and inspiration. Motivation is further defined as the process to make a start and assists individuals in taking action and achieving goals (Gopalan, Bakar, Zulkifli, Alwi, & Mat, 2017). Motivation and learning are linked as discovered by the author's research on the 'motivation to learn' of adults over 30 years (Wlodkowski & Ginsberg, 2017). Motivation is powerful, it influences both reasoning

and decision processes as revealed by a meta-analysis of 34 studies exploring the magnitude in which work environment manipulates training transfer (Williams, 2008). A trainee's motivation is an important factor in the effectiveness of determining the effectiveness of training endeavours. Motivation contributes to the effectiveness of training, by influencing a trainee to follow the program, pay full attention, exert energy and transfer what they learn (Punia & Kant, 2013). Furthermore, motivation to learn content can be increased if training on tasks is exactly what the trainee will perform in the workplace (Williams, 2008).

In summary individual characteristics of trainees affects the outcome of training. An individual's personality impacts on their learning by dictating if they seek opportunities for learning. Hence, personality is a vital part of training success (Colquitt et al., 2000). However, motivation may have the most influence (Colquitt et al., 2000). Motivation influences individuals to set learning goals and pay attention during training.

2.4.4.1.2 Trainers

Learning outcomes in part depend on the trainer; however, there is little consensus as to what constitutes effective trainers with a variety of definitions on offer (Tovey, 1997).

An Australian study by Gauld and Miller (2004) investigated the qualifications and competencies of workplace trainers to ascertain relationships between attributes and trainer's effectiveness. The authors highlighted 27 competencies necessary for effective trainers from a literature review which was then validated in a Delphi study. The definition of competency included 27 skills that trainers must possess, for example, develop lesson plans, blend differing training techniques, attend to individual differences and have effective presentation and communication skills. Three hundred and three trainers from The Australian Institute of Training and Development and

National Assessors and Workplace Trainers in Australia were surveyed. It was suggested that trainers need experience and training skills not just content knowledge, for effective training to take place (Gauld & Miller, 2004).

Experience can provide a trainer with important attributes. For example, the ability to: problem solve and reflect; demonstrate correct performance, provide feedback and possess a co-operative communication style (Nor, Saadon, Kowang, Khan, & Fei, 2017). A trainer needs to be sufficiently experienced and knowledgeable to be able to provide corrective action to the trainee (Siegel & Lane, 1982). As it is important that the trainee correctly practice any new skills. Therefore, the trainer attribute experience can lead to successful learning for the trainee.

Trainer's knowledge can be separated into two sets of skills: (1) Subject matter expertise and, (2) Instructional training expertise (Billett, 2001; Burke & Hutchins, 2008; Ghosh, Satyawadi, Jagdamba Prasad, Ranjan, & Singh, 2012). Subject matter expertise means the trainer is comfortable with the information being covered and is able to articulate concepts clearly to trainees (Ghosh et al., 2012). This provides the trainee with quality information. Instructional expertise includes trainers knowing how to transfer information to the learner. Trainers must have knowledge of research-based instructional practices that are beneficial to the trainee's learning. This knowledge of instructional practices is vital for trainers and trainees' success (Lyon & Weiser, 2009) and should be taught to trainers during their training courses (Lang & Fox, 2004). In Australia, the minimum qualification for trainers in all fields is the 'Certificate IV in Assessment and Workplace Training'. Trainers that hold this certificate and Bachelor's qualification are more likely to feel they are competent trainers (Gauld & Miller, 2004).

In addition to the above competencies, trainers should also:

- conduct follow-up or booster sessions with trainees (Punia & Kant, 2013). This provides the opportunity for coaching and practice of new skills that facilitates skills transfer (Burke & Hutchins, 2008);
- assist with facilitating workplace learning by: monitoring workflow and quality, organising work so opportunities for task practice exist and ensure there is a balance between the need of trainees to learn and the need to get the job done (Harris & Simons, 1999);
- ensure good interpersonal skills and rapport (Ghosh et al., 2012). These are significant predictors of trainee satisfaction, and can influence training outcomes by increasing trainee's motivation to learn. A trainer's rapport with trainees encourages trainees to ask questions that then allow the trainer to provide further or clarifying information that aids learning. This further assists in ensuring training sessions are lively and interesting, which aids trainee's motivation; and
- provide clear training goals and measure the effectiveness of training toward meeting goals (Siegel & Lane, 1982). Training techniques have little value if goals are not clearly stated (Annett, 1978 cited in Warr, 1978). The more specific training goals are the more successful the training is likely to be (Schein, 1970). This is because firstly goals provide motivation for the trainee to learn (Gopalan et al., 2017). Secondly, trainers need to be clear on the individual and organisational required outcome, so they can plan and deliver appropriate training. Thirdly measuring goals assists with ascertaining if the goal has been achieved, or if the goal remains unmet and training should be amended (Zander, 1996).

2.4.4.2 Work environment

Factors both within and outside a workplace may affect training outcomes in mainstream workplaces (Punia & Kant, 2013; Solomon, 2001). For example, Ridoutt et al. (2002) study explored the factors that influence the extent of training and actual training activity within organisations. They found that the external economic climate, may affect quantity or hours of training. Additionally, market uncertainty (Blandy, Dockery, Hawke & Webster, 2000) outsourcing of work and shorter contracts all contribute to lower levels of training. While competition of a product or services and a government legislated training level all contribute to higher levels of training. The study surveyed 196 organisations recognised for generally low levels of participation of training. Internally enterprise characteristics such as firm size, type of industry and human resource policies impact workplace training culture.

Culture is seen as espoused values, structures, customs and underlying assumptions (Schein, 1990; Solomon, 2001), displayed in an organisation's policies, behaviour and workplace spaces (Solomon, 2001). The training culture that positively impacts training outcomes is one that embraces continuous learning for both individuals and the organisation (Ridoutt et al., 2002). To do this organisations must embrace strategies that value and include training and development (Ridoutt et al., 2002). Strategies include the first tactic - the actual practicality of offering or providing training. Secondly affording opportunities and incentive for individuals to practise new skills and knowledge (Burke & Hutchins, 2008). Thirdly, using ongoing assessments to establish learning outcomes and link those outcomes to a performance plan (Rama & Vaishnavi, 2012). Finally providing support and supervision (Billett, 2001; Punia & Kant, 2013). Training that includes post training supervision and feedback by supervisors has been shown to be effective in maintaining staff performance (Christian,

1984; Williams, 2008). This is emphasised by the Williams (2008) meta-analysis of 34 studies exploring organisational support that lead to training in the workplace. Williams (2008) found management trained in “relapse prevention” (reversal of old habits) increased transfer of training. Conversely, lack of monitoring of staff resulted in old habits developing after training (Burch, Reiss, & Bailey, 1987; van Ooorsouw, Embregts, Bosman, & Jahoda, 2009).

It seems logical that an organisation with a strong training culture would create opportunities for informal training. However, this was not discovered in Berg and Chyung's (2008) study which surveyed 125 workplace training professionals to ascertain relationships between informal learning engagement and organisational characteristics. The findings did not demonstrate a significant correlation between organisational training culture and individual training engagement. This difference proposes that informal training outcomes may not be inhibited by a lack of training organisation culture. This suggests if a worker needs to obtain specific information to complete a task, they will do so, regardless of whether the organisation has a culture in place to make it easier to learn information or not. Conceivably organisational culture does have an effect but perhaps individual components are the strongest construct (Senge, 1990).

2.4.4.2.1 Training content

The mode of delivery - how and where training is provided may also affect training outcomes. For example, training has traditionally relied on lectures, presentation of written and visual material but this has been proven ineffective for teaching new job skills (Gardner, 1972; Hatlenes & Eikeseth, 2016; Jahr, 1998). Abstract knowledge taught in a different location from the workplace is often applied with disappointing results (Sumner, Domingue, Zdrahal, Millican, & Murray, 1999).

Skills acquired in a lecture room setting may not be transferred or applied in the daily work setting (Jahr, 1998). Jahr's study is relevant to this current study as it explicitly examined the development of efficient staff training programs in the disability field. The study reviewed staff training programs and associated improved client outcomes, maintenance of staff performance and transfer of skills. Training needs to include staff actively performing the responses being trained until they can competently demonstrate the required skills to criterion (Parsons et al., 2012). Equally, OTJ training that is unplanned and performed by relatively unskilled trainers may not be effective (Blandy et al., 2000; Jacobs, 2003). Ideally, structured OTJ training that has undergone planning and forethought is best in obtaining training outcomes. These studies suggest that planned OTJ training in the learner's workplace is the most effective.

In summary, training is any activity undertaken to improve job skills although the effectiveness of OTJ training is reportedly difficult to determine. Furthermore, controversy about what has the most impact on training effectiveness still exists. For example, a trainee's personality and motivation is seen by some as having a greater impact on learning than cognitive ability (Colquitt et al., 2000; Punia & Kant, 2013). In addition, an organisations training culture may or may not be influential in training effectiveness. Research has shown that to be effective training should be on the job with ongoing supervision and support. Furthermore, trainers' instructional expertise and trainees' willingness to learn, impact training effectiveness.

Effective training assists with attaining high levels of skills and is particularly important for those with disability (Bassanini et al., 2005). The following section will specifically examine training for people with disability in employment.

2.5 Training for people with intellectual disability

2.5.1 Historical context of the provision of training for people with intellectual disability

Historically people with severe intellectual disability have been seen as unteachable or untrainable, therefore limiting their role in society including access to employment (Barnes, 1992). Prior to the 20th century, the ‘untrainability’ of people with an intellectual disability was accepted as demonstrated in the names of organisations. For example, ‘Rome State Custodial Asylum for Unteachable Idiots’ (Wolfensberger, 1969) and past Australian institutions, such as, ‘Home for Incurables’, and ‘Blind, Deaf and Dumb Asylum’ with the former name remaining into the 1980s (PriceWaterHouseCoopers, 2011). This view of incompetence persisted well into the 20th century. This has in part led to exclusion from employment and segregated educational and recreational experiences (VicHealth, 2012).

It is argued that belief in the inability of those with intellectual disability still exists (Commonwealth of Australia, 2009; Daley & Rappolt-Schlichtmann, 2018). Research in the area of intellectual disability has challenged this long held belief. Early 20th century enquiry was more optimistic of the learning capacity of those with an intellectual disability. Stating that “imbeciles” could do simple routine tasks under supervision (Lewis 1929, p. 68). In the 1950s, researchers were questioning traditionally accepted generalisations about the abilities of those with lower IQs (Clarke, Lond, & Fliess-Hermelin, 1955; Tizard & Loos, 1954). In 1953 Gordon demonstrated a leap in expectations of the learning capabilities of people with an intellectual disability when reporting “imbeciles” responded similarly on a “persistence task ... to normals” (Gordon, 1953, as cited in Clarke et al., 1955, p. 337). Tizard and Loos (1954) found that the ability of someone with an intellectual disability to initially complete a task did

not predict their ability after numerous practice sessions. The work of Clarke et al. (1955) was one of the first studies that clearly demonstrated that people with an intellectual disability were far more capable of learning vocational tasks than previously considered. Their findings included training “six imbeciles” (those with an IQ 24 to 41 on Stanford-Binet) on increasingly difficult tasks – folding cardboard boxes, cutting insulated wire to exact lengths and soldering a 8-pin television plug. The success of their experiments suggested that “imbeciles could reach and maintain quite unexpected levels of achievement when suitably trained” (Clarke et al., 1955, p. 339) and furthermore minimal supervision was required. They concluded that the distinction between “imbeciles” and others was not in their final ability but in the time taken to achieve the skill.

Marc Gold’s work in the 1960s questioned the simple vocational tasks that people with disability were involved in at the time and this led to the development of his ‘Try Another Way’ training (Galloway & Lecours, 1978). This particular approach is a systematic method of training people with intellectual disability, now referred to as ‘Systematic Instruction’ (Marc Gold and Associates, n.d.). Gold demonstrated that people with an intellectual disability were not only capable of learning skills but complex skills and tasks (Galloway & Lecours, 1978). Components of this approach include limited use of verbal prompts, errorless learning, task analysis, fading and avoiding punishment (Morgan, Kilsby, & Chishom, 2011).

Bellamy’s work in the 1970s continued to build on these earlier findings by demonstrating that it was possible to increase the work rates of those with severe intellectual disability in an applied vocational setting. Bellamy increased the rate of production by those with severe intellectual disability of a 52-piece cam switch actuator using principles of operant behaviour modification (Bellamy et al., 1975).

In the 1990s, Baroff (1999) acknowledged that lower IQ impedes school progress, but limited reading and arithmetic skills will not necessarily prevent an adult from maintaining part- or full-time employment. Baroff suggested that skills that are important in work settings include “ability to accept supervision, cooperate with others, be punctual and reliable, work at an appropriate rate, and meet work quality standards” (Baroff, 1999, p. 20). For some there is acceptance that people with severe or profound impairment can learn tasks consistent with employment (Bellamy et al., 1975).

Today, strong research evidence supports that adults with intellectual disability can learn workplace skills (Cain, 2005; Cannella-Malone and Schaefer, 2015;). For example, Cannella-Malone and Schaefer (2015) reviewed sixty-two studies that included 75 experiments published between 1969 and 2014. These studies examined included teaching those with significant intellectual disabilities (IQs of 40 or below) a range of vocational skills. Strategies utilised to teach the skills included task analysis, prompting and video-assisted and self-monitoring training. The review found 95% of the experiments reported participant’s success in learning vocational skills such as assembly, janitorial, restaurant tasks, clerical and packaging. Most of the studies used single-subject research design hence the authors encourage more research to ensure the generalisability of the studies.

Further to research in disability employment, a new movement emerged aiding the belief that people with intellectual disability could learn. This movement included findings from the ‘Wood Report’ (1929) and stated that intellectual disability was a social construct as opposed to an inability to be educated (Lewis, 1929). Furthermore, research on the heritability of IQ conducted by Cyril Burt in 1909 was discredited after Burt’s death in 1971 (Mackintosh, 1996). Burt’s research was based on an assumption that IQ is hereditary and fixed but Burt was found to have falsified his findings. More

recently, research shows environment plays a large part in learning (Tucker-Drob et al., 2013).

The question today is not of the learning capacity of those with intellectual disability but the ability of trainers to teach (Cain, 2005) i.e. to apply these strategies consistently and effectively. As McLeod (1985, cited in Cain, 2005, p. 8) has stated:

...instead of saying, 'These people cannot learn and cannot be trained,' we are now saying, 'We have not been competent enough to teach.' The failing is not with the severely handicapped but with us.

People with intellectual disability have capacity to learn a variety of tasks. If effective training is provided to employees with intellectual disability, they can increase their workplace skills.

2.5.2 Importance of training for people with intellectual disability

2.5.2.1 Employees with intellectual disability

Research has shown that people with intellectual disability are rated highly as employees by employers (Graffam et al., 2002; Powers, 2008). Both supervisors and employers describe employees with intellectual disability as punctual, reliable, motivated and honest, rating them highly on safety and attendance (Reisman & Reisman, 1993; Tse, 1994). However, the same studies highlighted that employees with intellectual disability were also rated lower than average employees on productivity (Graffam et al., 2002). Workplace skills important for people with intellectual disability to attain are generally those associated with skill acquisition and productivity. These skills included increase rate while maintaining accuracy, continue working despite distraction and work constantly without waiting for direction or reinforcement (Shearman & Sheehan, 2000). If people with intellectual disability were provided with training to increase speed and accuracy, employers would have a high performing

employee that is productive, reliable and who costs marginally less to maintain in the job (Unger & Kregel, 2003).

2.5.2.2 Training for people with intellectual disability

For those with intellectual disability, productivity skills development and training are the key to increased wages and hours of work and job retention (McDonnell, Nofs, Hardman, & Chambless, 1989; Powers, 2008). Employment training should assist with inclusion in employment and producing technical skills and adaptive behaviour (Gomes-Machado, Santos, Schoen, & Chiari, 2016). The purpose of training is to enable an employee to perform the relevant steps in a task accurately and without (or minimal) assistance. Despite this case for providing training to those with disability, most people with disability fail to get any vocational training at all (Powers, 2008). This has led to calls for improved training opportunities to ensure increased employment productivity and reasonable incomes for people with disability (WHO, 2011).

It is acknowledged that it is common for people with intellectual disability to have workplace challenges including slower than average learning of new tasks, impaired memory and motor performance (Lysaght, Ouellette-Kuntz, & Cheng-Jung, 2012) and difficulties when decoding information (Hurtado, Jones, & Burniston, 2014). Modifications in the way information is presented are therefore necessary to facilitate comprehension (Oldreive & Waight, 2013). Vocational trainers need to consider the different ways in which an individual employee with disability learns and what works best for their learning (Arnott, 2011).

Training strategies that support an employee with intellectual disability with their work tasks has been researched and documented for many years, starting as early as the 1950s (Clarke et al., 1955). The importance of the use of training strategies is more recently included in the Australian National Disability Standards which calls for

“services and supports to be delivered and reviewed to build on individual strengths and enable individuals to reach their goals” (Australian Government, 2013a, p. 15).

Furthermore, employment supports are to provide reasonable adaptations that allows an individual with disability to perform a job that is exclusively negotiated and developed for them (Griffin, Hammis, Geary, & Sullivan, 2008).

A key element of current disability employment training is the model ‘place-then-train’ approach to employment. This approach emphasis learning on the job and on-going supports, replacing an previous emphasis on prerequisites (Wehman, Revell, & Kregel, 1997). Therefore, vocational trainers need a ‘toolbox’ of strategies to support employees to learn tasks in the workplace.

2.5.3 Research on training strategies

A variety of strategies relevant to training employees with intellectual disability in the workplace is highlighted in this section. A literature review was conducted which included searching relevant articles, books and websites that list effective practices, for example, the National Technical Assistance Center on Transition (NTACT) (National Technical Assistance Center on Transition [NTACT], 2016).

NTACT listed effective instructional employment practices that were evaluated regarding the amount, type and quality of research conducted. They included: response prompting; community-based instruction; task chaining; self-management strategies; least-to-most prompting; simulations; video modelling; constant time delay; simultaneous prompting; mnemonics; backward chaining; most-to-least prompting; peer-assisted strategy and progressive time delay. The current study did not include community-based instruction and simulations because this study focused on employees with intellectual disability who were already employed. Therefore, simulating employment settings were not strategies necessary for vocational trainers to utilise. The

other NTACT referenced strategies that are relevant for people with intellectual disability who are in employment are examined in the following section (although names of strategies differ).

There is documented research on the effective use of training strategies for those with intellectual disabilities. However, other studies appear to raise questions around the validity of successful training strategies, especially those utilising operant based training strategies to teach people with disability skills. Reid, Phillips and Green's (1991) critical review of 39 studies utilised training procedures to teach a variety of adaptive skills, raising an arm, eye blinks, head moving, and pressing a lever to those with profound disabilities. The study found that training did not result in either behaviour changes or quality of life for those with severe disability. However, the ineffectiveness of these training strategies may have alternative explanations. For example, postural control skills taught in this study should be taught using approaches with a neuromotor emphasis, not operant strategies alone (Reid et al., 1991). Furthermore, the authors point out that staff may not have effectively applied the strategies utilised in the studies.

Contributing to the established body of knowledge in assisting people with disability to facilitate their job performance is Gilson, Carter and Biggs' (2017) recent systematic review. They examined 56 intervention studies teaching employment skills to 766 school students (aged 14-22 years old) with varying disabilities (i.e. autism, Asperger syndrome, Pervasive Developmental Disorder–Not Otherwise Specified [PDD-NOS] or intellectual disability). The review reported on the use of 21 instructional methods. These approaches were as follows: (1) performance feedback (2) device-assisted instruction (3) response prompting (4) community-based instruction (5) task chaining (6) live modelling (7) self-management strategies (8) physical guidance (9) least-to-most prompting (10) simulations (11) video modelling (12) constant time

delay (13) simultaneous prompting (14) covert audio coaching (15) mnemonics (16) backward chaining (17) most-to-least prompting (18) peer-assisted strategy (19) progressive time delay (20) choice-making (21) reinforcement contingency. These methods were further placed into eight intervention approaches based on how the instruction was delivered. The eight intervention approaches were as follows: (a) self-management instruction, (b) video-based instruction, (c) audio-based instruction, (d) picture and tactile-based instruction, (e) direct instruction, (f) augmentative and alternative communication (AAC)–assisted instruction and (g) simulation instruction, and (h) peer-delivered instruction.

All eight interventional approaches were found to have strong positive effects on learning employment skills with only 25% of studies showing a weak effect.

Employment skills taught included interactions with others, clerical, assembling, cleaning, sorting, appropriate behaviour, and retail and restaurant tasks. The review also examined the effect on generalisation, fluency and maintenance and found the strategies successful to train employment skills across a variety of settings and tasks. Limitations of the review include some studies not reporting on the severity of cognitive impairment. This lack of description means interventions that may be particularly suited for specific individuals was not highlighted. Furthermore, a thorough description of intervention procedures was also missing from some studies. Thus, not providing salient information on what might constitute quality intervention. This review focused on students in middle or high schools not adults currently in employment. All studies were conducted in the United States with a lack of similar intervention studies conducted in other countries. Studies included in the review were published between 1983 and 2015, indicating a strong existing of evidence based interventions to promote acquisition of employment skills.

The evidence base for some workplace training strategies for those with intellectual disability is contentious. Some authors have indicated research has only been descriptive (Odom et al., 2005) with some of the most promising practices based on theoretical literature not necessarily empirical studies. That is, there is a need for stronger evidence of the effectiveness of training strategies (Migliore, Butterworth, Nord, Cox, & Gelb, 2012; Singh, 2016). While Courtade, Test and Cook (2015) claim there has been progress in research for evidence based practices for those with severe intellectual disability.

Cannella-Malone and Schaefer (2015) reviewed 62 published articles (with 75 experiments) that taught vocational skills to individuals with significant disabilities published between 1969 and 2014. They found that while most participants were successfully taught to engage in a variety of vocational skills in a range of settings, only 15 new studies had been published since 2000. This indicates a decrease in research on teaching vocational skills to individuals with significant disabilities (Cannella-Malone & Schaefer, 2015). The authors hypothesised several possible reasons for the decrease in research in this area. For example, there may be a greater focus on those with milder disabilities, challenges associated with researching in applied settings and lack of financial support for this type of research. Whatever the reason, the trend of research is going directly against the need to increase employment for those with significant disability. This need is due to high rates of unemployment of people with severe disability (ABS, 2016) the projected increase in numbers in the coming years (PriceWaterhouseCoopers, 2009) and the shortfall of all workers in Australia (State Government Victoria, 2013).

2.5.3.1 Training strategies

Reviews of training strategies utilised to increase workplace skills for people with intellectual disability have highlighted limited recent Australian research. Hence, there is an imminent need for such research due to the need to increase employment rates for those with severe disability. The following section will address some of the common training strategies that have been included in the above reviews as well as being utilised by vocational trainers in disability employment in Australia. Moreover, the researcher of this study has over 20 years' experience in working in disability employment and is a university lecturer in the area of disability employment and direct instruction. Therefore, strategies listed in the following section were gathered through a combination of research and professional experience about what is utilised in the field of disability employment. An overview of strategies in research conducted with people with intellectual disability in vocational settings or training of vocational skills in the special education environment is provided here. In total 20 strategies described below and are as follows: 1) Task Analysis, 2) Prompts/cues, 3) Fading, 4) Reinforcement/rewards, 5) Show and tell, 6) Modelling, 7) Shaping, 8) Match-to-sample, 9) Penalty/punishment, 10) Positive Behaviour Support, 11) Adaptation, 12) Self-instruction, 13) Pictures/storyboard, 14) Data collection, 15) Individual Training Plans, 16) Video modelling, 17) Natural supports, 18) Job matching, 19) Mnemonics, and 20) Job carving. Due to the lack of recent empirical literature (Ellenkamp et al., 2016), the following section about training strategies utilised in disability employment is often descriptive and cites research more than 20 years' old. For a brief description of each of the strategies and stages of learning, refer Appendix [A].

2.5.3.1.1 Task analysis

Listing a task into its smaller sequential steps.

Task analysis is utilised by a variety of industries and professions for example industrial systems (Kirwan & Ainsworth, 1992) and special educators (Carter & Kemp, 1996). One of the most extensive studies to incorporate the use of task analysis in the disability field was the California Project (Galloway & Lecours, 1978). The California Project popularised the ‘Try Another Way’ approach (now known as Systematic Instruction). A key element of Systematic Instruction is the task analysis of components of a job. The California Project was conducted in the USA spanning 2 years, beginning in 1976. It involved 28 agencies, with 109 trainers working with people with ‘developmental disabilities’ being taught the ‘Try Another Way’ approach. Those with the most severe learning disability were purposely chosen to be the recipients of staff training. This study had a seminal impact on demonstrating that people with intellectual disability have much more potential than is generally expected (Department of Administration Council on Developmental Disabilities, 2017). During the California Project, 1888 people with developmental disability were successfully trained in 2766 ‘life skills.’ This included vocational skills, such as, a variety of office tasks, carpentry, upholstery, using a cash register and various packaging and sorting tasks. This study did not exclusively focus on disability employment skills nor those with intellectual disability. Staff participants included those working in residential settings, schools and hospitals. The definition of developmental disability included those with intellectual disability but also with solely autism, epilepsy and cerebral palsy. The Try Another Way approach incorporates other strategies, such as use of prompts, and limited verbal communication and limited eye contact by the trainer, that ensures the trainee is focused on the task and learns the skill as quickly as possible. Therefore, the study did not establish the usefulness of task analysis as an autonomous strategy.

2.5.3.1.2 Prompts/cues

Physical, gestural or verbal reminders.

One of the most important tools that allows a high rate of learning success for people with an intellectual disability is the prompting hierarchy (Libby, Weiss, Bancroft, & Ahearn, 2008). In two studies, ten employees with moderate to severe intellectual disability received training on how to construct shipping boxes (using glue) at their place of employment (Maciag, Schuster, Collins & Cooper, 2000; Cooper, 2000). Eight employees requiring between 5 to 20 sessions were successfully taught how to construct shipping boxes utilising prompts. Moreover, maintenance of the skill over a period of 10 weeks was also strong (Maciag et al., 2000). This study was important because no previous experiments using prompts had been conducted in a vocational setting and none had included adults. While this study demonstrated the effectiveness of prompts as a training strategy, the trainers were researchers. There is a possibility that if disability employment staff were implementing training the results may be different (Maciag et al., 2000).

2.5.3.1.3 Fading

As the skill is learnt, the prompt or cue is faded to a less obvious prompt or natural stimuli.

Fading is a procedure aimed at progressively increasing independent task completion. Lancioni (1994) reviewed procedures that have been used to help people with severe and profound learning disability increase their activity engagement in employment independent of staff supervision. Six studies were included in the review. Each study had small numbers of participants with intellectual disability, two studies had three participants and four studies had one participant each. Ages ranged from 7-23 years. Lancioni (1994) stated all studies reported successful acquisition of either a

vocational or a daily living task. Successful outcomes included increases in work rate and being able to complete tasks within a time limit. While all studies claimed success, one study participant still required staff to provide prompts to complete the task. Hence, the goal to increase activity engagement was achieved; however, independence in the task was not achieved.

2.5.3.1.4 Reinforcement/Rewards

Providing something the employee with a disability enjoys other than their usual pay i.e. praise.

Off task and atypical behaviours are issues that some employees with disabilities encounter (Carr et al., 1999). One of the more recent studies to address these behaviours using reinforcers in a work setting is Saunders, McEntee and Saunders (2005). The study involved three adult men with intellectual disability attending an activity centre that taught work skills. All participants had been recommended for involvement in the study by agency staff because they engaged in low rates of work and high rates of behaviour that precluded them from work. These included self-injury, aggression, leaving the workstation, and other off-task behaviours. The work task participants were engaged in shredding pieces of paper using an electric paper-shredding machine. Food and drink were used as reinforcers. Results showed reinforcers were intermittently provided contingent on task engagement, increased on-task behaviour and minimised undesirable behaviour. However, this study involved trials being conducted in a controlled setting, that is, a simulated workstation. In typical vocational settings, employees with intellectual disability would usually have more distractions than was afforded in this study. Thus, the study outcomes may not be able to be replicated in other disability employment settings.

2.5.3.1.5 Match-to-sample

Using a correct example of a completed item as an example of how the task should be completed.

Rehfeldt (2011) conducted a descriptive analysis of 26 empirical articles on ‘stimulus equivalence’ (often referred to as match-to-sample) published in the *Journal of Applied Behavior Analysis* from 1992 to 2009. Twelve (46%) of the studies were conducted with participants who had a diagnosed developmental disorder including intellectual disabilities, brain injury, Down syndrome and autism. Studies were conducted in a variety of settings including workplaces, schools, university laboratory and residential settings. Skills taught included picture naming, matching words to pictures and pictures to words and requests for a desired item or activity. All studies reported successful task attainment using match-to-sample as the training strategy. Like earlier mentioned research, some of these studies were conducted under laboratory conditions. With differences in research and practice settings, it cannot be assumed that research conducted in laboratory conditions will transfer to real-world practice settings (Chorpita, 2003).

2.5.3.1.6 Positive Behaviour Support (PBS)

Using approaches to change an unwanted behaviour.

Behaviour suited to the appropriate work context is necessary if an employee is to perform the work satisfactorily (Gomes-Machado et al., 2016). Furthermore, negative perceptions of possible behaviour challenges is reported to adversely affect job opportunities for those with intellectual disability (Cunnah, 2015; Gormley, 2015). Therefore, the relevance and importance of staff possessing skills in the area of providing Positive Behaviour Support is paramount. Despite the need for disability employment staff to possess PBS skills, research related to the use of positive behaviour

support has primarily focused on children with disability, with limited research in adult populations (West & Patton, 2010). Few studies in the areas of PBS and employment have emerged but those that have include Kemp (1994) and West and Patton (2010) described below.

Kemp's (1994) PhD study involved three participants in employment with intellectual disability and autism. Their behaviours included frequent aggression, self-injury, property destruction and tantrums. The PBS strategies implemented incorporated functional communication training and building tolerance for delay of reinforcement. The intervention resulted in increased time spent at work without behaviours of concern and increase in the completion of work tasks. The intervention chosen was based on literature recommendations and specific details of the behaviour of concern. However, it is likely that there were other strategies (not utilised) that would also have been effective. Therefore, several studies would be necessary to validate this study's intervention.

West and Patton's (2010) PBS intervention involved four individuals aged 34-41 years with intellectual disability. Their behaviours of concern were so severe they were not initially considered for employment. Using the PBS framework the individuals with disability were taught skills (distributing flyers and washing tables) using task analysis, reinforcers (verbal praise) and fading. The intervention was comprehensive including developing a Functional Behavioural Assessment, data recording and providing staff with training to be able to implement interventions. After training, there was no longer any existence of the behaviour of concern occurring in the employment setting (West & Patton, 2010). The study did not ensure interrater reliability checks or social validity. Only anecdotal reports were used to guide the intervention more robust data could have provided more accurate insights.

2.5.3.1.7 Adaptation

Providing a modification, technology or jig to aid the learner to be able to complete a task.

Adaptations play a major role in acquiring valuable skills (Downing, 1996). Adaptations can include: (a) adjustments or modifications such as making changes to the job and workload (b) assistive technology (AT) – both low and high tech options. Assistive technology has the potential to affect employment outcomes for those with cognitive disabilities (Jakovljevic & Buckley, 2011; Sathiyaprakash, 2013). Sauer, Parks and Heyn (2010) conducted a systematic review of employment outcomes of adults with intellectual disability who use assistive technology. They sought to answer two questions: ‘What were employment outcomes of those with intellectual disability who use AT in the workplace’ and ‘Which AT interventions are documented to have a positive impact on employment outcomes?’ They examined nine articles that included 154 participants using AT. They found positive outcomes on job performance which included higher rate of accuracy and task completion, increased independence and generalisation of skills. Two trends in research in the use of AT devices were discovered. Firstly, a move from low to high-tech assistive technology. Secondly, prompts were being delivered using tape recorders and computers or tablets. Studies included in the review included the age groups 7-65+ as the review was examining vocational tasks, not necessarily those currently employed in the workplace. There were small study participant numbers in each of the studies (no more than 10 participants in any experiment). With such small participant numbers, generalising results is difficult. The studies included did not measure maintenance of skills beyond 6 months. Often the use of AT was on job tasks that involved limited steps. These confines mean reporting on the success of using AT is somewhat diminished.

2.5.3.1.8 Self-instruction

Teaching an employee with disability to use self-talk to complete a task.

Self-instruction is a self-management strategy with the goal of a person being able to independently complete a task (Smith, Shepley, Alexander, & Ayres, 2015). Self-Instruction was used successfully with two supported employees with mild and moderate intellectual disability working in a café. The employees were reportedly about to be fired because tasks were ‘continually neglected’ and ‘not performed satisfactorily.’ The employees failed to wipe counters, restock supplies, stared into space, stopped to rest too frequently, stood idly and wiped counters unnecessarily. After intervention, the employees spent more time working and met or exceeded ‘normal’ production standards (Rusch, Morgan, Martin, Riva, & Agran, 1985). Four statements (interrogative, one answer, guiding statement and self-reinforcing statements) are utilised in self-instruction. It is unclear if all statements are necessary or which of the statements provide the most positive effects (Karlan & Rusch, 1982). Previous studies in school settings have found that generalisation of a skill taught using self-instruction is poor (Burgio, Whitman, & Johnson, 1980; Johnston, Whitman, & Johnson, 1980).

2.5.3.1.9 Pictures/Storyboards (visual aids)

Pictures to demonstrate the correct sequence of a task.

Visual aids can assist people with ID with vocational tasks by reducing their need for supervision (Fields & Demchak, 2018). The advantages of utilising visual aids as a training strategy is that they are simple to use and not time consuming to implement (Carson, Gast, & Ayres, 2008).

Wacker, Berg, Berrie and Swatta (1985) trained three participants with severe to profound learning disability three tasks each using pictures. Vocational tasks included dusting tables, cleaning windows, envelope stuffing and an assembly task. Pictorial cues

were in booklet form showing each of the steps in the tasks. The results showed that each participant learned to perform the tasks trained. Once the first task had been learnt, all students generalised their use of the pictures across settings without additional training. During follow up data collection, two of the students were also able to maintain their learning with accuracy even without the visual aid. A variety of other strategies were utilised during the training i.e. demonstrations, correction, and praise. Again, these highlighted the difficulty in establishing the autonomy of any one strategy.

Two further, more recent studies taught vocational skills to school students using visual aids (Carson et al., 2008; Fields & Demchak, 2018). Fields and Demchak (2018) taught seven students to work and manage an online café microenterprise. Three students with mild to moderate intellectual disabilities, ranging in age from 18-20 years participated in the study. Visual supports included: order forms, how to make the coffee, how to greet customers, safety and work standards, café pricing information and customer purchase history. This study found that visual supports can assist learners with ID a range of complex and interrelated vocational tasks. A constraint of the study was the strict inclusion criteria. Researchers reported exclusion of potential participants because of their limited verbal skills and their inability to independently complete vocational tasks. Such strict inclusion/exclusion criteria mean that these findings cannot necessarily be transferred to those with severe disabilities.

Carson et al.'s (2008) study states a lack of research evaluating photo activity schedules as supports in vocational settings. The study took place in both a school setting and a local Wal-Mart store (vocational setting). Tasks at Wal-Mart included hanging pants, re-shelving socks, folding/stocking towels and hanging shirts. After training five Wal-Mart managers were surveyed. They reported that student employees had learned to complete new tasks using the picture activity schedule book and visual

aids would be an easy strategy to implement. A limitation of the study was that researchers stood near the student employees while they were completing/learning tasks and the researcher's presence may account for the student's increase in productivity.

2.5.3.1.10 Individual Training Plans (ITPs)

A record of what the learner would like to learn or is learning.

ITPs are a record of the goals that a learner would like to achieve. Goal setting is a well utilised tool in a variety of service areas. For example, a systematic review of goal setting in physical rehabilitation settings found ITPs to be reliable and valid, although empirical support was limited (Hurn, Kneebone, & Cropley, 2006). However, studies in school settings and residential services have found that ITPs miss including key components, have no performance criteria, and do not address areas of identified delay or need (Greene, 2017; Pretti-Frontczak & Bricker, 2000; Shaddock & Bramston, 1991; Stancliffe, Hayden, & Lakin, 2000).

McDonnell et al. (1989) conducted research in disability employment. This included 120 employees with disability aged 22-66 years (93% had ID). Their study established correlations between ITPs and outcomes for employees with disabilities (wages, hours, job retention and level of integration). Their data analysis incorporated three phases (1) descriptive statistics (2) correlations and (3) regression analysis. They found that disability employment services that developed Individualised Training Plans improved outcomes for employees with disability. Success was accredited to ITPs encouraging staff to continually focus resources on improving employment outcomes rather than accepting job placement as the criterion of success for the employee with disability. However, these findings need to be considered with caution since the author reported that analyses of data does not allow conclusions of direct cause and effect

relationships. This implies that further research of the impact of ITPs on the effectiveness of supported employment programs is required.

2.5.3.1.11 Video modelling

Video recording correct behaviour then learner watches the video on numerous occasions.

Video modelling involves a learner watching a video of a desired behaviour. This has several advantages when training an employee with disability. For example, an employee can learn a new skill without direct instruction from staff. Additionally the intervention itself may only take two to five minutes of viewing by the learner a week (Buggey, 2009).

Studies utilising video modelling to teach skills to those with disability are wide-ranging. Studies include those conducted with intellectual disability learning daily living skills (Cannella-Malone et al., 2011) participants with autism (Gelbar, Anderson, McCarthy, & Buggey, 2012; Kellems & Morningstar, 2012) and students with ID (Kagohara, 2011).

However, those studies conducted with those with ID in employment settings are limited. One of the few studies that used video modelling with adults in an employment setting was carried out by Dowrick and Hood (1981). Video self-modelling (VSM) was used to improve production rates at a workshop for 15 adults with physical disabilities. Tapes were edited so that each person was shown completing work at approximately, six times his or her actual base rate. This resulted in increased productivity by 15%. The authors caution enthusiasm over their findings stating that further empirical research needed to be conducted, in part because long term effects of VSM had not been established.

Goh and Bambara (2013) conducted the only study that isolated the use of video modelling and not combine other strategies with VSM. The study included three participants with ID. Two worked at a thrift store and one at a department store. Two participants were taught three new vocational skills and one participant was taught two new skills using VSM. Results showed that all participants increased their performance with VSM alone. However, results were variable and substantial improvements were recorded when VSM was coupled with feedback and practice. The authors recommend that individuals have some prior experience with the target job task before VSM is implemented as this may assist learning. They also found that visual and auditory information simultaneously assist with the success of the video. Employees were all learning different tasks and this may account for some of the varied results. Further research on shorter or longer tasks and different tasks of varying complexity was recommended.

2.5.3.1.12 Job matching

Employee's interests and employer's needs are matched.

Job matching involves matching the employee's interests with the employer's needs. A discussion of two studies in the area of disability employment and job matching follow. Firstly, Persch, Darragh, Cleary and Tanner (2015) conducted a mixed methods study. They conducted a survey and then focus groups with key stakeholders working with ID involved in the job matching process. Despite revealing that current job matching practices are highly variable and lack consistency, they found that stakeholders who utilise consistent, data-driven processes for job matching are likely to observe positive outcomes. Although these outcomes were not defined, and this study's details were minimally reported.

The second study is by Hall, Keeton, Cassidy, Iovannone and Griffin (2016). Their study included four 19-20 year-old students with developmental disabilities during work experience. They matched participant's preference for job requirements and participant skills levels. Participants then were placed in 30-minute sessions of either high preference, high-matched job or low-preference, low-matched jobs. Data collected on productivity, accuracy on task performance and job satisfaction found that generally high-preference, high-matched jobs were associated with higher productivity, accuracy and satisfaction. However, generalisability of results are limited due to restricted participant numbers, sessions and range of tasks.

2.5.3.1.13 Data collection

Collecting information on details of work the employee completes.

The collection of data is important to make decisions about instructional effectiveness (Storey & Miner, 2011). Hinton and Ballard (1992) described the strategies used by four staff when teaching people who have intellectual disabilities in residential, community and two vocational facilities. They compared staff teaching methods with the strategies taught in staff training courses. Study data were collected during 3 months of 130 hours of participant observation. The study found that staff did not collect and record data. However, staff were still aware of the learner's progress. Observations from both supervisors and researchers reported that staff were competent trainers despite their lack of data collection. However, these observations were subjective and more objective data needed to be collected. While data based strategies are one way of teaching they are not the only way, nor the preferred strategy chosen by staff (Hinton & Ballard, 1992).

2.5.3.1.14 Other strategies

Further strategies either taught to or utilised by vocational trainers are predominantly researched in areas other than disability employment or do not include empirical research.

Modelling/demonstration: Providing a demonstration of the required skill with no verbal explanation. Imitation or modelling has received considerable experimental and theoretical attention spanning several decades including the early work of Bandura (1962). However, much of the research is conducted with school age- children with disability (Baer & Sherman, 1964; Garfinkle & Schwartz, 2002).

Show and tell: Demonstrate the task and explain as you demonstrate. Show and tell is a method of training predominantly researched in regular workplaces but utilised extensively as a training method (Molnar & Watts, 2000).

Shaping: Rewarding close approximations of required behaviour. Shaping is reported as having little applied research being mainly qualitative in nature and “more an art form than a science” (Galbicka, 1994, p. 739).

Penalty/Punishments: Offering an undesirable consequence for a behaviour. Recent studies in the area of punishment and those with ID in employment settings are limited. Despite the negativity associated with punishment, studies have found that staff continue to rely on punishment (Carr, Horner, & Turnbull, 1999; Horner, Carr, Strain, Todd, & Reed, 2002; Snell, Voorhees, & Chen, 2005).

Natural supports: Training co-workers in the employee’s workplace to provide support and training to the person with a disability. In terms of research there is little within the area of natural supports strategies (Wehman & Bricout, 1998). Additionally, Test and Wood (1996) emphasise the potential problems of having natural supports as policy (within the USA) without empirical support for practice.

Job carving: Finding tasks that an employee with a disability can complete from other jobs. There is information providing descriptions and the process of job carving (Graff, 2013; Griffin, 1994; Luecking, Cuzzo, & Buchanan, 2006; Nietupski & Hamre-Nietupski, 2000) however while job carving offers promise there is still a need for research to expand (Nietupski & Hamre-Nietupski, 2000).

Mnemonics: The use of patterns of letter, or associations that assists with memory. There have been several reviews of studies utilising mnemonics as an instructional strategy (Bier et al., 2015; Cook, 1989; Riesenber, Leitzsch, & Little, 2009). However, these studies have been conducted primarily with children and adults without learning difficulties. Cook's (1989) review includes studies that have participants with both brain injury and those with intellectual disability. They were taught to recall word lists and shopping lists and directions respectively. It does not appear that any studies with those with intellectual disability in employment have been conducted.

When teaching skills, it is also essential to consider the four different stages of learning: acquisition, fluency, maintenance and generalisation (Brown, Anderson, & De Pry, 2015) together with job rotation (variability), which is important for career development (Campion, Cheraskin, & Stevens, 1994). These five aforementioned practices assist employees with disability to maintain employment. For brief description of each, refer Appendix [A].

In summary despite early 20th century negative beliefs and low expectations of people with intellectual disability, they are both good employees and can learn workplace skills. However, they may require a significant degree of individualised on-the-job training to be successful in the workplace (AFDO, 2010). The 20 strategies discussed above offer vocational trainers a toolbox of approaches to provide

individualised support to employees with disability to meet their career objectives.

However, some of the research into these strategies has been conducted in laboratory or non-employment settings, with small numbers of participants. Some strategies lack empirical evidence, offering only descriptive details. Despite this, other studies reveal highly successful outcomes for those with intellectual disability in employment settings.

2.5.4 Current state of Australian disability employment training

2.5.4.1 Open employment and ADEs

In Australia, people with disability are able to receive employment supports from a variety of not-for-profit organisations, which are divided into (1) Disability Employment Services (DES) or Open employment and (2) Australian Disability Enterprises (ADEs). These services receive funding from the Commonwealth Department of Social Services (DSS). Funds for disability employment supports are also more recently available through an individual's NDIS (National Disability Insurance Scheme) Plan (NDIS Rights, 2018). Service providers and funding bodies have been encouraged when preparing for the new NDIS environment, to look at ways to improve service provision and increase benefits for workers with disability (Bartolo, 2012; Department of Social Security, 2017).

Open employment services assist people with disability to gain and maintain jobs in the general workforce. Sometimes employees with disabilities will receive the same pay and conditions as their co-workers with disability. However, there is provision for employees with disability to be paid a pro rata wage. The SWS (Supported Wage Scheme) is a productivity-based wage system that assesses an employee's level of productivity and the wage is calculated accordingly. Employers are also able to access wage subsidies and financial assistance to make necessary workplace modifications for employees with a disability.

In contrast, *ADEs* are for those people with disability that need ongoing employment support and the award wage is deemed unlikely. For many years, ADEs have been accused of underpaying employees with disability. In 2012 a class action was brought against the BSWAT (Business Services Wage Assessment Tool) that calculated employees with disability wages using productivity and competency-based calculations. This has since been deemed discriminatory and contravening the Australian Disability Discrimination Act (Department of Social Security, 2017). Subsequently, in excess of \$100 million has been allocated for compensation to those underpaid under the BSWAT (Australian Lawyers for Human Rights, 2017). To date many ADEs are still trying to find a suitable way to calculate wage rates, with some adopting the SWS.

2.5.4.2 Training provision in ADEs and Open employment

Both ADEs and Open employment have received feedback that reports dissatisfaction with training provided to employees with disability (Department of Social Services [DSS], 2014; Families Housing Community Services and Indigenous Affairs [FaHCSIA], 2011). Two Australian Government reports (FaHCSIA, 2011; DSS, 2014) have revealed that people with disability are themselves not satisfied with the training they are receiving.

The FaHCSIA report (FaHCSIA, 2011) report - Advisory Group: Vision for Sustainable Supported Employment, provided recommendations from experts from all parts of the Australian disability sector on the way forward for ADEs over a 10-year period. This report considered a Discussion paper released by the Australian Government in September 2010 that received 600 written submissions from people with disability, parents/carers, service providers and peak bodies and advocacy agencies. Of these submissions 80% highlighted the need for more training and skill development for employees with disability. Employees with disability requested training so they could

increase skills to gain either Open employment and/or participate in more interesting, less repetitive work (FaHCSIA, 2011). The report also highlighted the need for better training and skills for support staff so that staff can better provide employees with disability appropriate supports. Further action in the report to be considered was a requirement that ADEs report on their performance in training supported employees. These reports would help ensure training outcomes, for example, the effects of training on wage rates.

The second Australian Government report (DSS, 2014) evaluated the outcomes of DES providers (Open employment) focusing on the value of changes implemented in the sector during 2010-2013. The report included a participant survey. Participants were those with a disability that had commenced with an Open employment provider at least 9 months previously. The report looked at four key indicators of participant outcomes, one being skills development. The report highlighted that “DES participants were generally less satisfied with skills development and training than with other aspects of service delivery” (DSS, 2014, p. viii). In fact, of the 2141 respondents, participants with intellectual and/or learning disability reported the lowest satisfaction with this area of service (only 36% satisfied). Training that was being discussed in this report was mainly skills development that should lead to skills transfer and increased employment outcomes. A high level of participant dissatisfaction was due to limited work hours.

2.5.4.3 Australian Disability Employment Services accreditation process

Comments from the two reports about the inadequacy of training provided to employees with disability appear to contradict the Australian Disability Employment Services accreditation process. To meet accreditation, services must adhere to the Disability Service Standards 2007. The Standards are those which the Attorney-General of Australia creates under the *Disability Discrimination Act 1992* (DDA) to specify the

rights and responsibilities in regard to equal opportunity for people with a disability in more detail than the DDA itself provides. Up until the end of 2013 and when the abovementioned reports were completed, the Disability Employment Standards included 12 Standards and 26 Key Performance Indicators (Disability & Carers, 2012). Standard 10 “Service recipient training and support” is what services were accredited under during this period and was dedicated to the training and support needs of employees with disabilities. Each disability employment service receives accreditation in order to obtain government funding. Therefore, any service that received funding had met Standard 10 and was assessed as providing relevant training to employees within that service.

Accreditation may give some assurance about provision of services, in the area of the competency of staff and the training and support of jobseekers. Controversially, the Disability Services Standards has had its detractors and is accused of measuring processes not outcomes (Bartolo, 2012; Muir & Bennett, 2014). Therefore, services during the accreditation audit may be presenting evidence of training however the training may not be necessarily related to providing meaningful outcomes such as skill acquisition, task variability, increased wages and job progression (Bartolo, 2012).

2.5.4.4 Updating of Disability Services Standards

In 2014, the Standards were updated and there are currently six Standards, with no Standard that specifically deals with consumer training. However, the provision of training is now considered to be included in “Standard 3: Individual Outcomes - Services and supports are assessed, planned, delivered and reviewed to build on individual strengths and enable individuals to reach their goals” (DSS, 2013,p.5). It remains to be seen if this change in Standards will affect training provision especially if

vocational trainers (staff) have the same motivation to provide training to employees with disability.

2.5.4.5 Future of Australian disability employment

A popular US system to support employees with disabilities to gain and maintain employment is, 'Customised Employment' (CE). Customised employment has two fundamental underlying principles (1) Everyone can work in Open employment (2) Those with complex disabilities are disadvantaged by traditional job seeking practices (Griffin, Hammis, & Geary, 2007). Customised Employment is a process that matches a person with disability to the needs of an employer, creating a match in a customised job. It is based on identifying the strengths of a person with a disability through a process called 'discovering personal genius' as explained in the Federal Register of the US Department of Labor, Office of Disability & Employment (Griffin et al., 2008). Additionally, CE includes a job development process and ongoing job training and supports (Wehman et al., 2018). CE considers the unique person i.e. their age, type of disability, interests and talents while also recognising geographical location, support systems and resources (Smith, Dillahunt-Aspillaga, & Kenney, 2017). Good job matching leads to both individuals and companies enjoying the benefits of CE which results in employee retention (Riesen, Morgan, & Griffin, 2015). Currently research is being conducted to see how CE can be successfully implemented in an Australian context (Smith, McVilly, Rhodes, & Pavlidis, 2018). Presently Australian disability employment services do not utilise the process of CE, despite its success in the US for improving employment outcomes for those with disability (Riesen et al., 2015). No doubt in part because current Australian disability employment funding focuses on timely outcomes as opposed to long-term job matches (Department of Social Services, 2018a). Two Australian funding sources – School Leaver Employment Supports (SLES)

and the NDIS have the potential to aid in the implementation of CE in an Australian context.

Alternatives to working in either Open employment or an ADE for people with disability is Social Enterprises or establishing their own Micro/Small Business. Social Enterprises are business that have a community benefit or mission. Income is mainly from trade with profit reinvested in their mission (Finding Australia's Social Enterprise Sector, 2010). Micro enterprises usually provide goods or services for their local area, have a small amount of start-up capital and employ less than less than 10 people (Conroy, Irvine, & Ferris, 2009). Micro enterprises have been shown to provide an increase in quality of life and be a viable alternative to both sheltered employment and day activity centres for those with disability (Conroy et al., 2009). For those with disability owning their own business may require supports but these may be purchased through NDIS funds (Community Living Project, 2015).

In summary, disability employment services claim they provide training to employees with disability and undergo accreditation audits that monitor training provided. Despite this, reports and feedback from those with disability receiving services from both ADEs and Open employment have been critical of training provision. Staff knowledge of training strategies is integral to the provision of on-the-job training for those with intellectual disability.

2.5.5 The role of staff/disability vocational trainers

Vocational trainers are known by a variety of terms, for example, job/employment consultants, employment specialist, job developer and job coach. Duties of this role include assisting job seekers or existing employees with disability in both finding and maintaining employment. For example, career planning, job

development and providing long-term job supports including on-the-job training (Migliore et al., 2012).

A vocational trainer's ability to perform their job (provide training) has huge impact on whether a person with a disability is successful in gaining and maintaining employment (Buys, Matthews, & Randall, 2015; Ellenkamp et al., 2016; Horner & Bellamy, 1980). Ellis (1981) asserts there are two variables that affect how much a person with a disability can learn and this learning is influenced by the "quality and quantity of training given" (p. 107). In fact, Inclusion Australia (Inclusion Australia, 2016) states that the highest performing Open employment provider in Australia had qualified staff providing systematic job training to people with disability. However, it has been suggested that more generally vocational trainers may not be performing or providing necessary training and supports to employees with disability (Gold, 1973; Kirby, 1997; Parmenter, 1991).

In fact, studies that have observed training needs for staff working in disability services are critical of trainers in the disability sector both employment and accommodation services. In employment settings there have been calls for vocational trainers to improve their work performance (Byrnes & Lawn, 2013; Wooderson, Cuskelly, & Meyer, 2014). Issues highlighted include trainers not meeting the needs of clients (Byrnes & Lawn, 2013) and spending little time on teaching skills (Bigby, Knox, Beadle-Brown, Clement, & Mansell, 2012). In lieu of findings in employment settings, residential setting findings give us an insight into the amount of time that staff spend on training (1.8%) (Cullen, 1992). Two main areas contributing to trainer's lack of work performance highlighted in literature are work environment and staff characteristics (Wooderson et al., 2014). Work environment factors include staff requiring clear expectations around their role and feedback about their performance. Staff

characteristics that are important predictors of proficient work performance include staff motivation, knowledge and skills. Vocational staff themselves reported skill knowledge as an area of weakness and have in previous studies requested development in the area of on-the-job training (Dempsey & Arthur, 1998; Test, Flowers, Hewitt, Solow, & Taylor, 2004).

In Australia, staff may enter the disability field with no formal qualifications (Department of Training and Workforce Development, 2018). However, there is a variety of qualifications on offer. For example, certification in the following: Certificate III in Individual Support (Disability), Certificate IV in Employment Services, Certificate IV in Training and Assessment and Certificate IV in Disability. Further available study includes Diploma of Disability, Bachelor of Disability & Developmental Education, and Graduate Certificate in Disability Studies.

Curriculum issues and skills training for staff in the disability field has long been an issue in Australia (Annison, Jenkinson, & McNab, 1993). Annison et al. (1993) conducted a survey of lecturers in the TAFE Advanced Certificate in Residential and Community Services, a course offered to workers in intellectual disability services. Forty-eight teaching staff (seven with expertise in disability employment) were surveyed. While strengths of the course were highlighted a series of recommendations were made to address the evidence that graduates were not meeting industry needs. One of the issues highlighted by TAFE lecturers was that course Pass standards were made up of participation and attendance requirements alone. Lecturers complained they wanted to be allowed to fail students for poorly completed assessments. Lecturers also highlighted the need for separate courses that address specifically the needs of residential or vocational staff. Another suggestion was for students to spend more time on placements so they can acquire particular competencies.

An attempt to address disability staff skill deficit was made with the introduction in 1999 of the ‘Disability Sector Training Fund’ and was in direct response to the concerns that staff in the disability field had “significant skill deficits” (Ahlstedt, 2000, p. 11). Existing training and skills development activities were seen to be inadequate, fragmented and of questionable quality. Furthermore, there have been calls for a set of ‘best practices’ or minimum competencies and qualifications for disability support staff highlighted in literature (Test & Wood, 1995; Wheeler, 1990).

A meta-analysis of 55 studies examined the training that disability staff required to improve services to people with disability (van Ooorsouw et al., 2009). Staff in these studies included direct-care staff mainly working in residential homes schools or day-care centres (not employment settings). The analysis revealed that for disability staff to be effective in changing skills or behaviour of people with disability, the training disability staff received needed to have two main components. Firstly, training needed to be of a workshop format. The format should include a variety of training methods such as instruction, videos, role-playing, discussion and practice. Secondly, training for staff needed to include ‘coaching-on-the-job,’ which entailed use of verbal feedback that included praise and correction. The authors acknowledged that the quality of outcome for people with disability is not only dictated by staff training.

Therefore, it is important to acknowledge increasing the qualifications of vocational trainers may not be the only approach to increase their effectiveness. A systematic review of the interventions for improving the work performance of disability direct support staff by Wooderson and colleagues (2014) states that organisations should focus on the environment trainers work in before attempting to change the individual trainer. Environmental factors such as feedback about performance, clear job descriptions and guides of expected performance are equally important to training

effectiveness (Wooderson et al., 2014). Congruently other authors have suggested greater staff supervision, mentorship (Beadle-Brown, Bigby, & Bould, 2015) and support from management as necessary to improve trainers' effectiveness (Iacono, 2010). Beadle-Brown et al. (2015) examined the influence of leadership practice on outcomes by interviewing frontline managers, reviewing paperwork and observations of 58 Australian disability accommodation services. Their findings demonstrated that leaders that mentored, inspired, coached and instructed frontline staff was associated with both enhanced staff practice and outcomes for people with disability.

The provision of quality training to those with intellectual disability has been identified as an issue across both employment and residential settings (Bigby et al., 2012; Wooderson et al., 2014). Skills taught to people with disability in the two settings vary. For example, in residential settings daily living skills are a primary focus while in employment settings productivity skills are necessary. Nevertheless, disability staff lack of provision of training has been highlighted in both residential and employment settings. Existing research examining the factors that influence the quantity of training provided by staff working in disability accommodation services is available. Hence, this may assist with gaining insight into what might impact training employees with disability in vocational settings. These factors include:

1. Quality supervision. While staff need to be trained, supervisors need to monitor if staff are carrying out training and provide feedback (Parsons & Reid, 1995; Windley & Chapman, 2010). Windley and Chapman's (2010) study interviewed eight disability support workers to find out how support workers could best carry out their role of providing training to adults with intellectual disability. They found that supervision that provides continuous modelling, monitoring and guidance is paramount. Supervision can provide

opportunities for staff to put their own training into action by practising skills and is conducive to staff competence (Pachana, Sofronoff, Scott, & Helmes, 2011). Furthermore, supervision encourages staff to evaluate their own performance against their clients (people with disability) goals. It is possible that findings in this study were influenced by several limitations. For example, the researcher worked at the same organisation as staff participants and managers chose staff participants. These factors mean that staff may have been reluctant to disclose any poor practices.

2. Data collection. If direct care staff collect data and then management review the data, this helps to ensure training is provided (Williams, Di Vittorio, & Hausherr, 2003). Training data that should be collected are goals, objectives and training session information. This data helps to decide if a skill has been acquired and what training needs to be provided in the future. Williams and Cummings' (2001) study involving 25 residents with intellectual disability in an accommodation setting, found there was an increase in the number of training sessions provided by staff and an increase in the achievement of goals met when (a) data was recorded and (b) the data was monitored by management. Furthermore, these increases were maintained over a five-year period.

Williams et al. (2003) follow-on study in six group homes involving 72 people with disability and 41 staff provided further positive outcomes when data was collected and monitored. Outcomes were again related to increases in training provision to those with disability. Furthermore, the study found that the gathering of data also provides positive outcomes for both management and staff. Data provides management with an awareness of

staff performance while also removing subjectivity of staff performance. For staff the collection of data meant they assessed the training they provided to those with disability as more effective and it increased their job satisfaction (Williams et al., 2003).

3. Scheduling and selecting of activities. Existing studies have found there was little relationship between resident/staff ratios and service quality (Felce, 1998; Seys & Duker, 1988). Hatton, Emerson, Robertson, Henderson and Cooper's (1996) study used a path analytic approach to calculate factors associated with service quality. The study recorded the frequency, rate and duration of staff/resident interactions. Another finding was that a big determinant of staff/resident interaction was the scheduling of activities. Increases in the provision of training (gestural and verbal instructions and prompts) were more affected by scheduling training than increasing the number of staff (Hatton et al., 1996).

2.5.6 Summary

Today there is recognition that the skills and productivity of employees with intellectual disability are heavily influenced by the quality of training provided by staff. Yet accommodation and employment staff training skills have been called into question. However, staff can only acquire necessary skills if they themselves are provided with quality training which in Australia may be an issue. Furthermore, staff provision of training is influenced by quality supervision, collection of data and scheduling of training, as research in disability residential services has demonstrated. Existing studies in disability employment have highlighted some issues relevant to staff provision of training.

2.6 Existing research in the area of staff use of training strategies with people with intellectual disability in employment

Calls for research into the provision of training by vocational trainers have continued for decades (Dempsey & Arthur, 2002; Ford & Ford, 1998; Johnson & Rusch, 1990; Migliore et al., 2012; Parmenter, 1976). Anecdotally issues have been raised regarding staff provision of employment training for those with disability. However unanswered questions remain. Bunch (2007,p.156) acknowledges the lack of staff provision of training and asks are trainers “unaware, apprehensive or apathetic” about training? Moreover Bunch (2007) requests the gap between what trainers say they do and what they do be explored.

In 1973, Gold provided a commentary on the status of research on disability employment training up to 1971 (Gold, 1973). Gold a strong advocate for the use of on-the-job training strategies reported “Not much training research has been done, much less implemented” (p. 114). Gold complained that training techniques available in the literature have failed to find their way into practice. He highlighted the need for change, insisting that the kinds of skills people with disability were taught were a reflection of how others regarded their capabilities. Gold had two main criticisms of disability vocational training. Firstly, people are placed in menial jobs that require minimal skills training and secondly when the term ‘training’ is used it refers to exposure to a task but not the use of training techniques essential for developing appropriate vocational behaviour.

Other USA authors note that investigations into the training provided to supported employees is limited (Johnson & Rusch, 1990). Migliore et al. (2012) more recently commented that research into the extent to which training strategies are implemented by vocational trainers is not known and called for urgent investigation.

The calls for research in the area of Australian disability vocational trainers' use of training strategies have also been documented for many years. Parmenter (1976) stated there were a variety of strategies which allow staff to support learning for employees with intellectual disability. Parmenter did not see the problem with existing strategies instead he called for research involving the personnel directly responsible for training. Moreover, Ford and Ford's (1998) study cast aspersions on the ability of staff to provide quality training given their extensive self-reported training needs. Dempsey and Arthur (2002) have also stated that service provision that determines service delivery outcomes needs to be researched.

Kirby (1997) conducted a literature review following on from Gold's (1973) study and considered what had happened in vocational employment in the succeeding 24 years (Kirby, 1997). Kirby stated that previously the criticism of sheltered employment was that training did not lead towards acquisition of specific work skills for those with disability. Kirby affirms that not much has changed in prevailing years. What had changed in this period was the introduction of new industrial technology that meant there was a move away from traditional reliance on simple manufacturing jobs for people with disability. This meant new jobs and tasks needed to be considered for those with disability. If jobs that involved more complex tasks were introduced, then Kirby asserts effective training would be even more paramount. Kirby explored five reasons for the lack of training provision. Firstly, money is spent on projects to make money rather than on training. Secondly, disability employment services take on people with mild disabilities that require less training. The third contributor is keeping employees with disabilities on low-skilled jobs for long periods, so training is not required. Fourth Kirby states staff have a lack of employment expertise. Finally, Kirby blames government funding interested in reducing costs leading to reduced training and

services for people with severe intellectual disability. While Kirby acknowledges Gold's call for dissemination of knowledge of training strategies had been met in this period, Kirby still questions how successfully the training technology is utilised by frontline personnel (Kirby, 1997). Kirby states progress in disability employment will depend in part, upon what extent effective training is practiced.

2.6.1 Research in United States of America

More recently criticism of training provided to employees with disabilities has continued with two reports from the US National Disability Rights Network (2011, 2012). These reports are damning of the training being offered in sheltered employment stating endless training programs are offered but they do not prepare people with disability with workplace skills (US National Disability Rights Network, 2012). Even though sheltered employment was set up as a type of "job training program" (US National Disability Rights Network, 2011, p. 8) the training has little to do with interest, skills or a job match, and employees with disabilities are not trained in a variety of tasks. The National Disability Rights Network (2011) state training provided is often on mock assembly items then taken apart by supervisors, with the focus of the activity not learning new skills but keeping employees with disability busy. These reports offer only anecdotal evidence.

Bussone, Cramp, Dakunchak and Rosen (1993) discuss the merits of both supported (Open) and sheltered employment in the USA but state neither supported nor sheltered employment provides training opportunities for employees with disability. Stating the ideal situation would be a dual focus on both productivity and training however, this is rare. These reports and this article offer us anecdotal evidence about the provision of training

With questions around amount of training provided to employees with disability, Johnson and Rusch (1990) used repeated measures analysis to discover if hours that staff provide direct training changed over the period a person with a disability was in a job. They examined 224 people in the US with mild, moderate and severe and profound disability with a primary disability of intellectual disability. They found hours of direct training for two cohorts of employees with disability working consecutively 6 and 12 months did not change significantly. Decreases (or less) training provision were only afforded to those employed individually not those working in a group setting i.e. clusters and mobile crews, stating this is because the presence of a disability supervisor may inhibit employee independence by providing unnecessary training. Also, suggesting that the provision of training does not necessarily promote workplace independence. Furthermore, increased employee work hours did not result in increased training hours. This led the authors to question if staff were aware of their need to fade from the worksite and if training being provided was for reasons other than employee training needs. For example, staff provided ongoing supports simply because they were with employees, not because of employee's needs. One of the advantages of repeated measured analysis is you can use fewer participants to detect a desired effect size (Hox, Moerbeek, & van de Schoot, 2017). Even still, some cell sizes in this study were too small to make results generalisable (Johnson & Rusch, 1990).

Previous studies have commented on the limited amount of hours of vocational support provided to people with disability (Johnson & Rusch, 1990). While other studies suggest that during these hours disability employment staff may not be using training strategies appropriately. Migliore, Hall, Butterworth and Winsor (2010) surveyed 163 US employment specialists on their use of 'job development practices' recommended in research literature. This study had a larger focus than just training. For

example, the study examined employment staff practices in the areas of getting to know job seekers, finding job openings, and engaging employers to hire. They found some training practices were being implemented but others were not. The authors offered several possible reasons for the lack of correct utilisation of training strategies: (1) trainers not familiar with some of the strategies (2) time constraints (3) inability to receive funding for the use of some of the strategies. Their findings recommended greater use of strategies and use more in line with recommendations from literature. The Migliore et al. (2010) study did however focus on pre-employment practices not on-the-job training but with limited research in this area, it gives some insight into issues with training strategy implementation.

A further study (Migliore et al., 2012) surveyed 59 employment consultants (staff) in 11 employment programs throughout two states in the USA. The staff surveyed assisted people with intellectual disability in gaining paid employment. Participants self-reported on 33 employment support activities (i.e. involvement of family members and acquaintances, observation of job seekers in work and non-work environments, analyses of employers' needs, development of customised jobs, and assistance with work incentives planning). The employment support activities that were examined were placed in three domains: (1) career planning and assessment (2) job development and (3) job support. They found 78% of respondents provided job supports after the employee with disability was employed. The most implemented job support was natural supports (teaching the co-workers about how to support the new employee). The study also found that many of the employment support activities (strategies) were not always implemented consistently. Reasons given for this included: Staff were unfamiliar with the strategies, as most had only worked in the field less than 2 years. Staff had high workloads and only spent half their time directly assisting people with

disability. This was because of conflicts of priorities with organisation's management and funding agencies. The study recommended that government agencies and services increased the focus on job development practice and, staff be provided with quality training on job development strategies (Migliore et al., 2012). This study provides some insight into the state of job training in supported (Open) employment in America. However, the information may not be relevant to the Australian context, nor the ADE context. The study also did not gain the perspective of employees with disability or examine what training staff were receiving. Survey participants were self-reporting which means they may have been providing socially desirable responses rather than those activities they actually implemented (Migliore et al., 2012). The study does examine strategies that assist in gaining employment but does not include a wide range of specific on-the-job training strategies once the employee is working. Further recommendations from the study include a call for more research on strategies staff are implementing.

Another study that examined the provision of training strategies is Rogan, Banks and Herbein (2003). They focused on the use of one particular training strategy 'natural supports' in four USA disability organisations. Natural supports are the utilisation of co-workers to support people with disability in their workplace. Rogan et al. (2003) observed and conducted semi-structured interviews with 126 supported employees primarily with an intellectual disability, co-workers, employment consultants and managers. A strength of this study was cross check of what participants said (interviews) and their observed actions (researcher observations). They found consultants lacked training and expertise in natural supports, which hindered the facilitation of this particular training strategy. Stating experience of competent staff is key to quality outcomes. Thus, recommendations of this study were for disability

employment services to offer training and job shadowing to staff and work on reducing staff turnover.

A qualitative case study observed four staff using ‘instructional strategies’ (i.e. data collection, task analysis, chaining, fading, prompting and shaping) (Hinton & Ballard, 1992). This study examined staff use of the instructional strategies (when training those with intellectual disability) after staff had been provided with training in the strategies. Staff reported they were better teachers because of receiving training on the strategies. Staff reported they were better teachers because of receiving training on the strategies. Researchers then collected 130 hours of observations of the four staff providing training in both residential and vocational settings. The study found that staff provision of training was not necessarily based on suggestions from literature. Instead, it was based on spontaneous interactions. For example, in vocational settings staff set up training on ‘tent peg bags’ then left the employee with disability to work. The staff occasionally returned to either praise or reinstruct the employee but not provide concentrated training. Staff admitted to not utilising strategies since their training. Staff questioned the time and effectiveness of the strategies and suggested perhaps more naturalistic techniques (i.e. modelling) be utilised. Likewise, Reid and Favell (1984) state that training strategies will not be useful if staff do not accept them because they take too much effort to utilise or are not the method of first choice. Hinton and Ballard’s (1992) study used a case study methodology. Criticisms of case studies are concerns with methodological rigor, researcher subjectivity and external validity (Hyett, Kenny, & Dickson-Swift, 2014).

2.6.2 Research in Australia

While some of the aforementioned studies are critical of sheltered employment, discussion about the provision of vocational training in Australian Open employment services is equally unfavourable. Parmenter’s (1991) commentary on influences on

service delivery, maintains that the major issue with the shift from segregated to integrated models of employment for people with disability is a scarcity of appropriately trained staff. Parmenter (1991) also stated that Australian research in intellectual disability had been limited and lacked coordination and direction.

An Australian study by Anderson (1999) also examined time spent on training by disability support staff. Data were gained from the National Information Management System (NIMS) for people with disability working in Open employment during 1995-1997. At this time there were 27,361 active employees. There were four categories of support, one of which was 'job support.' Job support "includes the time involved in training or supporting the workers, training co-workers, negotiating with employers, counselling families, calling employers etc" (Anderson, 1999, p. 82). Males and females received similar levels of support however the amount of support received per week varied considerably with the primary disability. People with vision impairment received an average of 0.6 hours per week. For those with an intellectual/learning disability support was 1.1 per week, with high peaks of support at time of obtaining a job (Anderson, 1999).

This study provides the only empirical information on hours of support provided to people with disability in Australia. However, it does not include ADE data and is only for the years 1995 to 1997. While on-the-job training is included in "job support hours" so are other supports such as counselling families and calling employers etc. Therefore it does not conclusively tell us how much on-the-job training is being provided but suggests only minimal training is provided, given the mean is 66 minutes a week for all job support provided for people with ID.

2.6.3 Limited research in Australia

To date studies examining the use of training strategies by vocational trainers provide us with a very limited view of Australian state of on-the-job training. Overseas studies may not necessarily provide evidence for an Australian context because staff training, disability service systems and funding differ. Previous studies do not have a focus on the large variety of training strategies described earlier. And some preceding studies are now over 20 years old (Gold, 1973; Hinton & Ballard, 1992 Kirby, 1997; Parmenter, 1976). Earlier literature includes some studies with limited number of participants and an absence of employees with disability perspective. Including employees with disability in this research ensures their perception is included and adds to the understanding of disability employment training provision.

2.6.4 Summary

The provision of training and supports for employees with disabilities is seen as an important factor in whether they succeed in obtaining and maintaining employment (Darrah, 1995; Bassanini et al., 2005; Salas et al., 2012). The extent to which these strategies are implemented is not known (Dempsey & Arthur, 2002; Ford & Ford, 1998; Migliore et al., 2012; Parmenter, 1976). Research to date suggests that staff may not be providing training utilising these strategies. Reasons why training may not be provided can be grouped into three main categories. Some authors have suggested a decrease in or limited government funding has led to staff time constraints and a reduction in the provision of training for employees with disability. Others suggest staff themselves do not possess expertise in training strategies and are not utilising the strategies appropriately. Finally, it is reported that those with mild intellectual disability are engaged in menial or low skilled jobs which do not require intensive training.

While there has been previous research in the area of training, calls for future research has continued for decades. In particular, an Australian context that provides empirical evidence in the area of staff knowledge and provision of training is warranted. Low employment rates, lack of job progression and low wages for employees with intellectual disability, can in part be rectified by the provision of quality on-the-job training. Therefore, it is important to ascertain if disability vocational trainers are aware of the variety of strategies known to support positive employment outcomes, if they know how to correctly implement and if they are utilising strategies. Finally, the rarely heard voice of employees with intellectual disability needs to be sought on this important topic.

2.7 Research questions/Aims

In order to discover the influences that may affect staff use of the training strategies in Australian disability employment settings the primary question is:

What factors influence the provision of on-the-job training by disability vocational trainers?

In pursuing the main research question, two contributory questions were proposed.

1. What training strategies are vocational trainers utilising to instruct employees with disability?
2. How do vocational trainers and employees with disability view the training provided?

Chapter 3: Methodology

3.1 Introduction

The purpose of this chapter is to describe the research design, theoretical perspective and method of qualitative and quantitative data collection and analyses.

The study used a mixed method approach (Creswell, 2014) to investigate the main aim of whether disability vocational trainers had knowledge of and used the 19 training strategies shown to assist people with disability to maintain employment.

3.2 Theoretical perspective of this study

Theory provides a lens to examine what is investigated and assists with formulating the questions asked (Creswell, 2009). This study utilised Job Performance Theory (Campbell, McCloy, Oppler, & Sager, 1993) to provide the theoretical perspective. Job Performance Theory stems from industrial and organisational psychology, and was developed to study whether a person performs a job well. Industrial and organisational psychology is the branch of psychology that deals with the workplace. It studies people, work behaviour (performance of tasks) and work settings, to understand how behaviour can be influenced, changed and enhanced to benefit employees and organisations (Truxillo, Bauer, & Erdogan, 2016). Job Performance Theory provided the ‘lens’ to address the main research question: ‘What factors influence the provision of on-the-job training by disability vocational trainers?’

Job Performance Theory guided the study’s questionnaire and interview questions. The staff questionnaire sought to examine if staff had declarative knowledge of 19 training strategies, while staff interviews assessed their procedural knowledge and motivation. Job Performance Theory describes three predictors of trainer performance: declarative knowledge, procedural knowledge and skill and motivation (Diagram 3.1). Declarative knowledge (knowing what to do) is knowledge of principles, facts and

ideas. Procedural knowledge and skill (knowing how to do it) includes cognitive skill, perceptual skill and interpersonal skill. Motivation (reason/s to perform) refers to “a combined effect from three choice behaviours – choice to expend effort, choice of level of effort to expend, and choice to persist in the expenditure of that level of effort” (Campbell, 1999, p. 494). For Campbell (1999), the specific relationship between the three predictors is perhaps never known; however, he argues that performance will not occur unless there is a choice to perform (motivation), and performance cannot occur unless there is some skill. In fact, the higher the skill level the greater the tendency to choose to perform. In this study, ‘performance’ relates to staff provision of relevant on-the-job training for employees with a disability.

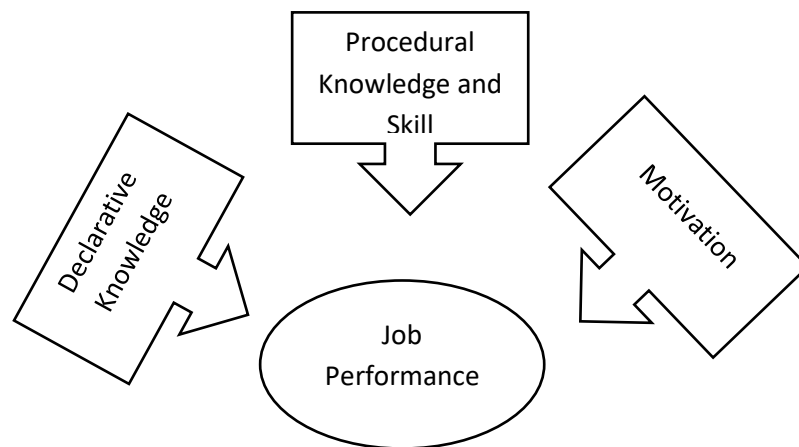


Figure 3.1 Job Performance Theory.

Previous studies examining the provision of workplace training for individuals with an intellectual disability are limited in both the number and scope of training strategies studied. Studies examining on-the-job training in non-disability workplaces have highlighted the difficulties of drawing conclusions about the effectiveness of training. For example, Brunello and De Paola (2004) suggested that empirical literature showing under provision of training may not be accurate because of the disparity between workers’ and supervisors’ perceptions of training. They also suggest that

informal training is rarely recorded, making it difficult to test theories of training.

However, Hunter's (1986) review of training success found that job knowledge predicts job performance, rendering Job Performance Theory, which examines both declarative and procedural knowledge, an applicable model for this study.

Job performance comprises actions, behaviour and outcomes (Viswesvaran & Ones, 2000). Campbell (1999) defines performance as behaviour (something done by staff) but differentiates performance from outcome. Outcomes are the consequences of service and result partially from an individual's performance. However, outcomes are also the result of other influences, such as job stress, salary, work environment, workload (Munisamy, 2013), supervision, staff development, organisational goals (Lawler, 1973), government regulation and national or global events (Dent & Anderson, 2001). Therefore, Job Performance Theory does not focus on outcomes but instead assesses whether a person performs a job well. This emphasis on individual performance corresponds with the purpose of empirical research (Yanow & Schwartz-Shea, 2006), highlighting the significance of Job Performance Theory for this study. Interviews with staff and employees with disability in this study focused on staff performance. Staff were asked to describe how they executed strategies they claimed to utilise in the questionnaire. Interviews with employees with disability and examination of their ITPs (Individual Training Plans) provide further information on staff training performance.

While Campbell's (1990) Job Performance Theory assesses whether a person performs a job well, there are issues regarding objectively measuring job performance (Landy, Zedeck, & Cleveland, 2017) including (1) measuring job performance from consumer perspective data only gives one perspective, (2) measuring outcomes that are not bound by quality control can be manipulated, resulting in inferior outcomes, and (3)

problems that hinder staff from delivering optimal service are often not factored in. In addition, measuring service productivity can be even more challenging than measuring product output (Landy et al., 2017).

The aforementioned issues were addressed by: (1) data in this study was collected from two distinct groups of participants offering separate perspectives: those providing the training (staff) and those receiving the training (employees with an intellectual disability) (2) outcomes were not measured instead this study's questionnaire focused on the declarative knowledge of staff about the 19 strategies (3) staff interview questions explored the environmental and personal factors that could affect staff motivation, offering examples of difficulties (not related to knowledge).

By addressing these issues, this study built upon Campbell's (1990) Job Performance Theory to provide a framework to address the study's research question and selection of the design. Job Performance Theory has been utilised to guide this study's questionnaire and interview questions, which examine if staff know how to perform 19 training strategies. While difficulties in measuring job performance have been highlighted, this study's design helps minimise these problems. A mixed method design, which includes the use of both quantitative and qualitative data was utilised to address the research questions. It was predicted that this study design with data from three groups of participants would provide a clearer outcome.

3.3 The strength of mixed methods

For Rossman and Wilson (1985), there are three schools of thought on mixed methods: the purists, who argue that quantitative and qualitative are mutually exclusive methods; the situationalists, who view quantitative and qualitative methods as complementary, and propose that certain research questions lend themselves to either approach; and the pragmatists, who recommend integrating the two methods and feel

epistemological difference is exaggerated (Tashakkori & Teddlie, 2009). Howe (1992) concurs, stating that while traditionally, research methods have been linked to certain paradigms, this is neither essential nor obligatory. Conventionally, the positivist paradigm of quantitative research sees reality as existing and possible to determine, while qualitative research favours a constructivist paradigm, suggesting that meaning is constructed and determined by the individual (Gray, 2014). Johnson and Onwuegbuzie (2004) assert that while the epistemological underpinning of the mutually exclusive purist position remains unresolved, mixed method approaches should use a paradigm that facilitates qualitative and quantitative research working together, such as the pragmatism paradigm, “associated with action, intervention and constructive knowledge” (Goldkuhl, 2012, p. 1). Pragmatists dictate that researchers use whatever approach is most appropriate and produces the best solution and superior research (Johnson & Onwuegbuzie, 2004). Philosophically, the mixed methods in this study is as Johnson and Onwuegbuzie (2004) advocate: “it is the ‘third wave’ or third research movement, a movement that moves past the paradigm wars by offering a logical and practical alternative. Philosophically, mixed research makes use of the pragmatic method and system of philosophy” (p. 17).

Despite the often-cited differences between qualitative and quantitative research in the social sciences, similarities are evident. For example, both qualitative and quantitative researchers strive to minimise bias (Sandelowski, 1986) and provide findings about humans and their situations (Sechrest & Sidana, 1995).

The advantages of a mixed method study are generally accepted as offering a richer understanding of the phenomenon being researched (Denzin, 1978; Hanson, Creswell, Clark, Petska, & Creswell, 2005; Johnson & Onwuegbuzie, 2004). Indeed, as Johnson and Onwuegbuzie (2004) stated, “the goal of mixed methods research is not to

replace either of these approaches but rather to draw from the strengths and minimise the weaknesses of both in single research studies and across studies” (p. 15). This study employed these advantages by first surveying staff to gain insight into the nature and extent of training and then interviewing staff, employees with intellectual disability and lecturers to further address the study’s research questions. Table 3.1 below outlines the combination of quantitative and qualitative methods employed in this study.

Table 3.1

Combining Quantitative and Qualitative Methods

Quantitative research facilitates qualitative research by identifying people to participate in the qualitative enquiry	✓	Questionnaire identified staff that were willing to be interviewed
Findings from different methods are checked against each other	✓	Findings from the questionnaire and interviews were compared
Quantitative research emphasises the researchers’ concerns whereas qualitative research emphasises the participants’ concerns	✓	Questionnaire enquired as to declarative knowledge of staff while interviews highlighted areas of concern for participants
Qualitative research facilitates interpretation of findings from quantitative research	✓	Questionnaire findings were examined in more detail during staff interviews
Qualitative and quantitative research are used together to provide a bigger or richer picture	✓	Questionnaire and interviews were combined to provide more comprehensive final findings

Note: ✓ indicates components that directly correspond to the methodology employed by the current study.

Source: Pope and Mays (2008, p. 104).

3.4 Mixed methods: Explanatory sequential design

Creswell and Plano Clark (2011) discussed the major mixed methods designs: convergent, parallel, explanatory sequential, exploratory sequential, embedded, transformative and multiphase. The study design employed in this research was a mixed methods sequential explanatory design (see Figure 3.2).

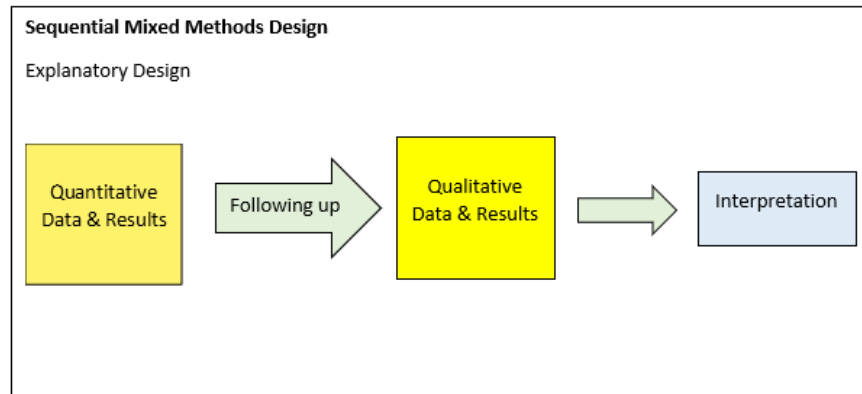


Figure 3.2: Sequential mix methods design

An overview of the research questions, design and the participants and the order in which data was collected is presented in Table 3.2 below. This information will assist in explaining the rationale for choice of the explanatory sequential study design.

Table 3.2

Design, Participants and Order of Data Collection

S1, no.	Research Questions	Participants	Type of Data Collected	Tool used and order of Data Collection
1	What training strategies are vocational trainers utilising to instruct employees with disability?	Staff	Quantitative	Questionnaire
2	How do vocational trainers and employees with disability view the training provided?	Staff (same staff as S1, no.1) Employees with disability	Qualitative Qualitative and quantitative	Interview Interviews and ITP data
3	What training strategies are being taught in the Disability Certificates III and IV	TAFE/RTO lecturers	Qualitative	Interviews

In an explanatory sequential study, quantitative data are collected before qualitative data (Creswell & Plano Clark, 2011). This approach was appropriate for this

study because a larger number of staff participants across Australia could be recruited to complete a questionnaire, providing an overview of the state of training in disability employment services.

While Creswell and Plano Clark (2011) stated that ‘two mixed methods studies will never be exactly alike’ (p. 54), they maintain that to ensure a credible mixed methods design, the researcher needs to decide on the following: integration, priority, timing and mixing of the data.

3.4.1.1 Integration

Integration refers to whether the qualitative and quantitative methods are independent or interactive. Independent integration occurs when the researcher keeps the quantitative and qualitative research question data, collection and data analysis separate. This study represents an ‘interactive level’ (Greene, 2007) of interactions because the two research paradigms are mixed before final interpretations. Data from the questionnaire inform the qualitative data, and together, the two sets of data provide conclusions that advise recommendations.

3.4.1.2 Priority

Priority refers to weighting of quantitative and qualitative methods. The researcher must decide between according equal priority to methods in addressing the research problem or placing greater emphasis on the quantitative or qualitative method. In this study, greater emphasis is placed on qualitative methods. A qualitative approach allows the researcher to identify issues that staff themselves see as influencing their roles (Gribich, 1999; Lester, 1999). Further, qualitative research provides methods that highlight issues and information that are ‘difficult or impossible to express by quantitative means’ (Dyer, 1995, p. 261).

3.4.1.3 Timing

Timing in mixed method study designs can be classified in three ways: concurrent (qualitative and quantitative data are collected at the same time), sequential (the researcher chooses to collect and analyse quantitative data first, or qualitative data first) or a multiphase combination (the study uses both sequential and/or concurrent timing) (Creswell & Plano Clark, 2011). Timing describes the order in which qualitative and quantitative methods are used. In this study, qualitative and quantitative data are introduced in two phases, sequentially. The advantage of this for this study is that the quantitative data could be both checked and elaborated on in the interviews.

3.4.1.4 Mixing

When embarking on a mixed method study, the question of when to ‘mix’ the methods must be addressed. Johnson, Onwuegbuzie and Turner’s (2007) study found that mixed method researchers differed based on when method mixing occurred. Tashakkori and Creswell (2007) also discussed different types of method mixing. Mixing can occur in the manner in which research questions are developed, within sampling procedures, within data analysis and within two types of conclusions. Mixing can also occur, as in this study, within two types of research questions (i.e. either a quantitative approach or vice versa) and using both qualitative (interviews) and quantitative (questionnaire) approaches for data collection.

3.5 Role of the researcher in the current study

The researcher has a Masters degree in Disability Studies and has extensive experience as a lecturer in disability studies at a tertiary level. Additionally, she has significant experience and expertise in the area of intellectual disability. She provided training to employees with intellectual disability in a ‘hands on’ capacity and was employed in management positions in disability services. This combination of both

knowledge and applied experience has provided many advantages. For example, the capability to communicate and interact well with the study participants, and an understanding of the complexity of disability employment and specific business issues associated with providing an employment service to those with disability.

A hermeneutic approach, concerned with human experience as it is lived, was taken (Lavery, 2003). Hermeneutics is the tension between one's own perspective and the perspectives of others. Hermeneutics states that it is impossible to understand a participant's reality entirely and that the researcher integrates their meaning with that of the participant (Ezzy, 2002). Gadamer (1989, as cited in Dowling, 2004) suggests it is impossible to suspend one's own judgements but we must be aware of our biases and how researcher and participant views/dialogues are combined. To minimise bias, the following were adhered to (Morse, 2015):

- No hypothesis was proposed, to ensure participant information was not used to either confirm or deny any preconceived findings.
- The researcher minimised elaborating on interviewee answers; instead, asking for further clarification of comments.
- Checks of coding were completed by other researchers involved in the study.

3.6 Ethics

Ethics approval was obtained from Flinders University Social and Behavioural Human Research Ethics Committee on 7th March 2014 (Project No. 6323). Subsequent modifications were approved on 10 July 2014, 13 August 2014, 3 November 2014 and 18 May 2015 (see Appendix B for Ethics approval timeline).

Ethical issues included providing anonymity and confidentiality to all organisations and individual participants. Data has been stored on code-protected computers and hard copies are kept in a locked filing cabinet. Interview transcriptions

were emailed using a protected zip file. This study recognised the particular vulnerability of participants with intellectual disability and hence several approaches were implemented to ensure participants were protected. For example, information about the study was provided to employees with intellectual disability in an Easy Read (Department of Health, 2010) format incorporating pictures or visuals. Employees' ability to provide informed consent to be part of the study was re-checked with employment staff (staff that had not nominated the employee for the study). This ensured confirmation of the employee with disability's permission to be involved in the study.

3.7 Data collection and analysis

Data collection consisted of three phases (see Figure 3.3). Phase I was the pilot study data collection and analysis. Phase II was the main study data collection. This included (1) staff questionnaire and interviews (same staff involved in both), (2) interviews with employees with disability and analysis of Individual Training Plan (ITP) records, and (3) interviews with Technical and Further Education (TAFE)/Registered Training Organisation (RTO) lecturers. Phase III consisted of main study data and triangulation. Further explanation of each of the three phases follows.

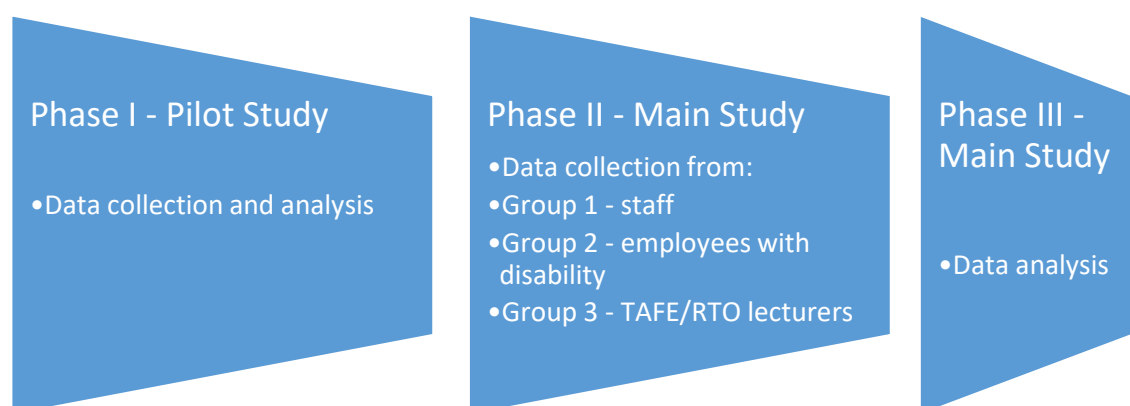


Figure 3.3. Phases of this study.

3.7.1 Phase I – pilot study

Text for this section is taken from Alexander, Ford, Raghavendra and Clark (2017) (Appendix C published article). There are no known existing survey tools to gather information on staff use of the 19 training strategies presented in this study; hence, a pilot study was conducted in one South Australian ADE. Advantages of pilot studies are that a newly developed research instrument can be pretested and the study findings may identify problems that may affect the main research (van Teijlingen & Hundley, 2004). A pilot study can help highlight unforeseen issues, increase the chances of obtaining clearer findings in the main study, allow checks of planned analytical procedures and make any needed alterations to data collection (Woken, 2013). While some issues may not become obvious until the larger study is conducted, pilot studies are an integral part of a good study design and assist in overall success of the study (van Teijlingen & Hundley, 2001). Hence, a pilot study was conducted (Appendix D pilot study questionnaire) to inform the planning and implementation of Phases II and III of this study, and addressed the following research questions:

- What training strategies are vocational trainers utilising to instruct employees with disability?
- How do vocational trainers and employees with disability view the training provided?

The pilot study involved surveying three staff and interviewing two staff who worked at one ADE and interviewing and examining the ITPs of four employees with disability.

3.7.1.1 Method

3.7.1.1.1 Design

A sequential mixed methods design using a combination of quantitative and qualitative data collection (Creswell & Plano Clark, 2007) was utilised. A questionnaire was developed and administered to determine staff familiarity with 15 identified training supports and strategies. Semi-structured interviews were used to explore staff use and understanding of these training strategies and supports. Triangulation was gained by interviewing employees with intellectual disability and examining their ITPs.

3.7.1.1.2 Setting

The pilot study was conducted in one ADE. The ADE employed more than 150 people (staff and employees with disability) in four outlets: manufacturing, administration, packaging and desktop publishing.

3.7.1.1.3 Participants

There were two groups of participants. First group was staff who met the following inclusion criteria: provided one-on-one training to employees with a disability, were employed either part time or full time and employed in the role for a minimum of 6 months. The second group was employees with intellectual disability who were approached to be in the study by the Employment Services Manger according to the study's three criteria: a primary disability of intellectual disability, worked at the service for a minimum of 12 months and assessed (according to the ADE's funding body) as functioning at Level 3 or 4. That is, they had either a severe or profound core activity limitation. A core activity limitation is described as 'always' or 'sometimes' needing support in at least one of the following areas: self-care, mobility or communication (Australian Institute of Health and Welfare, 2006).

3.7.1.1.4 Participant recruitment

The CEO of the ADE was contacted by telephone, followed by a face-to-face meeting. During the meeting, the CEO was provided with a verbal explanation of the study and an information pack (see Appendix E) that included the organisational consent form, information about the study, an invitation for the organisation to participate and information that could be used to advertise the study in the organisation (i.e. in staff newsletters, via email or the intranet). A liaison contact from the organisation was selected by the CEO, and this person distributed permission forms and questionnaires to staff and employees with an intellectual disability meeting the study inclusion criteria. Participants then chose whether they would like to participate in the study or not. The researcher provided staff with an Information Sheet outline confidentiality and the intentions and requirement of the study. Employees with a disability were provided with an 'Plain English' version of the Information Sheet (see Appendix F.3). Staff participants provided their contact details at the end of the questionnaire if they were interested in being interviewed. The researcher then contacted potential staff participants directly to organise a day, time and place to be interviewed. A staff liaison of the disability employment services gave the Information Sheet to employee participants that met the study's criteria. Staff advised the researcher which days and times were convenient to interview the employees with disability. All employee interviews were conducted at their workplace.

3.7.1.2 Tool: Development of the questionnaire on training strategies

The questionnaire developed for this study was based on a review of the work-skills training literature in the area of disability employment (Ford & Ford, 1998; Grossman & Salas, 2011; Iacono, 2010; Metts, 2000). The questionnaire was designed to ascertain if vocational trainers had the first predictor of Job Performance Theory,

‘declarative knowledge’ (i.e. if vocational trainers were familiar with 15 training strategies stated in the literature as increasing work outcomes for people with disability) (Buggey & Ogle, 2012; Crites & Howard, 2011; Haynes, 2013; Nord, Luecking, Mank, Kiernan, & Wray, 2013; Reynolds, Zupanick, & Dombeck, 2011; Wehmeyer et al., 2006; West & Patton, 2010). Training strategies were chosen from a broad range of job supports taught in disability tertiary qualifications. For example, in the Bachelor of Disability and Developmental Education at Flinders University, South Australia, one of the few degrees in disability offered in Australia. Secondly at TAFE in a variety of Certificates in Disability Studies. Development of the tool was in collaboration with the study’s supervisors, who have experience with intellectual disability and disability employment research.

The contents of the questionnaire were developed utilising suggestions from Marsden and Wright (2010). Questions were designed to consider if answers collected would address the study’s research questions. Questions were scrutinised to ensure they were not ambiguous, leading, asking for more than one piece of information or included a double negative. Sequencing was considered, with demographic information asked at the beginning of the questionnaire. Additionally, questions were ordered not to inadvertently influence answers by the order in which questions were presented. The use of acronyms was avoided and definitions of terms that respondents may not be familiar with were included. Closed-ended questions (i.e. multiple choice, scales and rank order) were included to allow frequencies and percentages to be reported. The primary researcher and supervisors discussed the questions to ensure possible answers would provide the information required. Finally, the questionnaire was trialled in the pilot study.

3.7.1.3 Staff participants

3.7.1.3.1 Staff

Three staff who met the participant criteria agreed and completed the questionnaire. All three were male and had full-time positions (38 hours per week) as Training & Support Co-ordinators. These staff had worked in their current position for a mean of 2 years [2 years, 1 month], and had a mean of four years [3yrs, 11mths] experience working in the disability field. Two participants had a Certificate III in Disability, while the other had a Certificate IV in Disability. All three had Certificate IV in Training and Assessment. All reported they spent the majority of their time providing direct training support to employees with an intellectual disability. Staff reported training tasks in the areas of manufacturing, administration, packaging and computing. On average, training staff were responsible for training 33 employees with a disability. Two staff agreed to be interviewed.

3.7.1.3.2 Employees with an intellectual disability

A total of four employees with an intellectual disability, two female and two male, were interviewed and their training records accessed. They had worked at the organisation for a mean of 10 years (range: 4–14 years) and were working a mean of 20.75 hours per week (range: 8–38 hours). Main tasks undertaken were partial participation in web design, refurbishing and disassembly of computers, and welding.

3.7.1.4 Tools and procedure

3.7.1.4.1 Staff questionnaire

The questionnaire explored whether staff recognised and/or used strategies in line with recommendations from the literature. Fifteen strategies/supports identified were listed with a brief description in the questionnaire (see Table 3.3). Staff were asked to select one of the following options: (a) unfamiliar with this strategy, (b) recognise the

strategy but do not use it, (c) use the strategy sometimes or (d) use the strategy regularly and (e) where they had learnt the strategy (i.e. TAFE, RTO or on the job). An eight-page questionnaire (see Appendix G hardcopy questionnaire) was distributed the ADE's CEO and returned by staff to the researcher in a reply-paid envelope. The staff also indicated in the questionnaire if they would be willing to participate in an interview.

Table 3.3

Training Strategies and Descriptions

Training Strategy	Description
Show and tell	demonstrate the task and explain as you demonstrate
Task analysis	listing a task into smaller sequential steps
Prompts/cues	physical, gestural or verbal reminders
Training Strategy	Description
Fading	as the skill is learnt, the prompt or cue is faded to a less obvious prompt
Reinforcement/reward	providing something the employee with a disability enjoys other than their usual pay, for example, praise
Modelling	providing a demonstration of the required skill, with no verbal explanation
Match-to-sample	using a correct example of a completed item as an example of how the task should be completed
Penalty/punishment	offering an undesirable consequence for a behaviour
Positive behaviour support	using methods to change an unwanted behaviour
Adaptations	providing a modification, technology or jig to aid the learner to be able to complete a task
Self-instruction	teaching employees with a disability to use self-talk to complete a task
Pictures/story boards	pictures to demonstrate the correct sequence of a task
Data collection	collecting information on details of work the employee completes
Individual Training Plan (ITPs)	a record of what the learner would like to learn or is learning
Video modelling	video recording correct behaviour the learner observes on numerous occasions

3.7.1.4.2 Semi-structured interviews

Two staff were then interviewed. The two interviews took 51 minutes and 67 minutes respectively to conduct (see Appendix H for staff interview protocol).

Staff semi-structured interviews included positives and challenges of a disability training role, and greater detail on the use of the strategies listed in the questionnaire. Examples of how training strategies had been utilised by staff were explored to ensure staff were not only familiar with the strategy but able to verbally demonstrate use of the strategy within recommendations from the literature. A copy of each individual's interview transcription was offered to participants. All interviews were conducted in a private office space at the ADE and recordings were transcribed verbatim.

Employees with intellectual disability were interviewed in their workplace and asked eight questions regarding the type of tasks and training they had participated in previously, tasks and training they were currently completing, if they enjoyed the tasks they have been involved in, and whether there were any new tasks they would like to learn (see Appendix I for supported employee interview protocol). Interviews with employees with a disability averaged 10 minutes each. They had the opportunity to have an advocate present during the interview; however, no one took this option. Employees were offered either a written copy of the interview or an audio copy on CD, with both options taken.

Employees with an intellectual disability allowed access to their ITPs, which provided details of the training they had participated in while they were at their current workplace.

3.7.1.5 Data analysis

The staff questionnaire and ITP data were analysed using descriptive statistics (i.e. measures of frequency and measures of central tendency) (Creswell, 2009) to

summarise the use of training and support strategies. Thematic analysis was applied to staff and employee interview data (Lapadat, 2010). The researcher read each transcript and a thematic analysis (Lapadat, 2010) was used. The developed themes were checked by a second researcher. Agreement after consensus was 100%. Themes were identified via data familiarisation and data coding (Ezzy, 2002). Themes assisted in answering the specific questions associated with this study.

3.7.1.6 Results

3.7.1.6.1 Staff questionnaire

Questionnaire data revealed that staff recognised and had knowledge of 13 of the 15 strategies (87%). Nine of the strategies—pictures/storyboards, task analysis, prompts, fading, reinforcement/reward, modelling, penalty/punishments, positive behaviour supports and self-instruction—were reported not to have been used by one or more staff.

The only strategy all training staff were unfamiliar with was video self-modelling. All staff reported not being taught self-instruction during their Certificate in Disability. Staff also reported learning most of the strategies on the job and not during tertiary education. Only two strategies were reported to be used regularly by all training staff—show and tell and ITPs.

3.7.1.6.2 Staff interviews

A variety of reasons were offered during the interviews for not using strategies. Positive behaviour support was seen as being ‘too difficult to implement’ [Interview 5]. The staff member explained that you needed all staff to assist in implementing the strategy and they did not feel this was currently possible. Pictures/storyboards were not utilised because (a) pictures do not last very long in the workplace environment, (b) the employees with disabilities had rejected the use of the strategy (the staff member felt

this may be because parents do not support this strategy) and (c) no iPad availability. Video modelling was reported as not being utilised because of the perceived time and effort it takes to make a video, staff being unfamiliar with the strategy and technical problems with the equipment. Self-instruction was reported as not being used because not all of the employees with a disability could talk.

Training staff reported learning the strategies ‘on the job’ or ‘in house’ twice as often as from a TAFE or RTO. Congruently, strategies that were reported as being ‘used regularly’ had been learnt twice as often ‘in house’ than from an RTO or TAFE. The two trainers that reported learning strategies on the job were more likely to feel the training received was adequate, with one trainer offering a possible reason, commenting that his training through a RTO was heavily theory based.

Further questions not addressed in the questionnaire were asked at staff interviews and two main themes emerged. First, staff were concerned about the lack of jobs or tasks for employees with disabilities to be involved in. Staff felt there was not enough appropriate work for employees to complete and the tasks people with a disability were working on were very simple (i.e. repetitive and not stimulating). Staff reported the factors that impacted suitable work were (a) tasks varying often, which made timelines for training and participation in the task restricted and (b) some employees with a disability having learnt all tasks on offer. Trainers reported having to ‘create’ (simulated) tasks. Staff also attributed the shortage of tasks for supported employees to a lack of money to access adaptations that enable necessary modifications to equipment. Supported employee training records confirmed the minimal use of adaptive equipment, with only one mention of use of an adaptation.

The second theme that training staff reported was a sense of frustration with lack of support and understanding from other staff. Trainers felt that other staff did not

realise people with disability may take longer to complete tasks and were unaccepting of mistakes made by supported employees. They felt production team leaders prevented workspaces being set out in an organised fashion that supported employees may require. Trainers also reported that management lacked understanding of the accommodations required for supported employees. Trainers also felt production staff often left all training and support to the trainers rather than being involved themselves. While trainers believed their role was valued by other staff, conversely, they also thought other staff had little understanding as to what was involved in a training role. Trainers wanted staff and management to be ‘on the same page’ and complained that the focus on production by staff impeded training—one trainer reported he wanted someone in management to ‘go to bat’ for the trainers [Interview 4].

3.7.1.6.3 Supported employee interviews

All employees with intellectual disability reported that they enjoyed the training they received; however, some had issues, including wanting more time.

Employees with intellectual disability also identified at least one different task they would like an opportunity to try/learn that they were not currently receiving training on, such as web design, welding, disassembly, customer relations, communication, reading and packaging.

3.7.1.6.4 Employees with intellectual disability ITPs

ITPs of the four interviewed employees with disability were examined. The ITPs spanned a maximum of 7 years (2008–2014), with 60 training items listed in total. The range of training items per employee was 13–19 items (average: 15). The training items were divided into four main areas: 31 items (51.7%) were utilised for production training (training directly leading to product completion); 11 (18.3%) were utilised for certificate training (provided by RTOs or TAFE); 11 (18.3%) were utilised for personal

development (supporting communication skills, team work, behaviour support, recreational activities, social skills, banking, transport and mental health) and seven (11.7%) were utilised for legislative training (mandatory training, that is, manual handling). Therefore, just over half of the training was directly related to production.

Table 3.4

Training Areas

Type of training	Example	Number	Percentage
Certificate training	Training provided by RTOs or TAFE	11	18.3%
Legislative training	Mandatory training, that is, manual handling, Disability Service Standards, etc.	7	11.6%
Personal development	Training that supports communication skills, working in a team, behaviour support, etc.	11	18.3%
Production training	Training that leads directly to the completion of a product	31	51.6%

3.7.1.7 Discussion

The sequential mixed methods design highlighted that while staff reported (in the questionnaire) they had a declarative knowledge of the 15 strategies; during the interviews, staff procedural knowledge (knowing how to implement the strategies) was less apparent. While staff purported to be ‘aware’ of the strategies, their knowledge of how to implement them was less evident. This could be because staff reported receiving a lack of instruction and opportunity to practise utilising the strategies during their certificate studies. It appears that while staff may know/be aware of the strategies, they may not have received sufficient instruction about them. Further, staff interviews highlighted that only two strategies (show and tell and ITPs) were utilised by all staff regularly. Show and tell could be considered an ‘intuitive’ training strategy requiring little specialised knowledge, and although ITPs may not necessarily be considered a

direct training strategy, they help focus trainers on employees' training needs, and may be conducted because of their regulatory nature and links to federal funding (DSS, 2015). There are therefore a large variety of researched training strategies available to support the abilities of employees with disability that are not being utilised. This finding may demonstrate a lack of practice and knowledge by staff in how to engage other training strategies recommended in the literature.

Additional questions in the interview (not addressed in the questionnaire) highlighted themes around provision of training. For example, staff reported that, in their view, there was a lack of funding to purchase appropriate adaptations to support employees with disability to be involved in a wider variety of jobs or tasks. Lack of adaptations was reported as a reason for people with disability working on simple tasks that were often boring and repetitious. The second theme reported was a sense of frustration with lack of support and understanding from other staff. A focus by both production team leaders and management on production impeded training. Curiously, the trainers did not reference lack of training provision as a possible reason for employees' low involvement in tasks.

Trainers gave erroneous reasons during interviews for not utilising particular strategies, suggesting they did not have the necessary knowledge on training strategies. For example, video self-modelling was reportedly not utilised because of flat batteries in the video camera, and self-instruction was claimed as ineffective because not all employees with disability could use natural speech, despite the objective of self-instruction being the ability to utilise covert self-talk (Rusch et al., 1985).

An examination of employee ITPs discovered that the majority (51.7%) of the training tasks were related to production tasks (i.e. tasks that lead directly to a product being completed). Equal second were personal development and certificate training, and

last, legislative training. Personal development items included hygiene, health, interpersonal skills, handwriting and transport. This highlights that disability employment staff are providing a much more holistic service than just direct vocational support, but this may be at the expense of training directly aimed at learning new workplace tasks. Similarly, all supported employees interviewed identified tasks they would like to learn but are not necessarily being addressed by staff.

The findings of the pilot study informed the tools and procedures in the main study. The following changes were made to the main study:

- Choice of a hardcopy and online questionnaire. It was noted that some staff would have preferred to complete the questionnaire online, while others may not have access to their own computer or may prefer a hardcopy. Therefore, both a hardcopy and online questionnaire were subsequently made available for convenience of the staff participant.
- Additional training strategies were included in the questionnaire. Three training strategies not included in this initial questionnaire were added to the final questionnaire: natural supports, job matching and job carving. (see Appendix A for a description of the 19 strategies included in the main study). Initially, these strategies were thought to only be relevant to Open employment staff. However, during the pilot (conducted in an ADE), it was highlighted during staff interviews that staff did utilise these strategies, albeit in a slightly different manner to that of Open employment staff. For example, natural supports are able-bodied workers in Open employment settings, while in an ADE, staff utilise higher functioning employees with disabilities as natural supports.
- Some staff interview questions were deleted. It was clear after interviewing staff in the pilot study that interviews could run well over an hour, which was tiring

and time consuming. From the original 20 questions, eight were removed (see Table 3.5 for the questions removed and the rationale).

Table 3.5

Questions Removed from Staff Interviews and Rationale

Question removed from staff interviews following pilot study	Reason for removing question
Do you feel government rules/demands affect your role? If so, in what way(s)?	This question could appear leading and participants had the opportunity to address concerns with government policy within Q3 ‘What are the challenges of your role?’
It typically takes how long to train an employee with a disability on one task (hours, days, weeks, etc.)?	Question too general/broad, which made it difficult for staff to answer.
How much time would you spend on training for acquisition, fluency, generalisation, maintenance and variability? How much time would you ideally want? If less than ideal, what prevents you from doing this?	This topic was addressed in the questionnaire. Staff were confused when trying to answer questions on five concepts at once.
If you use ‘other’ strategies, are they effective?	This question appeared to be duplicated and being addressed during Q9 Examples of training strategies they used and why they used these strategies.
How much training do you give to the trainees’ co-workers or supervisors to enable them to help the trainee?	This question was not directly addressing the research aims; therefore, it was removed.
Question removed from staff interviews following pilot study	Reason for removing question
What do you consider your role involves?	This question was duplicated with Q1 ‘Tell me about your role.’
Of the training strategies classed ‘know this strategy but do not use it’, why have you decided not to use it?	This question was duplicated with Q9 ‘Examples of training strategies they used and why they used these strategies.’
What are your expectations for employees with disabilities? What do you consider are achievable employment goals for the majority of employees with disabilities? (Give examples of tasks you think most employees with disabilities could complete and those they may not.)	Staff may have felt a pressure to answer this question positively and Q12 ‘How do you assess a trainee’s training needs?’ provided the researcher with a clear indication of staff expectations around employment goals for employees with disability.

- A third research aim was added. The pilot study highlighted that while staff felt they knew of the training strategies presented (‘declarative knowledge’), they

did not necessarily have the ‘procedural knowledge’; that is, staff did not necessarily utilise the strategies in accordance with recommendations.

Procedural knowledge can be gained through organised training i.e. academic facilities. Hence, a third research aim was added to the main study, with the aim of determining the range of training strategies taught in Certificates III and IV in Disability. These qualifications were selected as it was reported by staff in the pilot study held.

3.7.1.8 Summary

The pilot study demonstrated that, of the 15 training strategies presented in this study, staff were aware of 13. During interviews, it was discovered that only two ‘show and tell’ and ITPs were used consistently, indicating that trainers were not using the variety of training strategies that have been touted in the literature as aiding desired employment outcomes for employees with disability. Further, the strategies trainers were most likely to be utilising were those learnt in the workplace, not during accredited courses. This finding highlighted the need to add a third aim to the study: to determine training strategies being taught in the Certificates III and IV in Disability. The pilot study also demonstrated that mixed methods study design was appropriate to answer the research questions. The purpose built questionnaire tool and interview questions were usable tools, but needed changes to be used in the main study.

3.7.2 Phase II – Main study data collection

Phase II included data collection of the main study, involving three groups and three stages. Group 1 comprised vocational trainers (staff), Group 2 employees with intellectual disability and Group 3 lecturers from either an RTO or TAFE. Refer Table 3.6 for details of stages, groups and corresponding research questions.

Table 3.6

Groups and Stages of Main Study

Research Questions	Group	Stage
What training strategies are vocational trainers utilising to instruct employees with disability?	Group 1: Staff	Stage 1: Questionnaire
How do vocational trainers and employees with disability view the training provided?	Group 1: Staff	Stage 2: Interviews
	Group 2: Employees with disability	Stage 2: Interviews & ITPs
What training strategies are being taught in the Disability Certificates III and IV	Group 3: TAFE/RTO lecturers	Stage 3: Interviews

3.7.3 Phase II - Stage 1: Staff questionnaire

Stage 1 included a staff questionnaire, and addressed the following research question: What training strategies are vocational trainers utilising to instruct employees with disability?

3.7.3.1 Participants

Participants were staff (Group 1) working in either an ADE or Open employment. Questionnaires were distributed to staff meeting the following inclusion criteria:

- providing one-on-one training to employees with disability;
- employed either part time or full time; and
- employed in the role for a minimum of 6 months.

3.7.3.2 Recruitment

Twelve disability employment organisations were contacted via initial phone call or email to participate in this study (10 in South Australia and two in New South Wales). Five of the 12 South Australian ADEs contacted to participate in the study consented. ADEs were initially chosen to participate by size (the largest organisations

were invited first). Those CEOs/managers provided details of other employment services they thought may be interested in participating. At the time of data collection, four Open employment services in South Australia were identified as specifically providing services for people with an intellectual disability, and all were contacted to participate in the study. Three consented to participate and one declined. Due to the limited numbers of South Australian Open employment services with substantial numbers of people with an intellectual disability, and the aspiration of this study was to represent both Open employment services and ADEs, two Open employment services in NSW were contacted, of which one consented to participate. The other declined because of limited people with intellectual disability. The total number of disability employment services involved in this study was nine: five South Australian ADEs and four Open employment services (three from SA and one from NSW).

CEOs or senior managers initially received either a phone call or email with an offer of a face-to-face appointment from the researcher. The CEOs or managers were then given a verbal explanation of the study and an information pack (see Appendix E) that included the organisational consent form, information about the study, an invitation for their organisation to participate and information that could be used to advertise the study in the organisation (i.e. in staff newsletters or via email or intranet). A liaison from within the organisation was selected by the CEO or manager, and this person distributed consent forms and questionnaires to all eligible staff.

3.7.3.2.1 Questionnaire

The main study questionnaire was the similar to the pilot study questionnaire. Feedback from pilot study staff participants on the questionnaire was gathered during interviews and no changes were recommended. However minor changes were implemented, for example, an online version and three additional strategies were added.

The questionnaire included 31 questions and gathered information on how often staff provided training and the training strategies they utilised with employees with intellectual disability (see Appendix I online questionnaire). Other questions addressed staff demographic information, qualifications, type of production tasks in which they are involved, employees they train and how they perceive on-the-job training provided to employees. The questionnaire included a list and description of training strategies identified in the literature as appropriate when training employees with disability. Staff were asked to indicate if they:

- were unfamiliar with the strategy;
- know the strategy but do not use it;
- use the strategy sometimes; and
- use the strategy regularly.

3.7.3.3 Procedure

The questionnaire could be completed online or in hardcopy. The online questionnaire needed to be completed during the participants first attempt. The questionnaire included an initial question that discouraged participants that did not meet inclusion criteria from continuing the questionnaire. A hardcopy version was provided with a return paid envelope to be returned to the researcher at Flinders University. A period of 21 days was specified for the questionnaires to be returned, from the date the organisation liaison received the questionnaires. A reminder email was sent to the organisation's preferred liaison after 21 days.

3.7.3.4 Summary

Phase II main study data collection included Stage 1 (gathering data from questionnaires vocational trainers (staff) completed either online or in hardcopy),

followed by Stage 2 (interviews with vocational trainers and employees with disability), described below.

3.7.4 Phase II - Stage 2: Interviews with vocational trainers and employees with intellectual disability

Stage 2 of the Phase II main study data collection included interviews with vocational trainers and employees with disability. In addition, the employees' ITPs were examined. Stage 2 sought to answer the question, 'How do vocational trainers and employees with disability view the training provided?'

3.7.4.1 Vocational trainer interviews

3.7.4.1.1 Participants and recruitment

Staff participants specified in the questionnaire that they were willing to participate in an interview. Fourteen Group 1 participants (vocational trainers) indicated they were willing to participate, and 11 were interviewed. Of the three that initially expressed interest in being interviewed, one left the service and two did not respond to the researcher's attempts to contact them. Eight ADE staff were interviewed and three staff from Open employment were interviewed.

3.7.4.1.2 Interviews

Interview responses from the pilot study were examined to ensure questions had been understood, sequence was appropriate, questions were not offensive, and the desired information was obtained. As previously discussed, some changes were implemented. For the vocational trainer interview questions (see Appendix H for the staff interview questions). Vocational trainers were interviewed using the revised semi-structured open-ended interviews. Interview questions aimed to uncover greater depth regarding the participant's training role, the perceived value of training and the challenges of the role. The advantages of using one-on-one interviews were that the

interviewer could ensure questions were understood and issues could be explored in depth (Bruce, Pope, & Stanistreet, 2008). Interview questions covered the challenges and satisfaction of the role, perception of the supports and recognition of the role. Further questions addressed the 19 training strategies by requesting examples of how and when the participant had utilised the identified training strategies to ascertain Job Performance Theory's procedural knowledge (knowing how to do the strategy), and reasons for using or not using particular training strategies.

Vocational trainers were interviewed at a time and place of their choice, with all but one participant choosing to be interviewed in a private office at their place of employment (one participant chose to be interviewed in a coffee shop). Interviews were audiotaped and transcribed verbatim. Four participants requested a copy of the interview.

3.7.4.2 Employees with intellectual disability interviews

3.7.4.2.1 Participants

Group 2 participants comprised employees with disability, according to the following criteria:

- Primary disability of intellectual disability.
- Assessed at Level 3 or 4 on FOFMS (FaCS (Department of Families, Housing, Community Services and Indigenous Affairs) Online Funding Management System). Level 3 or 4 are people with disability assessed to have severe or profound core activity limitation. A core activity limitation is described as 'always' or 'sometimes' needing support in at least one of the following areas: self-care, mobility or communication (Australian Institute of Health and Welfare, 2006).
- Employed for a minimum of 6 months at the service.

- Prepared to grant access to training records.

3.7.4.2.2 Recruitment

A liaison person from within the disability employment organisation was selected by the CEO or manager to distribute Information and Consent Forms to eligible employees with disability. The forms were developed for employees with disability and included plain English and pictures to aid understanding. A staff liaison of the disability employment services gave the Information Sheet to employee participants that met the study's criteria. Staff advised the researcher which days and times were convenient to interview the employees with disability. All employee interviews were conducted at their workplace in an area that offered privacy. Consent to be in the study was verbally checked by staff prior to interview times being organised. Consent was re-checked, and written consent was obtained by the researcher directly before the interview began.

3.7.4.2.3 Interview tools and techniques

Fifteen employees with disabilities working in four ADEs were interviewed. Two Open employment employees initially agreed to an interview; with further follow up, one declined because of a busy workload and the second potential participant did not return phone calls.

Of the 15 employees with disabilities interviewed, seven opted to have an advocate present at the interview. Advocates were staff from the employment service (however, advocates were not required to be a staff member). If an advocate was present, the researcher checked and ensured they felt confident that the person with a disability was making informed consent to be part of the study and understood the consent form. This was done as a double check only, as staff recommending employees with disability for interviews were asked to ensure the employee could make informed consent to be part of this study. For other participants with a disability, the

organisation's liaison person was asked to ensure participant understanding and that participants met the study criteria.

There were nine semi-structured open-ended interview questions (Appendix H supported employee interview questions). Interview questions included the tasks they currently perform, tasks they have performed in the past and tasks they would like to undertake in the future. This assisted to establish a history and progression of employment. Other information sought included how long the participant had worked for the organisation and in what role/s.

Several techniques were planned but not utilised to aid understanding of interview questions by participants with intellectual and communication disability. For example, questions could have been presented in visual formats (Cambridge & Forrester-Jones, 2003). Talking Mats (Murphy & Cameron, 2008), a tool that uses a mat with symbols to aid people with communication difficulties to express themselves using visual strategies that can be recorded, were available if required. However, all participants demonstrated good understanding of questions with clear articulation of answers. The researcher often paused to allow time for participants to answer. It was planned that if an individual was unable to provide informed consent to participate, unable to sufficiently communicate their answers or requested an advocate to be present, this would be granted.

Interviews were audiotaped and transcribed verbatim. Employees with disability were offered both a written copy of the interview and an audio copy on CD. Thirteen participants requested a copy of the interview.

3.7.4.3 ITPs of employees with intellectual disability

Part of the study's eligibility criteria included employees with intellectual disability allowing access to their ITPs. Therefore, ITPs of the same 15 employees with

intellectual disability who consented to interviewed were examined. This was gathered to gain information on training provided to employees that would provide further triangulation of data collected from the questionnaire and interviews.

ITPs are audited documents that include a record of training requested and provided to an employee with disability. Each employee should have an ITP completed at least annually (Victorian Government, 2009). ITPs are confidential documents kept at the employees' workplace and include how the disability service provider supports the needs of the employee with a disability. Fifteen ITPs were examined, with a range of 3 months to 7 years, 11 months, and an average of 3 years, 8 months.

3.7.4.3.1 Procedure

ITP documents were provided to the researcher by employment staff that supervised employees with disability. The last 5 years of ITPs were requested. The availability of ITPs (i.e. how long the employee had worked at the service, if ITPs were accessible and filed conveniently) determined the time range provided. Staff made copies of the ITPs (they were either printed from a computer or hardcopies photocopied) and then supplied to the researcher. The researcher kept these copies in a locked filing cabinet at the university, which allowed her to examine each ITP at her convenience.

Examination revealed ITPs included 540 written entries. The entries were further separated into goals, instructions, objectives and case notes. From the entries, 212 goals were identified and categorised.

3.7.4.3.2 Summary

Stage 2 addressed the study's second aim of obtaining the views and perceptions of training staff and employees with intellectual disability regarding on-the-job training.

The final stage of Phase II, the interviews with the TAFE/RTO lecturers, is discussed next.

3.7.5 Phase II - Stage 3: TAFE/RTO lecturer interviews

Stage 3 of Phase II addressed the question, ‘What training strategies are being taught in the Disability Certificates III and IV?’ and included interviews with TAFE/RTO lecturers.

3.7.5.1 Participants

The majority of staff participants in their questionnaire indicated they received training on the strategies being examined in this study either from a TAFE or RTO provider. Hence, Group 3 participants were current lecturers at TAFEs and RTOs that provide training to staff in Disability Certificates III and IV.

Lecturers at degree level or above were excluded. Firstly because minimal questionnaire participants had completed a university qualification. Secondly the only university in South Australia to offer degrees in disability policy and practice is Flinders University. Lecturers from Flinders University Disability and Community Inclusion were not included, because the researcher is the primary lecturer in the subject that covers the training strategies. This was followed to avoid conflict of interest and bias.

3.7.5.2 Recruitment

RTO participants were from organisations that had been contacted for vocational training by staff participants and hence the same procedure for initial contact and interviews was followed. The Educational Manager of TAFE South Australia was contacted and the same procedure followed for that of other study participants: the Educational Manager was given a verbal explanation of the study and an information pack (see Appendix D) that included information about the study, an invitation for their organisation to participate and an organisational consent form.

Lecturer contact details were then passed onto the researcher, and three lecturers who teach the Disability Certificate III and IV modules were approached by the researcher via email. Lecturers were provided with information about the study and an invitation for an interview at their convenience. Three lecturers from two RTOs and one TAFE, SA were interviewed.

3.7.5.3 Interview questions and setting

There were nine semi-structured, open-ended interview questions, which sought to ascertain the experience and qualifications lecturers had in the 19 strategies examined in this study, the strategies taught and how students' knowledge of the strategies is assessed (see Appendix K TAFE/RTO interview questions).

Interviews were conducted in private offices at the participants' place of work. They were recorded and transcribed, with one participant requesting a copy of the transcription.

3.7.5.4 Phase II summary

The Phase II main study data collection included vocational trainer questionnaires, interviews with vocational trainers, employees with intellectual disability and TAFE/RTO lecturers, and examination of employees' ITP data. In accordance with the sequential mixed methods design of this study, the data were then analysed to provide triangulation of findings.

3.7.6 Phase III – main study data analysis

Phase III of the main study included descriptive and statistical analysis of findings from 48 vocational trainer questionnaire data; thematic analysis of interviews with 11 vocational trainers, 15 employees with disabilities, one TAFE and two RTO lecturers; and analysis and categorisation of 540 entries from the ITP records of

employees with disabilities. Further details of the analysis are discussed in the following sections.

3.7.6.1 Questionnaire

Questionnaire data were analysed using IBM SPSS Statistics 22 (predictive analytics software). Descriptive statistics that determined relationships and correlations was initially utilised to provide a summary of the questionnaire results, including findings on key demographic characteristics of the participants who responded to the questionnaire, such as age, sex and years of service.

Second, questionnaire data were assessed primarily to ascertain percentages of participants that identified they were familiar with each of the 19 training strategies. Data were further analysed using the non-parametric Mann-Whitney U test (Coakes & Steed, 1999) to examine relationships between:

- any of the demographic criteria and use of the training strategies;
- use of particular strategies and type of employment (Open or ADE); and
- the level of disability of the employee being trained and the type of strategies used to train them in tasks.

The Mann-Whitney U test was used because the assumptions of the t-test were not met (i.e. adequacy of size). Moreover, use of the Mann-Whitney U test was beneficial for this study because it examines rank differences and whether two samples means are equal or not, resulting in the ability to compare behaviour of questionnaire participants (MacFarland & Yates, 2016). Mann-Whitney U tests were used to compare relationships between variables to determine if the populations differed in use of the strategies. Groups were compared to ascertain which factors may be influencing the provision of on-the-job training. The assumptions for non-parametric techniques (such as the Mann-Whitney U test) include that the sample is random and observations

independent, that each person is counted only once, and that they cannot appear in more than one category or group (Pallant, 2005). These assumptions were met.

In addition, a comparison between the highest level of education received and whether they used the strategies was undertaken. In this, it was assumed either that they had learnt the skills at the place of highest education, or that their ability to learn them was relative to their highest level of education.

Five participants who used hard-copy questionnaires were able to complete the questionnaire in their own time and answered the entire questionnaire. However, the online questionnaire was required to be completed in one sitting. It is presumed that the time limit, together with the number of questions, led to some online participants not completing all questions. These missing data reduced the data for analyses for some questions (Salkind, 2010).

3.7.6.2 Interviews

Copies of transcripts were offered to all participants (as suggested by the National Statement on Ethical Conduct in Human Research) however, only 18 of the 29 took the opportunity, and no amendments were reported.

The research software NVivo 10 (QSR International, Sydney) served as the qualitative interview data management tool.

Thematic deductive analysis was utilised (Lapadat, 2010). Using the deductive process meant that the data were interpreted and coded to answer specific research questions. The prevalence of the theme was measured in terms of the importance of in answering the research questions and how many participants gave a similar response (Braun & Clarke, 2006).

Analysis for interviews involved the researcher reading and re-reading 29 transcripts to familiarise herself with and code the data. Coding in thematic analysis is

the process of identifying themes or concepts in the data. The coding process, according to Ezzy (2002), includes open coding (exploring the data, coding and comparing for meanings), axial coding (exploring the codes and specifying the conditions of the codes) and selective coding (identifying the central story and examining relationships between all codes). Coding in this manner identified four staff interview themes, four employee interview themes, three ITP themes and two themes from lecturer interviews.

3.7.6.3 ITPs

Table 3.7

Information Collected from ITPs

Term	Definition
Goal	Broad behaviour statements of predicted change
Objective	Clear and measurable target/s that assist in meeting a broad goal. Objectives should include a criteria, strategies, resources/materials and modifications that will be utilised to meet the goal
Case note	Record of workplace incidences and /or behaviours
Instruction	Comment/s or notes which are used for internal communications

ITP data were entered into Microsoft Excel (Excel version, 2016). Some 540 ITP entries were initially separated into goals, instructions, objectives and case notes (refer Table 3.7 for description). From these entries, 212 goals were identified and assessed for whether they were written in accordance with literature recommendations.

Written goals were further categorised as follows:

- Place of training: Was training to meet the goal delivered in house (by the disability employment agency) or at an outside training organisation?
- Clarity of goals: Was the goal written clearly (i.e. not vaguely)?
- Goals of the training: Was the goal's intention to provide certificate training, legislative training, personal development or production training? Alternatively,

was the goal more aligned with an instruction (i.e. an instruction to staff/client or addressing a behaviour of concern)?

Objectives listed in the ITPs of employees with disability were examined to ascertain:

- Place of training: Was training to meet the objective delivered in house (by the disability employment agency) or at an outside training organisation?
- Clarity of objectives: Was the objective measurable?
- Composition of the objective: Did the objective include conditions, criteria, strategies, resources/materials and modifications?

Further, dates of training provided and whether the goal or objective had been achieved were analysed.

3.8 Validation of data

Triangulation of the analysed data was gained by gathering information from questionnaire, interview and ITP data from three different sets of participants. Together with credibility and dependability of trustworthiness, ensured the study's rigour.

3.8.1 Trustworthiness

3.8.1.1 Credibility

Collection of data from two training stakeholders—those providing the training (staff) and those receiving the training (employees with disability)—and additionally, those providing training to staff (lecturers) offered triangulation of the data. This provided insight into the state of on-the-job training. During the analysis stage, the feedback from the three groups was compared to determine areas of agreement as well as areas of difference. Triangulation uses two or more sources (Bogdan & Biklenm, 2006) to facilitate a deeper understanding of the issues and increase the confidence of qualitative study's findings (Guion, Diehl, & McDonald, 2012). To this end, this study

utilised data from the staff questionnaire, staff interviews, employee with disabilities interviews and their ITPs to achieve triangulation in answering the study's research question, 'What factors influence the provision of on-the-job training by disability vocational trainers?'

3.8.1.2 Dependability

A coding scheme was developed. This scheme, emergent themes and six transcripts were given to one supervisor. The outcomes of the supervisor's and researcher's analysis were compared, discussed and a consensus reached.

The researcher kept a record of the decisions made during the research process (Bowen, 2009; Willig & Stainton-Rogers, 2008), including observations and the researcher's questions and thoughts while conducting the interviews. Decisions and notes made during coding and analysing the transcripts were also retained.

3.9 Conclusion

Job Performance Theory suggest that for vocational trainers to provide on-the-job training, they must first be aware of the strategies, know how to use them and be motivated to use them. A mixed method research design more specifically, a sequential explanatory design was used. Two states of Australia were involved in this study, South Australia (SA) and New South Wales (NSW). Nine South Australian and one New South Wales disability organisations were involved in this study; 48 staff completed the questionnaires, and a total of 29 interviews with staff, lecturers and people with disability were conducted. Triangulation of data from four separate sources improved reliability of findings and reduced method bias. Data from qualitative and quantitative methods of collection were analysed. Quantitative data were analysed using descriptive statistics and qualitative data using thematic deductive analysis that aided in generating findings and recommendations of the study.

The following chapters present the results. They are separated into staff questionnaire findings (Chapter 4), staff interview findings (Chapter 5), discussion of staff findings (Chapter 6), findings from interviews and ITPs of employees with disability (Chapter 7), findings from interviews with TAFE/RTO lecturers (Chapter 8) and final discussion and conclusion, including limitations of the study and recommendation for policy and practice (Chapter 9).

Chapter 4: Results from Vocational Trainers (Staff)

Questionnaire

4.1 Introduction

This chapter presents the results from the staff questionnaire addressing the first research question, ‘What training strategies are vocational trainers (staff) utilising to instruct employees with disabilities?’ The findings relate to the first part of Job Performance Theory—declarative knowledge—by examining whether staff know *what* to do; that is, are staff aware of the different training strategies available?

4.2 Objective

This study asked staff to self-report on their familiarisation with and utilisation of 19 training strategies. Vocational trainers (staff) were asked if they were ‘unfamiliar’ or ‘did not use’ the strategies, or if they used the strategies ‘sometimes’ or ‘regularly’. This study also identified where staff had learnt the strategies, and factors that affected staff use of training strategies.

4.3 Questionnaire findings

4.3.1 Response rate

A total of 173 questionnaires were distributed (see Table 4.1), with 165 online questionnaires distributed via email including an on-line link and eight hard copies were sent by mail. A total of 61 questionnaires were returned (35%), five hard-copy questionnaires and 56 online questionnaires were completed. However, 13 on-line questionnaires could not be included, for the following reasons: seven staff answered ‘No’ to whether they provided direct training support for people with disability, three questionnaires were removed as they did not answer any questions beyond Question 1, and a further three questionnaires were not included for analysis as the respondent had

worked less than 6 months. A total of 48 questionnaires were included for analysis, with a response rate of 65% (31 staff) from staff working in ADEs and 35% (17 staff) from Open employment staff.

Only significant MannWhitney results were reported. There were additional missing data in some of the later questionnaire questions. For example, questions no.'s 27 through to 31 were missing 35% of participant responses. Missing data is reported for each of the relevant responses by an asterix in the applicable tables.

Table 4.1

Response Rate by Employment Service

Employment ID	Questionnaires sent (N)	Questionnaires received (N)	Response rate (%)
ADE1	17	10	58.8
ADE 2	20	7	35.0
ADE 3	3	3	100
ADE 4	9	9	100
ADE 5	5	2	40.0
Open 1	9	5	55.5
Open 2	26	6	23.0
Open 3	16	2	12.5
Open 4	60	4	6.6
Total	165	48	29%

4.3.2 Descriptive statistics

4.3.2.1 Demographic information

The demographic data from the questionnaires indicated an even spread of age and gender (see Table 4.2). The majority (64.7%) of respondents were aged 40 years and over.

Table 4.2

Sex, Age and Type of Employment Service

Demographic characteristic	N	%
Sex		
Female	27	56.3
Male	21	43.8
Age		
18–30	4	8.3
30–40	10	20.8
40–50	14	29.2
50–60	14	29.2
60+	3	6.3
Chose not to disclose	3	6.3
Type of service		
ADE	31	64.6
Open	17	35.4

Most respondents were support staff (n=36) who worked directly with employees as opposed to managers or supervisors, and most had full-time positions (n=41). Staff reported on the exact number of years they worked in their current position and in the disability field (reported in ranges in Table 4.3.) Respondents (60%) had worked in the disability field for only 6 months–5 years and therefore, did not have extensive experience. The average time for all respondents in their current position was 6 years (range: 6 months–32 years). The average time spent for all respondents working in the disability field was 10 years (range: 1 year–41 years), with 64% of staff reporting they had worked in an area other than disability prior to working in disability employment.

Table 4.3

Employment Demographics of Staff

Demographic characteristic	N	%
Position title		
Support staff	36	75.0
Manager	12	25.0
Employment		
Full time	41	85.4
Part time	6	12.5
Casual	1	2.1
Years in current position (ADE/Open)		
6 months–2 years	11	22.9
2–5 years	18	37.5
6–10 years	9	18.7
11–20 years	7	14.6
20+ years	2	4.2
Missing data	1	2.1
Years of experience in the disability field		
6 months–5 years	19	39.6
6–10 years	12	25.0
11–20 years	8	16.7
20+ years	8	16.7
Missing data	1	2.1

4.3.3 The nature of training received by staff

Of interest to this study was the nature of training that staff had received, and what training they provided to employees with disability. The training that staff themselves had received is described in Table 4.4. Many staff (93.8%) reported they had a previous training role, with 62.5% of those having prior training roles in a sector other than disability. The majority of staff had a TAFE/RTO qualification in ageing/disability, with many staff also having a non-related trade or qualification, for example, in accountancy, mechanical engineering, education, nursing, personal training and human resources. Some 37% of staff had Train the Trainer/Training & Assessment IV qualifications. The majority of staff had post-secondary qualifications but only 18.7%

had an undergraduate degree or higher. Some 12% reported currently undertaking further studies, mainly certificates in disability studies and employment services.

Table 4.4

Education and Qualifications of Respondents

Questionnaire questions related to the nature of training received by staff	N	%
Previous training roles ^a		
Previous training role in another sector	30	62.5
Previous training role in the disability field	15	31.3
Had not had a previous training role	8	16.7
Highest level of education		
Some high school	2	4.2
Completed Year 12	3	6.3
TAFE	7	14.6
RTO	11	22.9
Diploma	9	18.8
Undergraduate degree	5	10.4
Postgraduate degree	4	8.3
Missing data	7	14.6
Formal qualifications		
Train the Trainer/Training & Assessment IV	29	37.6
Disability/ageing	27	35.0
Business/management	6	7.8
Certificate III in Employment Services	3	3.9
Other (i.e. accounting, mechanics, etc.)	12	15.6
Engaged in studies currently		
No	32	66.7
Yes	6	12.5
Missing data	10	20.8

Note: ^a Respondents were able to report ALL previous training roles and qualifications. The above table shows the percentage that fall into each of the listed categories.

4.3.4 Training strategies

This study examined staff use of 19 strategies, together with factors that affect the provision of on-the-job training by vocational trainers (staff). The questionnaire respondents were asked to identify if they were (a) unfamiliar, (b) familiar with but do not use strategies, (c) use sometimes or (d) regularly use each of the 19 strategies (see Table 4.5).

Table 4.5

Percentage of Staff Using the 19 Strategies

Strategy	Unfamiliar %	Familiar but do not use %	Total of DO NOT USE %	Use sometimes %	Use regularly %	Total of USE %
Show and tell				15	85	100
Job matching				35.1	64.9	100
Prompts/cues		2.5	2.5	10	87.5	97.5
Task analysis		5	5	35	60	95
Positive Behaviour Support (PBS)		5	5	37.5	57.5	95
Individual training plans		7.5	7.5	15	77.5	92.5
Fading	2.5	7.5	10	32.5	57.5	90
Reinforcement/reward		10	10	12.5	77.5	90
Match-to-sample		10	10	25	65	90
Job carving		10.8	10.8	35.1	54.1	89.2
Shaping	5.4	10.8	16.2	45.9	37.8	83.7
Data collection	2.5	15	17.5	25	57.5	82.5
Natural supports		18.9	18.9	27	54.1	81.1
Adaptation		22.5	22.5	32.5	45	77.5
Modelling		25	25	30	45	75
Pictures/story boards		35	35	40	25	65
Self-instruction	2.5	42.5	45	37.5	17.5	55
Penalty/punishment	2.5	60	62.5	27.5	10	37.5
Video modelling	7.5	87.5	95	5		5

Note: Missing data $n=8$.

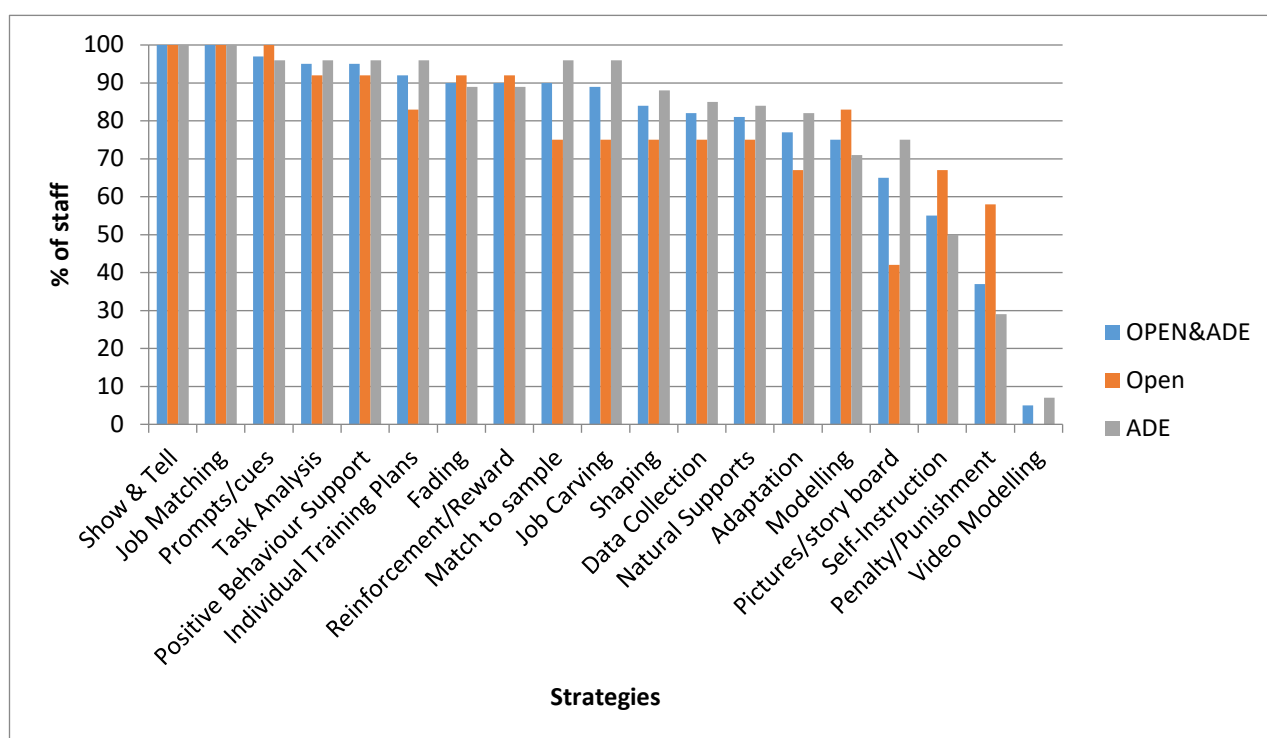
4.3.4.1 Most and least utilised strategies

Job matching and show and tell were used by all trainers (100%). The most regularly used strategies were prompts/cues and show and tell. Task analysis and PBS were utilised by 95% of respondents either sometimes or regularly. ITPs were used by 92.5% of staff. Fading, reinforcement/rewards and match-to-sample were also popular strategies, with 90% of staff utilising these three strategies sometimes or regularly. Approximately three-quarters (77.5%) of staff reported using adaptations either sometimes or regularly.

Video modelling was not utilised regularly by any staff, with only one staff member claiming they utilised video modelling sometimes. Some 62.5% of staff reported they did not use penalty/punishments. There were six strategies that at least some vocational trainers (staff) were not familiar with and 17 of the 19 strategies were not utilised by at least some staff.

4.3.4.2 Comparison of ADE and Open employment staff use of strategies

The main differences between Open and ADE staff were their use of adaptation, fading and data collection. ADE staff utilised adaptations 25.2% more than Open staff. However, the latter utilised fading (21.4%) and data collection (21.4%) more than ADE staff. Overall, the largest range of strategies was used by ADE staff (see Figure 4.1).



Note: Missing data $n=8$

Figure 4.1. Percentage of staff use of strategies according to type of employment service

All Open employment and ADE staff utilised show and tell and job matching (see Table 4.6). Additionally, four of the top five least utilised strategies were the same for both Open and ADE staff (see Table.7).

Table 4.6

Strategies Utilised by 100% of Staff

Strategies utilised by 100% of Open employment staff (n=12)	Strategies utilised by 100% of ADE staff (n=28)
Show and tell	Show and tell
Job matching	Job matching
Prompts/cues	

Note: Missing data $n=8$

Table 4.7

Strategies Least Utilised by Staff

Top five strategies least utilised by Open employment staff (n=12)	Top five strategies least utilised by ADE staff (n=28)
Video modelling	Video modelling
Pictures/story boards	Penalty/punishments
Penalty/punishments	Self-instruction
Self-instruction	Modelling
Adaptations	Pictures/story boards

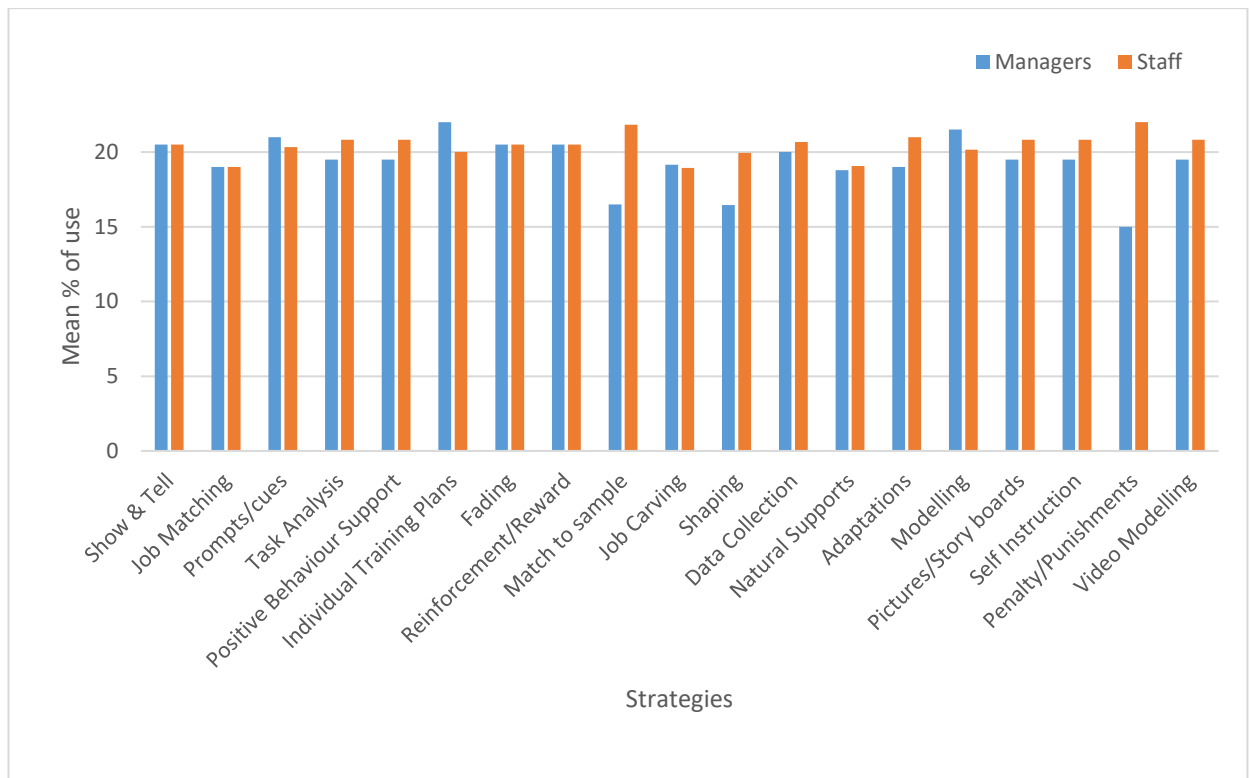
Note: Missing data $n=8$

4.3.4.3 Influences on the use of training strategies

Specific groups from the total respondents (as discussed below) were compared to see if there were significant differences in their use of the strategies.

4.3.4.3.1 Support staff and managers

The role of managers of disability employment services often includes working hands on with employees with disability; hence, the use of strategies between managers and vocational trainers (staff) was compared. Overall, staff ($n=30$) used the 19 strategies more than managers ($n=10$). The largest differences in use of strategies between vocational trainers (staff) and managers were in the use of punishments, match-to-sample and shaping, where support staff utilised both strategies more than managers.



Note: Missing data $n=8$

Figure 4.2. Mean comparison of use of strategies between managers and other staff

4.3.4.3.2 Organisations

The organisation whose staff utilised the 19 strategies the most was ‘Open 4’. This organisation reported that the majority of their staff provided direct training to employees with disability, unlike other organisations that had delineated training positions. Organisations ‘ADE 3’ and ‘Open 1’ used the 19 strategies least. However, overall, there was not much difference between the organisations’ use of strategies.

4.3.4.3.3 Years' experience in the field

Years' experience	N
6 months to less than 12 months	3
2–5 years	14
6-10 years	7
11-20	8
20+	7

Note: Missing data $n=9$

Number of years working in the disability field appeared to affect the use of strategies, with respondents working less than one year using the strategies least and respondents in the 11–20 years' experience group using them most overall. Respondents with less than one year of experience were least likely to utilise modelling, self-instruction and picture/storyboards. Respondents with 20+ years' experience were the only group to never use punishments and least likely to use Positive Behaviour Support. Those with 10+ years' experience used fading and modelling more, and this was statistically significant, with the Mann-Whitney U test indicating that use of modelling was greater for staff who had worked 10+ years ($Mdn=25.45$) than for those who had worked less than 10 years ($Mdn=14.83$), $U=86.5$, $p=.001$, and that the use of fading was greater for staff who had worked 10+ years ($Mdn=23.47$) than for staff who had worked less than 10 years ($Mdn=16.70$), $U=124.0$, $p<.05$.

4.3.4.3.4 Employee level of disability

Level of disability	N
Mild	14
Moderate	17
Severe	8
Profound	1

Note: Missing data $n=8$

Overall, staff who worked mainly with employees with mild disability used the 19 strategies less than staff who worked with employees with moderate, severe and profound disability. When data were further separated into two groups; strategies used by staff who worked with employees with mild disabilities and strategies used by staff who worked with employees with moderate/severe/profound disabilities the following was discovered: (1) there were only two strategies that were utilised more when working with employees with mild disabilities, self-instruction and job matching. (2) Mann-Whitney U tests indicated that the use of ITPs was greater for staff who worked with employees with moderate/severe/profound disabilities ($Mdn=22.34$) than for staff who worked with employees with mild disabilities ($Mdn=15.82$), $U=116.5$, $p<.05$, and (3) the use of adaptations was greater for staff who worked with employees with moderate/severe/profound disabilities ($Mdn=23.24$) than for staff who worked with employees with mild disabilities ($Mdn=14.21$), $U=94.0$, $p<.05$.

4.3.4.3.5 Level of staff education

Level of education	N
Some high school	2
Completed Year 12	3
TAFE	6
RTO	11
Diploma	9
Degree	5
Postgraduate degree	4

Note: Missing data n=8

Overall, staff who were Year 12 graduates were the most likely to use the strategies while postgraduate respondents were the least likely. When divided into two groups—strategies used by staff with Year 10 to a diploma qualification, and strategies used by staff with a degree and higher—two significant results were discovered in

relation to their use. First, a Mann-Whitney U test indicated that use of natural supports was greater for staff who had a degree or higher ($Mdn=24.89$) than for staff who had a diploma or lower qualification ($Mdn=17.11$), $U=73.0$, $p<.05$. This may indicate that those with less formal education provide more hands-on support and training to those with disability. Second, a Mann-Whitney U test indicated that use of ITPs was greater for staff who had a diploma or lower qualification ($Mdn=22.47$) than for staff who had a degree or higher ($Mdn=13.72$), $U=78.5$, $p<.05$. These findings may indicate that those with postgraduate degrees provide less hands-on support and have a more administrative role. Of those who had completed tertiary studies, staff trained by an RTO ($n=11$) were more likely to use the strategies (77.3%) than those trained by TAFE ($n=7$) (58.3%).

4.3.4.3.6 Perception of time spent providing direct on-the-job training support to employees

Perception of time spent	N
Right amount of time	21
Not enough time	11
Too much time	1

Note: Missing data $n=15$

Respondents who reported they did not have enough time to provide direct on-the-job training to employees also reported using strategies the least. A Mann-Whitney U test indicated that use of self-instruction was greater for staff who felt they spent the right amount of time providing direct on-the-job support to employees with disability ($Mdn=18.88$) than for staff who did not feel they had enough time ($Mdn=11.95$), $U=65.50$, $p=.041$. One person reported having ‘too much time’ to provide support; this person reported using the 19 training strategies the most. It is not clear if this respondent

interpreted the question correctly or if they were indicating dissatisfaction with their role.

4.3.4.3.7 Staff previous training roles

Previous training roles	%
Previous training experience in the disability sector	31.3
Previous training experience in another area other than disability sector	62.5
No	16.7

Note: Respondents were able to provide more than one answer. The above table shows the percentage that fall into each of the listed categories.

There was no significant difference in use of strategies between those who had previous training roles (n=45) and those who had not had previous training roles (n=8). Previous training roles were not necessarily in the disability field, so a previous training role may not have had any impact on their knowledge of the particular 19 strategies utilised to teach those with disability.

4.3.4.3.8 Further significant results

Two variables that produced significant results in relation to staff different use of the strategies were (1) staff practice of the strategies during their own training and (2) staff perception of quality training.

Mann-Whitney U tests indicated that use of modelling strategy was greater for staff who practised them during their training ($Mdn=20.95$) than for staff who did not practise the strategies during their training ($Mdn=10.64$), $U=46.50$, $p<.05$. Staff use of penalties as a strategy was greater for staff who practiced the strategies during their training ($Mdn=30.00$) than for staff who did not practise them during their training ($Mdn=7.00$), $U=51.00$, $p<.05$.

Table 4.8

Staff Instruction in the 19 Strategies

Staff comments on their receipt of instruction in the 19 strategies	N	%
a Where staff learnt the strategies		
In-house/on-the-job	36	75
TAFE	14	29.2
RTO	12	25
Experience/self-taught	10	20.8
University	6	12.5
Other	1	2.1
Considered training received of high quality ^a		
In-house/on-the-job	19	86.4
TAFE	10	45.5
Experience/self-taught	6	27.3
RTO	5	22.7
University	3	13.6
Other	1	4.5
Opportunities for practise of strategies during training		
Yes		
No	30	62.5
Unsure	4	8.3
Missing data	3	6.3
	11	22.9
Are you provided with opportunities for ongoing training in the strategies?		
Yes	22	45.8
No	11	22.9
Unsure	6	12.5
Missing data	9	18.8

Note: ^a Respondents were able to report ALL places of learning. The above table shows the percentage that fall into each of the listed categories.

In addition, Mann-Whitney U tests indicated that use of fading strategy was greater for staff who felt the training they had received on strategies was of average or high quality (see Table 4.8) ($Mdn=22.39$) than for those who felt their training was of low quality ($Mdn=15.53$), $U=112.50$, $p<.05$. Use of modelling strategy was greater for staff who felt the training they had received on strategies was of average or high quality ($Mdn=22.00$) than for those who felt their training was of low quality ($Mdn=16.00$), $U=112.00$, $p=.041$, and that use of match-to-sample strategy was greater for staff who

felt the training they had received on strategies was of average or high quality ($Mdn=22.00$) than for those who felt their training was of low quality ($Mdn=16.00$), $U=120.50, p<.05$.

Staff satisfied with the time they spent on training were significantly more likely to utilise self-instruction strategy. Staff interviews (see Chapter 5) will assist in discovering staff understanding of this strategy. A Mann-Whitney U test indicated that use of self-instruction strategy was greater for staff who felt they spent the right amount of time providing direct on-the-job support to employees with disability ($Mdn=18.88$) than for those who did not feel they spent enough time ($Mdn=11.95$), $U=65.50, p<.05$.

4.3.4.4 Staff comments on their receipt of instruction in the 19 strategies

The questionnaire enquired as to the training or education (instruction) that staff had received on the strategies (see Table 4.8).

The majority had learnt the strategies through 'in-house training' (75%). Respondents also reported they had learnt the strategies via TAFE/RTO, experience in the disability field, self-teaching, observing, common sense, research online, asking employees with disabilities how they best learnt and from other staff. The training that recorded the highest satisfaction was received from TAFE (71.4%), while experience/self-taught (60%) and in-house training (55.9%) were also considered good ways to learn the strategies. Those who claimed the training they received was of high quality used fading, modelling and match-to-sample strategies the most.

The majority of questionnaire respondents (62%) said they had had opportunity to practise the strategies during their training, with 45% stating they received ongoing training in the strategies. Staff who had practised the strategies during training used modelling and penalties more.

4.3.5 The nature of training provided to people with disability

One purpose of the questionnaire was to determine the nature of training being provided to people with disability (see Table 4.9) including the type of job tasks employees were taught. Packaging tasks were reported as the task that was most often taught. Staff also listed a large variety of ‘other tasks’ not listed in the questionnaire, such as carpentry, bricklaying, spray painting, and laundry, warehouse, kitchen, propagating, welding, metal and timber work. Staff reported they spent a large majority of their time teaching ‘social skills’ and other skills that relate to successful employment but not necessarily related directly to production. For example, calculating, reading, writing, employee anxiety mitigation, driving a motor vehicle, motivation, workplace expectations and taking employees to personal appointments. Staff reported spending most of their time on direct training provision to employees with disability (15.6%). However, when all categories were collated, staff spent most of their time on administrative duties (indirect training and other duties, 40.7%), with the least amount of staff time spent training employees on variability (i.e. training a variety of skills or tasks).

Table 4.9

Workplace Support Provided to Employees with Disability

Questionnaire questions related to nature of training provided to employees with disability	N	%
Types of tasks taught ^a		
Packaging	27	20.5
Manufacturing	22	16.7
Cleaning	20	15.15
Gardening	20	15.15
Administration	14	10.6
Retail	14	10.6
Other (accredited courses, laundry, cooking, warehouse, carpentry, bricklaying, spray painting, welding, metalwork, timber work)		

Questionnaire questions related to nature of training provided to employees with disability (continued)	N	%
Non-work tasks taught ^a		
Social skills	30	27.3
Communication skills	28	25.5
Supportive skills (transport, tell time, financial)	26	23.6
Self-help skills (toileting, eating)	16	14.5
Other	10	9.1
Most time spent training		
Direct production training support to employees with a disability (training on-the-job skills at the job site with the employee with a disability)	12	25.0
Other duties (i.e. meetings, admin, advocacy, liaison with other agencies, etc.)	7	14.6
Indirect training (e.g. case notes, writing task analysis)	6	12.5
Direct assistance (social skills, self-help skills, communication skills, supportive skills)	6	12.5
Direct training for employees on disability standards, ohs&w, policies, etc.	5	10.4
Missing data	2	4.2
	16	33.3
Most time spent training on:		
Maintenance	13	27.1
Acquisition	8	16.7
Fluency	5	10.4
Generalisation	3	6.3
Variability	2	4.2
Missing data	17	35.4

Note: ^a Respondents were able to report ALL tasks. The above table shows the percentage that fall into each of the listed categories.

Staff reported that their overall perception of the provision of on-the-job training to supported employees in the disability employment field in general was ‘good’ (25%) (see Table 4.10). However, 12.5% of staff felt that there was room for improvement in the area of training provision.

Table 4.10

Staff Perception of Training

Perception of the provision of on-the-job training delivered to supported employees in the disability employment field in general	N	%
Excellent	4	8.3
Good	12	25.0
Satisfactory	5	10.4
Needs improvement	6	12.5
Other	5	8.3
Missing data	17	35.4

4.3.6 Extent of training provided to employees with disabilities

The extent of training provided by staff to employees with disabilities included the number of employees they provided training to, that is, the employee’s level and type of disability (see Table 4.11).

The majority of staff claimed they provided a training service most regularly to employees with a moderate intellectual disability and those that were new or work experience employees (as opposed to existing employees).

The number of employees staff provided training to also varied widely. The number of employees supported by one staff member ranged between 2–700, with a mean of 61.3. There were two outlying numbers, 300 and 700, both of which were responses from senior managers. The assumption is that they were stating all the employees that they were responsible for but were not necessarily providing direct hands-on training and support to that number of employees. Hence, these outliers were removed. This reduced the range to 2–155. Data is reported below in ranges (Refer Table 4.11). Open employment staff provided training support to an average of 16.45

employees, while ADEs supported a much higher number of employees (average 54.26).

In terms of amount of time spent training employees with disabilities, findings were inconsistent. For example, 22% of staff felt they did not spend enough time on direct training for employees with disability, with a further 62% of staff claiming they spent more time assisting employees with other activities rather than direct on-the-job training of work skills. However, 43% of staff felt they spent the right amount of time on training. Staff who made this claim used the self-instruction training strategy more than those that did not. When asked what assistance would be needed to provide more on-the-job training, staff answers varied widely, to include allocated training times, a staff member dedicated to training, change of position description, more staff dedicated to job carving, less time spent on behavioural issues, less administration/paperwork, less pressure, upskilling of staff, organisation to have more commitment to training, streamline compliance systems and mock-up of all jobs.

Table 4.11

Extent of Training Provided to Employees with Disabilities

Questionnaire questions related to the extent of training provided to employees with disabilities	N	%
Level of disability		
Moderate	17	35.4
Mild	14	29.1
Severe	8	16.6
Profound	1	2.08
Missing data	8	16.6
Worked with number of employees with the following type of disability ^a	41	85.4
Intellectual disability	32	66.7
Psychiatric disability	28	58.3
Physical disability	23	47.9
Neurological disability	21	43.8
Sensory disability		

Questionnaire questions related to the extent of training provided to employees with disabilities (continued)	N	%
How many employees with disability staff supported		
1–20	12	25.0
21–40	12	25.0
100+	4	8.3
61–80	3	6.25
81–100	3	6.25
41–60	2	4.1
Missing data	12	25.0
Perception of whether staff spent enough time on direct training		
Right amount of time		
Not enough time	21	43.8
Too much time	11	22.9
Missing data	1	2.1
	15	31.3
Training provided most to:		
New or work experience employees	21	43.8
Long-term employees	12	25.0
Missing data	15	31.2
What assistance would be needed to provide more on-the-job training		
Other		
More staff	13	27.1
Less admin/paperwork	10	20.8
More funding	7	14.6
Missing data	2	4.2
	16	33.3

Note: ^a Respondents were able to report ALL types of disability. The above table shows the percentage that fall into each of the listed categories.

4.4 Summary

This chapter examined 48 vocational trainers' (staff) responses to a questionnaire that included questions on demographic information and use of 19 particular training strategies known to support those with intellectual disability in the workplace.

The demographic statistics of the respondents were reasonably uniform and showed an even spread across age and gender. The majority of respondents had a qualification in disability/ageing and 2–5 years' experience in the disability field.

Among the 19 strategies, show and tell and job matching were reported by both ADE and Open staff to be the most utilised strategies, while video modelling was the least used strategy. Overall, ADE staff utilised the 19 strategies more than Open staff.

Questionnaire responses showed that staff utilised the strategies less when they (a) possessed postgraduate qualifications, (b) worked with those with a mild disability (c) had less years' experience in the disability field, (d) considered their own training of poorer quality, and (e) reported not having enough time to provide training to employees with disability. Further, possible barriers to staff providing training to those with disability may be the reported substantial amount of time spent on a variety of non-production tasks, including teaching social skills to employees with disability and the burden of administrative duties.

The majority of staff had learnt the strategies at their workplaces; however, staff reported the best way to learn them was at TAFE. Staff also reported they had opportunity to practise the strategies during their own learning and received ongoing training in the strategies.

Some of the findings from this questionnaire will be further expanded on during the vocational trainer (staff) interviews, which are presented in the following chapter. Staff questionnaire and staff interviews are discussed in Chapter 6.

Chapter 5: Results: Interview Findings of On-The-Job

Training from the Perspective of Staff

5.1 Introduction

This chapter describes the findings of qualitative interviews with staff, outlining the data collected and providing a summary. The following chapter (Chapter 6) will combine discussions from the staff questionnaire and staff interview findings. Answers staff provided in the questionnaire about their use of the 19 training strategies was further clarified during staff interviews.

5.2 Results

5.2.1 Data from staff interviews

Table 5.1 details information about the staff interview participants including the service they worked in, their position title, how long they had worked in their current position and the duration of interview. Note: all names of participants been changed to protect their privacy.

Table 5.1

Data Collection Summary (Staff/vocational trainers)

Staff participants*	Service worked	Position title	In current position	Duration of interview (min/sec)
Sam	Open 2	Job Coordinator	9 yrs	58:14
Jill	Open 1	Job Support Officer	6 mths	1:01:27
Emily	Open 2	Job Support Officer	2 yrs 6 mths	42:58
Lisa	ADE 2	Supported Employee Training & Development Officer	8 mths	49:00
James	ADE 2	Manager	12 yrs	1:03:29

Scott	ADE 2	Manager	2 yrs 3 mths	43:52
Louise	ADE 1	Recruitment Officer	8 yrs	46:35
Staff participants* (continued)	Service worked	Position title	In current position	Duration of interview (min/sec)
Michael	ADE 1			25:22
Matthew	ADE 1	Personnel & Training Officer	12 yrs	54:01
Henry	ADE 3	Training & Support Coordinator	3 yrs 8 mths	51:46
David	ADE 3	Training & Support Coordinator	3 yrs	1:07:43

Note: *Pseudonyms used.

5.2.2 Themes

Thematic deductive analysis of staff interviews resulted in four themes and 12 subthemes (see Figure 5.1 for a pictorial representation).

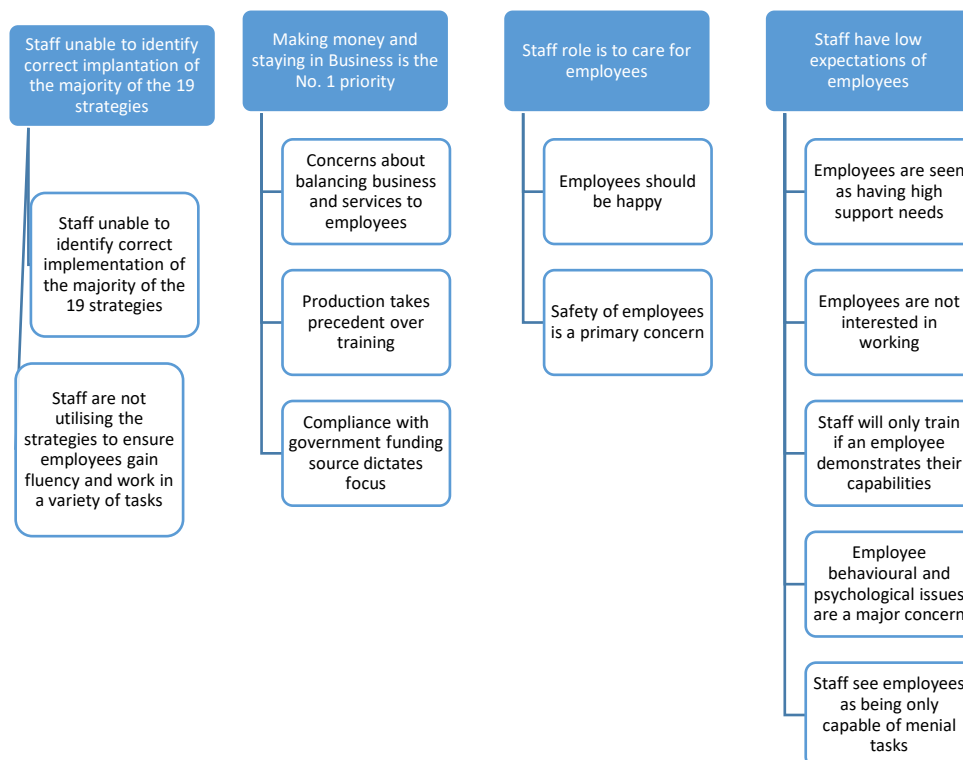


Figure 5.1. Staff interview themes and subthemes.

5.2.2.1 Staff unable to identify correct implementation of the majority of the 19 strategies

Summary of theme:

While staff reported in the questionnaire that they utilised particular strategies, when asked in interviews to explain how they had or would use them, they often did not report accurate implementation of the strategies.

Staff were questioned in the interviews about their use of each of the 19 strategies discussed in the questionnaire. If a participant had answered they did use the strategy, the researcher repeated the definition of the strategy and asked for an example of a time when they used the strategy, so that participants had an opportunity to demonstrate understanding and application of the strategy (addressing Job Performance Theory's second predictor of trainer performance, 'procedural knowledge and skill' (knowing *how* to do it).

The following sections describe staff participant responses and explanations of their use of each of the 19 strategies.

5.2.2.1.1 Show and tell

Show and tell involves demonstrating the task and explaining as you demonstrate. Show and tell was reported by 100% of questionnaire participants as used 'sometimes' or 'regularly.' The use of this strategy was strongly reported by staff in the questionnaire and their interviews confirmed this. [Lisa] stated use of show and tell depended on which employee she was training, and whether they had done the job before, reporting the only reason she would not use this strategy was because she didn't 'want to insult them by, you know, making them think I don't think they know how to do it'. Staff clearly felt this was a useful strategy and commented that the use of show and tell was 'mandatory' [Henry] and that 'most people learn better that way' [Emily].

5.2.2.1.2 Job matching

Job matching is when employee's interests and employer's needs are matched. Job matching was reported by 100% of questionnaire participants as used 'sometimes' or 'regularly'. While all staff reported that employees were job matched according to their interests, it appeared that employees were asked what they might like to do but the reality of employee's perceived competence and availability of work took precedence over employee requests. Staff made judgements on what they felt employees with disability were capable of: Lisa: '... they may not be good enough to do a particular task ...'; Matthew: '... we then will look at them and see where their interests lie. If they're clearly the sort of guys that are going to be reasonably low skilled ...'; Scott: '... so we'll sort of say "okay, we've just brought a four-head filling line in. That would be something I think you would be quite capable of learning how to do but would you be interested in doing that?"'

Production needs dictated staff ability to job match: Lisa: '... we don't always have the work in that they want to do ...'; Sam: 'Well, sometimes we get jobs that come through and because we're in a mad panic to get someone in a job we may not have the ideal person for the job but we put them there anyway ...'

5.2.2.1.3 Prompts/cues

Prompts and cues are physical, gestural or verbal reminders. This strategy was reported by 97.5% of questionnaire participants as used 'sometimes' or 'regularly'. However, staff expressed confusion and frustration over using the strategy, and it was not always utilised to train someone in a job task.

One participant [Henry] voiced his frustration at using prompts/cues: 'Some of the higher support staff [employees with disability], they'll just stop after they've done something and – I don't know, they lose focus or they're still waiting for a prompt, but

even the jobs that they do know they still need prompting; it's just how they are.

Sometimes they [management] think we've got this magic wand that'll stop all that.'

Staff could identify when and how they utilised the strategy, although sometimes staff confused this strategy with a different strategy; for example, Louise: 'Yeah, all the time. We would do *demonstrations* [my emphasis]. We would often have a sample sat in front of them.' In addition, the strategy tended to be utilised for things other than training on a workplace task; for example, Jill: '... prompt them about, you know, more I guess mundane things like pay slips and all the things that we have to collect and stuff like that.'

5.2.2.1.4 Task analysis

Task analysis involves deconstructing a task into smaller sequential steps, so that employees can be taught each step sequentially and learn an entire task. Task analysis ideally should be written individually for each employee for each task they learn.

Task analysis was reported by 95% of questionnaire participants as used 'sometimes' or 'regularly'. However, participants during interviews did not report utilising the strategy as often as reported in the questionnaire; for example:

James: 'I really don't think I've seen any in my 13 years – I know I haven't – actually apply it, sit down, do a task analysis and train someone with it.'

Lisa: 'That's all like future things I'm thinking of bringing in.'

David: '... so personally I think there should be a task analysis on every job but again the jobs change that quickly out there the you can't keep on top of it.'

Task analysis seemed to be something that staff were aware of but the steps were not necessarily written down:

Lisa: '[I do them in] my head at the moment.'

Matthew: ‘I write – well, I write skill assessments, training assessments, which is – I guess I wouldn’t say it’s an analysis; we don’t write them all the time ...’

David: ‘I do try and use – I do break things down into sequential steps so “you do this and this and this and this” but it’s not as formal as what a typical task analysis might look like.’

Participants also mentioned that *high-level* employees (those with lower support needs) were capable of learning without breaking the task down.

5.2.2.1.5 Positive Behaviour Support

PBS involves using a variety of approaches to change an unwanted behaviour. PBS was reported by 95% of questionnaire participants as used ‘sometimes’ or ‘regularly’. PBS is a multifaceted and often time-consuming process but staff seemed to think it was ‘being positive’ as opposed to implementing a full PBS plan. Staff explanations of PBS included ‘giving positive feedback to parents and teachers’ [Louise] and being ‘positive around the employees’ [Scott] and ‘making employees feel okay’ [Jill].

5.2.2.1.6 Individual Training Plans

ITPs are a record of goals (i.e. what the learner would like to learn or is learning). ITPs were reported by 92.5% of questionnaire participants as being used ‘sometimes’ or ‘regularly’.

While staff reported documenting goals, they did not appear to be referred to and utilised as a basis for implementing workplace training. Staff highlighted how production needs take precedence over goals noted in the ITP: Michael: ‘Yeah, well, they have an ITP, an individual training plan, and we also have production needs ...’; Henry: ‘... we’ve done the EDPs (Educational Disability Plan) [ITPs] ... but having

said that sometimes something new might happen, you know, maybe a new job might come in and so we'd have to adapt to that ... it goes back to the business need ...'

Staff comments about the use of ITPs highlighted the focus on meeting accreditation: Emily: 'We have to, yeah; we're obligated.' Employees' high support needs were again commented on: 'I mean, they're supposed to be their goals but it's pretty hard sometimes to get goals for the guys' [James].

5.2.2.1.7 Fading

Fading means that as the skill is learnt, the prompt or cue is faded to a less obvious version. Fading was reported by 90% of questionnaire participants as used 'sometimes' or 'regularly'. Fading seemed to be utilised in an ad hoc manner as opposed to the planning and implementation actually required of this strategy. Three participants gave vague examples of fading: Lisa: 'I'd have to think of specific things but that's just what I do naturally ...'; David: '... just distance yourself'; Henry: '... then I'll come away but still watch from somewhere else every now and then, just go out here and have a look, see how they're going.'

Staff pointed out the inconsistencies of employees with disability work output: Scott: '... with our guys you don't tend to fade away from too many ... you might get a day where you don't have to sort of go "now don't forget to put that down" but then the next day you'll definitely have to say "Hang on. Before you go you need to put that" – so it's just that's the nature of the beast where we work.'

5.2.2.1.8 Reinforcement/reward

Reinforcement or reward is defined as providing something the employee with a disability enjoys other than their usual pay; for example, praise. Reinforcement/rewards was reported by 90% of questionnaire participants as used 'sometimes' or 'regularly'. Staff reported a clear understanding of the use of verbal praise, for example:

Louise: ‘... positive feedback and, I guess, the verbal type of “you’re doing a really good job.”’

Lisa: ‘... they like to hear that they’re doing well from the manager ...’

Scott: ‘... so generally I make sure that there is a congratulations ... basically just walking around and, again, chatting to them.’

Henry: ‘I’m always praising when they’ve done something ... just to give them a bit more confidence that sort of thing.’

Some rewards were given to groups of people rather than recognising individual achievements: Michael: ‘We do rewards like barbecues. It could be a function ...’

One staff participant felt the work itself was a reward: James: ‘I think the reward is the completion of the job ... meeting their goal and hitting their target. I didn’t use – I haven’t been keen on the reward system.’

5.2.2.1.9 Match-to-sample

Match-to-sample is using a correct example of a completed item to show how the task should be completed. Match-to-sample was reported by 90% of questionnaire participants as used ‘sometimes’ or ‘regularly’. Staff participants were able to succinctly describe the match-to-sample process: Henry: ‘... if they’re doing a jig job for instance I’ll actually go and get that part as a finished part and show them what it’s supposed to look like at the end.’

5.2.2.1.10 Job carving

Job carving is finding tasks that an employee with a disability can complete from a larger task or job. Job carving was reported by 89.2% of questionnaire participants as used ‘sometimes’ or ‘regularly’.

While staff reported using this strategy and could give clear examples, their comments raised concerns as to whether job carving was being used to provide only

simplified tasks. For example job carving should be taking a variety of tasks and carving out a new job/position. However staff examples of job carving were descriptions of larger tasks being broken down into simple one and two step tasks. There is a possibility that training beyond these simplified tasks may never be attempted. Giving rise to this concern is Matthew's comment about job carving and what he sees as employee's lack of ability, 'No, we will give them as many tasks as their capability will allow. So, if you've got somebody who's particularly low functioning ... we might restrict the sites that they go to and also the skills that we are going to teach them.'

Perhaps, instead of being a form of 'partial participation' that ensures employees are actively involved in workplace tasks, job carving may instead provide a 'glass ceiling' (Business Dictionary, 2019) that is, an unacknowledged barrier to advancement or job development.

5.2.2.1.11 Shaping

Shaping is rewarding close approximations of required behaviour. Shaping was reported by 83.7% of questionnaire participants as used 'sometimes' or 'regularly'.

Despite many staff reporting use of this strategy in the questionnaire, during the interview, staff reported they did not use it. Others did not seem to have a clear understanding of the concept and checked their understanding of the use of shaping with the researcher. For example, [Michael]: 'Yeah, we do that but we do more of the – first we start off with the visual and then we work back to the emotion, just the smile, so it's – what did you call it, shaping or something?'

5.2.2.1.12 Data collection

Data collection is collecting information on details of employee behaviour or work completed. Data collection was reported by 82.5% of questionnaire participants as

used ‘sometimes’ or ‘regularly’. The data collected seemed to concern evidence for auditors as opposed to being used for training purposes.

Louise: ‘We do a lot of filing noting or if there’s a behavioural issue ...’

Matthew: ‘As I said, we have file notes, things like consent forms for photographs, consent forms for collecting the evidence because obviously they have to consent to us doing that in the first place, so those sorts of things we’re collecting on a regular basis.’

Lisa: ‘I’ll write it in the progress notes ... How much help they needed ...’

Impressively, one open employment staff member reported the recording of data to ascertain quality and speed: Emily: ‘Quality and speed is the primary one ... and their safety ... but I’m collecting data all the time ... we do a comparative with co-workers and then we have that as our benchmark ...’ This data collection may have been prompted because in Open employment, people with disability are paid according to the Supported Wage System (SWS). The ‘comparison and benchmark’ that Emily is referring to is data collection in regard to the SWS, a regulatory requirement.

5.2.2.1.13 Natural supports

Natural supports are training co-workers in the employee’s workplace to provide support and training to the person with a disability. Natural supports were reported by 81.1% of questionnaire participants as used ‘sometimes’ or ‘regularly’. Overall, staff reported a sound use and understanding of this strategy during the interviews, despite it only being ranked 13/19 in the questionnaire in terms of frequency of use: Louise: ‘Yeah ... we would buddy them up with an existing worker.’

Open employment staff during interviews reported using this strategy extensively: Sam: ‘Oh hell yeah. Oh yeah. Look, I just do whatever I’ve got to do to get out of there. I want them to do it.’

5.2.2.1.14 Adaptation

Adaptations involve providing a modification, technology or jig (a device that provides support in the manufacturing of products) to aid the learner to be able to complete a task. Adaptations was reported by 77.5% of questionnaire participants as used ‘sometimes’ or ‘regularly’.

Answers around adaptations were diverse. Some voiced frustration about not being able to access funds for adaptations. For example, Henry had applied for funding to modify equipment to ensure an employee could utilise a piece of production equipment: ‘... we’re asking for \$1,000 and that’s been knocked back ... it’s sad when you see how much people [employees] out there are struggling with what they’re doing.’

Two staff reported the importance of having someone on staff that had the ability to devise and make adaptations. Jigs reported as utilised often aided employees with counting tasks. The researcher noted during tours of the workplaces that adaptations were being utilised extensively, but it seemed apparent during interviews that staff were not recognising the use of adaptations. This may be because they are a constant part of the workplace and therefore not recognised as an adaptation but instead something that is inherently part of the workplace.

All of the Open employment staff participants commented on the lack of necessity regarding the use of adaptations:

Jill: ‘No. I mean of course you would I suppose if you needed to but I just haven’t had to. I can if I need to, yeah, but I haven’t had to.’

Sam: ‘... one of my client’s years ago ... no, I haven’t used it for yonks. I haven’t had any clients. I haven’t had anybody like that for a long time.’

Emily: ‘No, sadly. I’d like to because I’m a designer by heart and I would love more of an opportunity to do that. I haven’t had a lot of need for that but that’s more about the kinds of work environments I’ve been in really.’

5.2.2.1.15 Modelling

Modelling involves providing a demonstration of the required skill, with no verbal explanation. Modelling was reported by 75% of questionnaire participants as used ‘sometimes’ or ‘regularly’. There seemed to be confusion between modelling (without any verbal explanation) and show and tell; for example:

Henry: ‘Usually, yeah, I’ll – like I usually will say “just watch how I do this” so I’ll do it a few times over. Then I would go through it again and I’ll explain [my emphasis] each step as I’m doing it ...’

Lisa: ‘I would basically do that all the time ... we’d show them and correct or sort of say [my emphasis] “That needs to come out. That needs to be turned a little bit ...”’

5.2.2.1.16 Pictures/storyboards

Pictures/storyboards demonstrate the correct sequence of a task. Despite pictures and storyboards being reported by 65% of questionnaire participants as used ‘sometimes’ or ‘regularly’, staff reported not using this strategy during interviews. Participants seemed to think pictures and storyboards were to be used for *communication* rather than training of a workplace task: ‘... we use pictures for noticeboards ... but we don’t use it in our training’ [Michael]. One participant even felt parents were ‘strongly against’ the use of pictures in the workplace [David], because pictures and storyboards carried a childlike connotation and parents felt this was not appropriate for their adult child.

5.2.2.1.17 Self-instruction

Self-instruction involves teaching an employee with disability to use self-talk in a structured step-by-step process to complete a task. The final step is to have the employee covertly talking themselves through the step. Self-instruction was reported by 55% of questionnaire participants as used ‘sometimes’ or ‘regularly’.

Here, staff considered self-instruction as an employee using self-talk to guide them through a task, and while this is certainly part of this strategy, it appears that staff were unsure of the other steps of the strategy, and it was definitely not taught in the structured way that the literature suggests.

Louise: ‘I mean, some of them [employees] use that naturally but it’s something I’ve seen them do and it’s certainly something I encourage them to ...’

Lisa: ‘When I think about it, I’ve probably done it just without thinking about it.’

Scott: ‘... sort of saying to the guys “How would you do this? What would you do? Why would you do that?” so they’re talking their way through how they would process the job ...’

Sam: ‘So I just used some key words and things for him to actually change – the self-talk thing ...’

5.2.2.1.18 Penalty/punishment

Penalty/punishment involves offering an undesirable consequence for a behaviour. Penalties and punishments were reported by 37.5% of questionnaire participants as used ‘sometimes’ or ‘regularly’. Most staff did not admit to using punishments in the questionnaire and many denied using this strategy during the interviews despite inadvertently providing examples of when they had utilised penalties or punishments. For example:

Matthew: ‘No. I mean somebody may find themselves having some disciplinary action for something that’s happened but we don’t ... use punishment ...’

Henry: ‘Oh, it’s not so much a penalty ... but it maybe they can’t use the computer, for instance, during their breaks ... we have to send them home ... they’ll want to go do that job and I’m like “well, no, you’re not going to be doing that ...”’

Jill: ‘Well, I guess it is about a consequence ... there may be some time off work ...’

Lisa: ‘No, because I don’t think that has a place. It depends on who you interview ... Yes, we do.’

5.2.2.1.19 Video modelling

Video modelling is a video recording of correct performance that the learner watches on numerous occasions. Video modelling was reported by 5% (n=1) of questionnaire participants as used ‘sometimes’ or ‘regularly’. During interviews, staff also reported not utilising video modelling. The main reason was the lack of equipment despite the fact that the taping and editing that this strategy requires can be done on most mobile phone devices, which almost all staff had on the desk during the interview. Some staff openly admitted they had never tried video modelling, while others provided erroneous reasons for its lack of use; for example: ‘problem with camera batteries’ [Henry]; ‘never found the need’ [Sam]; ‘don’t have the technology’ [Scott]; ‘never thought of it’ [Emily]; ‘it wouldn’t work for most people here’ [Lisa].

5.2.2.2 Staff are not utilising the strategies to ensure employees gain fluency and work in a variety of tasks

Question 27 in the questionnaire asked staff to rank from 1 to 5 (1 being most time spent) how much time they would spend on training in:

- acquisition (learning a new skill);
- generalisation (teach the same skills across different settings);
- maintenance (ensuring the skill has maintained over time);
- variability (teaching one person a variety of tasks); and
- fluency (accuracy and speed).

The questionnaire revealed that staff spent most of their time training in the following order: maintenance, acquisition, fluency, generalisation and variability. It is feasible that staff spend more time on maintaining task involvement if employees are not being trained in a variety of new tasks.

The interviews gathered further comments on these concepts, which indicated that training for fluency and maintenance may not be occurring. In fact, one staff member [Lisa] even enquired, ‘How do you train for fluency and maintenance when they have an intellectual disability and are very distracted?’ Training for fluency was hampered by staff perception that working faster may not be safe. Fluency was also seen as *self-driven*; staff felt that experience equates to an increase in speed. Staff also stated that machines the employees are employing dictate the speed an employee needs to work at. Generally, staff training for fluency appeared limited; not surprising, given staff perception that working faster may be unsafe and that experience alone will increase fluency.

The training of new skills (acquisition) may occur only when the employee is newly employed. Sam reported training is ‘quite intense at the beginning but it’ll fade off really quickly ...’

Training employees for a variety (variability) of tasks appeared to depend on how staff perceived the employee’s abilities; for example, David stated, ‘Well, obviously, we’ll look at someone’s strengths and weaknesses and we’ll see what jobs

they can and can't do. If they've employed someone and 99% of the jobs they can't do then it makes it difficult ...', while Scott felt the *higher-functioning* employees could do *anything*.

5.2.2.3 Making money and staying in business is the No. 1 priority

Summary of theme:

This theme indicated that staff considered ensuring meeting compliance for receipt of ongoing government funding was the main priority. For ADEs, there was an additional priority – making money from business customers – even though at times these priorities conflicted with quality service provision for those with disability.

Staff were candid about the pressure to make money, as demonstrated by the following participant comments:

Louise: '... there's a business pressure ...'

James: 'The challenge of my role is trying to run a viable business.'

David: 'The financial side's a big deal for them [management] and making sure that the job's profitable ...'

5.2.2.3.1 Concerns about balancing business and services to employees

This subtheme included concerns about trying to balance business needs/government regulations and supporting employees with disability; for example, staff working in ADEs spoke of a focus on production as opposed to a focus on employees' needs:

Henry: 'Well, the production is what their [management] main focus is and we can all understand that, but everyone's forgetting who we have employed here.'

Louise: 'So because businesses are forced to survive within a highly competitive environment right now those roles [business roles] are often quite highly valued because we've got to drive the business whereas the service side becomes what

we do or our bread and butter but it's not – there's almost a dichotomy of trying to marry that in together.'

It was clear that while staff in principle agreed with accreditation and Disability Standards, they believed that the reporting clashed with providing the best service to employees with disability. Open employment staff were concerned about the dichotomy of trying to do their best by the employee with a disability while still meeting government funding contract regulations. Comments included:

Sam: 'So the challenge is trying to find the middle ground between keeping in business and providing an appropriate service. That's been a challenge for the management team, to change the focus from being totally about the clients to actually changing. If we keep doing what we're doing we're going to go out of business because there's all these little artificial star ratings and various little KPIs. It's about finding smart ways to meet those targets but also the targets aren't necessarily the best thing for the clients. So, the challenge is trying to find the middle ground between keeping in business and providing an appropriate service.'

Jill: 'What does it mean for the clients that you're trying to service? You know, perhaps give the person a go to be an independent worker but does that mean we go from three-star ratings to two-star ratings and we don't exist anymore? So how realistic is that? That is ridiculous. So here we are trying to make people – or support them to be independent but then we're probably not going to exist if we get to a two-star rating, so you'd have to say that those sorts of things are just crazy.'

5.2.2.3.2 Production takes precedence over training

ADE staff articulated that training only happened when it suited business/production needs. For example, Henry commented that only skills that were needed by the business would be taught: ‘... they’re talking do they really need that person to be having that skill and it goes back to the business need more so than what the individual would like to do.’ Michael concurred: ‘If production says “we need this skill taught or we need this behaviour changed because things aren’t going right here” that’s a priority.’ Other participants stated that ‘training is built in around the production needs’ [Henry]. Further, Lisa explained while her role was to provide training to employees with disabilities when urgent production jobs came in, she would be ‘just helping in production’. Staff roles of completing production and completing training were very blurred, with both [James] and [Michael] stating that because of production schedules, staff didn’t have time to provide training to employees.

David optimistically felt that making a profit in the business would enable staff to provide training. Several staff felt while there is money for purchasing equipment or machinery, money for training is not available: ‘... when it comes to the training side of things, which we’re now talking about personnel and time, we don’t get that [James].’ This comment is of particular significance given that James’ role was manager of an employment service. It appears he was unaware of the provision of resources for training clearly stated in the Grant Agreement.

5.2.2.3.3 Compliance with government funding source dictates focus

As would be expected, rules that the funding body dictates have much influence on what staff focus on.

The importance of meeting the funding body rules was highlighted by participants; in fact, one interviewee [Matthew] stated that his job was to ‘maintain

government funding and the collection of evidence to support that funding'. Scott agreed that 'every decision we make is based on the funding agreement, is based on the compliance, is based on what the auditors are thinking'. Most interviewees discussed *prioritising* items that were *audited*.

The strong influence of the funding body's expectations was highlighted during further comments by [James and Matthew], who felt that often government rules were *exaggerated* by management and staff, but this then assisted gaining both staff and employee compliance on issues.

The focus on government compliance is no doubt related to the desire to maintain receipt of government funding. Scott commented on how much easier certain manager's jobs were when they received money from the government rather than having to generate money from a business income: 'I could put a frog in that seat because that site runs so well and that would still make the money.' The suggestion here is that, for ADEs at least, if you can increase government revenues then there is not so much pressure to run a profitable business.

5.2.2.4 Staff role is to care for employees with disabilities

Summary of theme:

This theme demonstrates that staff feel their role is to ensure employees with disability are happy and safe. Staff did not seem to focus on the importance of employees learning new skills.

5.2.2.4.1 Employees should be happy

Staff commented that the important thing was that employees with disability were happy. Participants seemed to value employee happiness above all else; even above the tasks an employee may be involved in at the workplace, as Sam's comment demonstrates:

‘I just burst into tears, seriously, I’m so frigging happy because that’s all it takes. The job’s going to get as boring as bat shit ... you’re going to have some fantastic relationships with the people that you work with. That’s really what we – that’s what it’s all about, is actually a job is just a job ...’

It was clear that staff derived pleasure from seeing employees happy; for example, Lisa stated: ‘I look at the supported employees. If they’re happy and if I’m sort of happy with what I’m getting done, I just take that.’

5.2.2.4.2 Safety of employees is a primary concern

Safety is of paramount importance in any workplace and employee safety was a primary concern and priority for staff. Participants consistently mentioned *prioritising safety issues*, and *safety taking top priority*. In fact, so strong was this theme, one participant commented: Sam: ‘They don’t care how it happens really as long as no one’s going to die ...’

Business production, employee happiness and safety were all reported as priorities, and two participants summarised this impeccably: Matthew: ‘Your headspace is safety, productivity, quality’; James: it’s ‘about making sure that the guys [employees] are happy and safe.’

Training was influenced by safety concerns and this even hampered training; as Matthew explains: ‘So if you’ve got somebody who’s particularly low functioning, that would be unsafe in certain areas, we might restrict the sites that they go to and also the skills that we are going to teach them.’

5.2.2.5 *Low expectations of employees with disability*

Summary of theme:

This theme indicates that staff see employees with intellectual disability as generally having high support needs. Employees need to display competence before

training is attempted. Power seems to be with employee's existing knowledge not staff training ability.

5.2.2.5.1 Employees are seen as having high support needs

Staff seemed to feel the employees with disabilities had limited skills. Some staff blamed the parameters of the disability support pension continually becoming 'tighter and tighter' [Louise] on employees with high support needs entering services.

Some staff blatantly stated their lack of confidence in employee abilities:

Michael: 'Some of them [employees with disability] don't recall what they did before smoko.'

James: 'I don't want that guy, he's no good. He can't do anything.'

Scott: 'Well, I don't necessarily want somebody who can only sweep the floor.'

Lisa: 'I have my concerns with how much people are paid and the fact that people get any pay when they just sit there and do nothing all day, just don't do anything.'

Henry: '... he's got the intellect but he's – physically, he's limited.'

5.2.2.5.2 Employees are not interested in working

Some staff felt that some employees with disabilities were not interested in working. David highlighted that some employees want to retain their disability pension rather than increase their hours, commenting also that, 'we've got people here who actually don't want to work but their parents have sort of pushed them to ...' Matthew felt that some employees were *lazy* and not wanting to work *quicker*.

5.2.2.5.3 Staff will only train if an employee demonstrates capabilities

Most staff reported not having a formal way of assessing employee skill level but staff still made assumptions about an employee's capabilities. Staff indicated they only train if they consider the employee capable. Staff said if they thought an employee

was *capable of learning* or *if their intellectual ability would suit the job*, they would consider training. However, ADE staff did not seem to have any means of formal assessment of an employee's capabilities; in fact, staff admitted to not utilising any assessments and relying on *assumptions* and *observations*: Henry: 'No, we just go by what we know, from what we see.' Conversely, open employment staff reported they assessed employee skills in the areas of *behaviours*, *communication* and *presentation skills* and provided an on-the-job trial (*work experience*). If this then assisted with assessing what types of jobs an employee might enjoy and be capable of was not clear.

5.2.2.5.4 Employee behavioural and psychological issues are a major concern

Behavioural and psychological issues were of concern for both ADE and open employment staff. Staff felt that employee mental health issues were challenging, and often staff did not receive the support they needed to deal with the issues. Staff commented on being 'a bit out of our depth' [David] and noted 'it would be lovely to have a little bit more support' [Louise].

Sam even commented on having 'a number of clients who have attempted suicide and so that – when you get the phone call that can be pretty full on'. The same participant also commented that while employees were capable of the jobs they are placed in, it is 'the other stuff [mental health] that stops them from doing [work]'.

5.2.2.5.5 Staff see employees as being only capable of menial tasks

Staff felt employees with disabilities were only capable of menial tasks. Staff mentioned employees' inabilities frequently, for example, not able to do labelling because of the required precision, not able to complete tasks that require higher skills, not having the intellect to understand, struggling to get lids on, and being able to complete only one step of a job.

5.2.3 Staff comments on the NDIS

Qualitative interviews are likely to provide a wide range of data, perhaps because participants feel free to ‘relate their own unique experiences’ (Dyer, 1995, p. 43); and hence, some of the data may not relate directly to the specific research questions of the study. While not explicitly asked, during interviews, participants raised the issue of the NDIS. Staff were *apprehensive* about the implementation of the NDIS. Staff understanding of the NDIS (yet to be implemented in employment services at the time of interviews) was that, under the NDIS, employees with disability will need to pay to attend work. Staff concerns included:

- Families choosing to spend NDIS money on holidays and day activities rather than employment.
- Disability employment services will cut prices but staff feared this would lead to disability employment services not being able to provide quality services, and therefore, employees being ‘ripped off blind’ [Scott].
- Employment services will only choose the more capable employees because they will not be able to employ less productive employees as they currently do.
- There will be confusion for employees around having to pay to come to work and being paid a wage by the services. Services will have a difficult time getting this concept across.

5.3 Summary

Despite questionnaire participants reporting that they utilised the majority of the 19 strategies listed, during interviews, participants could only describe the use of four in accordance with the literature (show and tell, match-to-sample, reinforcement and natural supports).

There were eight staff interviewed from ADEs and only three staff from Open employment, which may limit this study's capacity to highlight differences between the two services.

Several factors that influence the provision of training for employees with disability were highlighted during the interviews. First, training time was dictated by production needs. Staff prioritised jobs that would meet compliance for the funding body and the provision of training did not seem to be a focus of staff or management. Staff emphasised the importance of the happiness and safety of employees rather than acquisition of skills. Last, staff appeared to have little confidence in the abilities of employees, citing physiological and behavioural issues as barriers to productivity. Staff also made non-elicited comments about what they saw as the possible negative impacts of the introduction of the NDIS. Further discussion on both the staff questionnaire and staff interviews is included in Chapter 6.

Chapter 6: Discussion of Staff Questionnaire and Staff

Interview Findings

6.1 Introduction

This chapter is divided into three main sections: Discussion of findings from staff questionnaire, followed by staff interview results and discussion, and finally discussion of commonalities and differences in findings between the two sets of data.

6.2 Staff questionnaire

Impact of ageing workforce in disability employment sector

Forty-eight staff from both Open employment and ADEs responded to the questionnaire, which primarily determined if staff were familiar with the 19 training strategies presented.

There were 27 females and 21 males who responded to the questionnaire. The majority of respondents (58.4%) were in the 40–60-year age group. The age of the majority of respondents highlights an ageing workforce (National Health Workforce Taskforce, 2009). One of the concerns of an ageing workforce is that while older employees are often highly skilled, they may experience health declines (Gahan, Harbridge, Healy, & Williams, 2017). Further, 40% of respondents had worked in the disability field for only two–five years, so they did not have extensive experience in the disability employment field. High staff turnover in the disability field is an issue (Byrnes & Lawn, 2013) that can lead to difficulties in training and keeping track of individuals with disabilities' progress (Kirby, 1997). Further, Dowse, Wiese and Smith (2016) predicted an Australian disability workforce shortage, especially for staff skilled in working with people with intellectual disability. This presents several issues,

including a shortage of competent staff and a lack of quality supervision and mentoring for new staff. An ageing workforce, staff with limited disability experience and a predicted disability staff shortage present many challenges in supporting people with intellectual disability and complex support needs (Dowse et al., 2016).

Questionnaire Responses

Over a third of online respondents did not answer the later questionnaire questions, thereby reducing the data for analyses. The five hard-copy questionnaires had complete data. The hard-copy questionnaire was eight pages in length, while the online version incorporated 13 screens. It is assumed that the formatting of the online questionnaire may have 'felt' long and led to some online respondents not completing all questions.

Fewer Open Employment Questionnaire Responses

The rate of return of questionnaires was 15% for Open employment staff and 57% for ADE staff. Normal rates of return for electronic questionnaires are reportedly less than 60% (McPeake, Bateson, & O'Neill, 2014). Some possible explanations for the lower rate of return for Open staff include they are reportedly extremely busy with administrative burdens (National Employment Services Association Ltd [NESA], 2014) and may not have prioritised the time to complete the questionnaire. Alternatively, Open staff may not have seen the relevance of this study to their work. The title of the questionnaire 'Training in Disability Services' may have discouraged possible Open employment respondents. The AFDO (2010) stated there is an increase in people with psychiatric disabilities accessing job supports through Open employment, and this group of employees would not necessarily need the variety of training strategies discussed in this study. Hence, staff would not have as many opportunities to utilise the training strategies discussed in this study. Further, in Open employment, there has been

a reported loss of expert practices that support people with moderate to severe intellectual disability in the workplace (AFDO, 2010). It is therefore possible that Open employment staff may not have related to the terms and strategies discussed in the questionnaire. Moreover, Fan and Yan's (2010) systematic review found that the respondents to web questionnaires are more likely to be those that are diligent—if staff are not using these strategies, they are less likely to participate in the questionnaire.

Reported Use of Strategies in the Questionnaire

The majority of staff had been in their current position two–five years and reported having the same number of years' experience in the disability field. In particular, systematic instruction, which incorporates many of the strategies discussed in this study (i.e. task analysis, prompting and fading), was popular in the 1970s and 1980s; perhaps trainers had not been exposed to these strategies in the same way as someone who had been working in the disability field longer. This was examined during interviews with TAFE/RTO lecturers and discussed in Chapter 8. Those working in the field for 10–20 years appear to use the strategies more than staff with less years' experience in the field. For example, staff with 10 ten years' experience working in the disability field utilised fading and modelling more, that was found to be statistically significant. These aforementioned suggest significant practice in the field may be required to become confident and competent using the strategies (Motowidlo & Van Scotter, 1994).

It was also found that those who did not have tertiary qualifications reported using the strategies (in particular, task analysis, show and tell, prompts and cues and PBS) more than those with a degree or higher. This raises significant questions as to their knowledge of the strategies, how they learnt them and the quality of their learning. It appears that a greater amount of formal education (i.e. degree or above) does not

translate to greater use of strategies. Higher qualifications may be more related to supervisory roles and areas of administration. Congruently, authors have called for university-trained rehabilitation and disability specialists to perform administrative duties, such as completing assessments and conducting research (Friedly, Akuthota, Amtmann, & Patrick, 2014; Goodley, 2017). Perhaps those who have received formal education in the strategies are not providing the majority of training to employees; that is, they are in supervisory or management roles that require less hands-on/training provision. Managers used the strategies least; this is to be expected, as they would have less time to dedicate to one-on-one training because of leadership (rather than technician) commitments (Khurana, 2007).

Vocational trainers reported learning the strategies mainly ‘in-house.’ Training provided on the job is generally comprised of a large applied element (Harris et al., 2000). It was evident that if training was provided in a practical way (i.e. staff were able to practise the strategies), this might have increased staff use of certain strategies. Additionally, during staff interviews, staff reported practical training was the best form of training. Staff consider the best approach to develop skills ‘trial and error’ (Windley & Chapman, 2010). However, the authors caution this style of learning for increasing skills should be of concern because staff risk inconsistent learning leading to incongruous skills. How staff learn about the strategies may be an important factor in whether they know and use the training strategy and the level of skill or confidence they have in using it (Grossman & Salas, 2012). Research similarly indicates that hands-on practice is a more effective way of learning for staff (Ahlstedt, 2000; Annison et al., 1993; Grey, Hastings, & McClean, 2007). The perceived value of the training received by staff also appears to relate to whether they use the strategies. From information gathered from the questionnaire and staff interviews, on-the-job training is preferred by

staff. Staff reported preferring their own training taking place in their workplace because it was more time efficient. When linked with the practical nature of training, this suggests that specific targeted and practical training delivered in the workplace may be the best way to learn the training strategies. Therefore, it was important to investigate if TAFE/RTO lecturers are teaching these 19 strategies with a practical component during the Disability Certificate (see Chapter 8).

Staff Time

Staff reported spending most (56%) of their time maintaining skills associated with reasonably mundane tasks (i.e. packaging). Variability training (a variety of tasks) was the fifth item staff trained for, after maintenance, acquisition, fluency and generalisation. These results suggest employees with disabilities might be bored with the repetition of tasks and like a greater variety of or more challenging tasks. More complex work might reduce behaviours of concern, such as short attention span and hyperactivity (Gold, 1973). This will be further explored in the training plan data and employee interviews (see Chapter 7), to assess whether employees are requesting different jobs/tasks.

Level of Disability of Employees

The severity of the disability of the employee seemed to be related to the increased use of two strategies. Mann-Whitney U tests indicated that the use of ITPs and adaptations was greater for staff who worked with employees with moderate/severe/profound disabilities than for staff who worked with employees with mild disabilities. The increased use of adaptations is to be expected, since employees with higher support needs would require and benefit from support from assistive technology (Jakovljevic & Buckley, 2011). Conversely, the use of ITPs should not be influenced by the employee's level of function, since every employee is required to

have a written plan that outlines how supports ‘are assessed, planned, delivered and reviewed ... and enable individuals to reach their goals’ (Australian Government, 2013, p. 7).

The degree of disability also influenced the use of strategies. Duker et al. (1989) found that people with milder disabilities receive more active support training in accommodation settings. However, in this study, staff working with employees with a mild disability utilised the majority of strategies less as opposed to staff working with employees with a moderate disability. This would appear credible given employees with mild disability would reasonably require less supports. Two strategies were exceptions: self-instruction and job matching. Staff utilised these two strategies more when working with employees with a mild disability. However, during interviews staff considered self-instruction a strategy that employee’s themselves applied (i.e. employees covertly or overtly talking to themselves). This as opposed to a strategy staff needed to offer training in. This gives further credence to the finding that staff utilised the training strategies less with those with a mild disability. If training provision to those with mild disabilities is minimal and staff do in fact spend more time providing supports to those perceived as most able, as Duker et al. (1989) stated. Then this could leave those with severe/profound disability receiving even less training and completing menial or repetitive tasks (Australian Human Rights Commission, n.d.).

Training Offered to Employees with Disability

The number of employees that each staff member was responsible for training varied widely. Open employment staff provided training support to an average of 16.45 employees while ADEs supported a much higher number of employees (M=54.26). This number is especially significant given services reported working mainly with those with a moderate disability. The high number seems counterproductive to providing the

necessary time that concentrated one-on-one training would necessitate for those with moderate-to-severe intellectual disability. In addition, staff made several suggestions they felt would assist with an increase in provision of training to employees with disability, including allocated training times, less paperwork, a staff member dedicated to training and changing the position description of staff. This call for changes to their role is not surprising, since Wheeler's (1990) study highlighted the confusion disability vocational staff experience regarding their roles and responsibilities. Staff appear to be performing a variety of tasks, and this may mean training is not being prioritised. The importance of staff being allocated specific training roles (including holding specific skills in systematic instruction) and having separate staff for personal and emotional support have been identified previously (Beyer, Hedeboom, Morgan, Regenmortel, & Samoy, 2002).

6.3 Staff interviews

Eleven staff were interviewed: three from Open employment and eight from ADEs. Open-ended interview questions assisted to identify staff procedural knowledge and use of the 19 strategies and staff motivation to provide training.

6.3.1 Staff use of the 19 strategies

The strategies that were clearly articulated during interviews included task analysis, reinforcement, show and tell, match-to-sample, ITPs, natural supports, job matching and job carving. While these strategies were described by participants satisfactorily, it did not always mean they were being utilised as intended. For example, task analysis was not always 'written down', with participants stating they 'did it in their heads'. The use of job matching seemed to be dictated more by production needs and availability of jobs than the need of the individual employee. While job carving was being utilised, it appeared to be driven more by a perceived need to oversimplify tasks,

with no consideration given to the possibility of training more of the task or the whole task.

Interestingly, staff stated two strategies—punishments/penalties and adaptations—were not being utilised; however, while staff did not admit to using penalties or punishments, they often inadvertently gave examples of when they had provided a penalty or consequence to an employee with disability. This lack of insight into the use of penalties may be of concern given it is reported that people with intellectual disability are often subjected to restrictive practices (Disability Rights Now, 2013). Lack of acknowledgement of the use of punishments could create a culture of acceptance of abuse and make addressing or highlighting abuse more difficult. Adaptations were also not mentioned as utilised. In fact, some staff mentioned their frustration at the lack of money available for adaptations, but the researcher noticed many adaptations being utilised in the workplaces during tours of services. This misunderstanding may arise because adaptations are a constant and inherent part of the workplace and therefore not recognised as such. Alternatively, staff may have desired different, more expensive or high-tech adaptations that they were unable to purchase. Open employment staff may not utilise adaptations if they are perceived as stigmatising in the workplace or if employees with lower support needs do not need assistive technology.

6.3.2 Staff concern for employees with disabilities

Staff members' caring natures were evident, with staff commenting on deriving pleasure from seeing employees with disability happy. Other studies have documented similarly. For example, staff have reported going beyond a worker-client relationship and not seeing their support role as a job (Cookson, 2014; Windley & Chapman, 2010). In this study, staff perceived 'happiness' for employees in terms of relationships more

important than the type of jobs or tasks they were involved in. Safety was understandably a priority; however, the strong emphasis on safety appeared to be restricting the skills employees are taught. Concerns for safety often override the desire to empower people with intellectual disability (Alaszewski, Alaszewski, & Parker, 1999; Morris, 2004); whether this focus on safety is a necessity or excessive (i.e. whether training could enable employees to work safely) warrants further scrutiny.

Perhaps the most disparaging staff perception is the belief that employees with disabilities are incompetent (Johnson, Bloomberg, & Iacono, 2008). Staff generally felt they supported employees with high support needs. Some staff comments included that employees with disability were 'lazy', 'did nothing', were only capable of the most 'menial of tasks' and 'not interested in working'. Often staff attributed employees' poor work performance to the high incidence of mental health and behavioural issues. Generally, staff felt ill-equipped to deal with the various behavioural and psychological issues of employees. Congruently, AFDO (2010) stated they were concerned about the increase in the number of employees with psychiatric disability in employment programs and the competence of staff working with this client group.

Often, staff comments on employees' lack of ability were based purely on perception, as most staff admitted to not having any formal process to assess employee skills. There are several instruments for the vocational assessment of those with intellectual disability, but these were not utilised. For example, the tests cited in Kirby (1997), the Adaptive Functioning Index (Marslett, 1971), the Trainee Performance Sample (Irvin, Gersten, & Heiry, 1984) and the test of Interpersonal Competence for Employment (Foss, Cheney, & Bullis, 1983) all test a range of work behaviours and skills, including social skills, and provide the trainer with direction on the kind of assistance that may be most effective. Staff made their own informal 'assessments'

(guesses) and would only attempt training if they ‘thought’ an employee was ‘capable’. Only one Open employment staff member reported having a way of assessing employee capabilities; however, comments did not suggest this then translated into increased training or increased belief in employees’ potential. Extensive research has shown that people with low IQs can learn complex tasks (Bellamy et al., 1975; Clarke et al., 1955; Gold, 1972; Rhodes, 1986), but staff did not seem to recognise that with quality training provision, employees may be able to complete much more than they are currently. Staff attitude of the capabilities of employees with disability may have a significant impact on training. A meta-analysis of 88 attitude-behaviour studies found that attitudes greatly predict future behaviour (Kraus, 1995).

6.4 Divergence of staff questionnaire and interview data

A discussion of combined questionnaire and interview data helped develop clearer explanations of the data. Both similarities and differences gleaned from data sources are important in the accrual of knowledge (Turner, Cardinal, & Burton, 2017). A summary of similarities and differences of questionnaire and interview data can be found in Table 6.1.

Table 6.1

Summary of Similarities and Differences Between Questionnaire and Interview Data

Category	Similarities	Differences (Questionnaire)	Differences (Interviews)
Overall use of the 19 strategies	1/19 reported as not utilised	18/19 strategies reported as utilised	14/19 strategies not described accurately
Show and tell	Staff utilised		
Job matching		100% of staff reported utilising the strategy	Available work took precedence over matching employee skills
Prompts/cues		98% of staff reported utilising the strategy	Utilised more for reminding employees

Category (continued)	Similarities	Differences (Questionnaire)	Differences (Interviews)
Task analysis		95% of staff reported utilising the strategy	Not written down or utilised as the literature suggests
Positive Behaviour Support		95% of staff reported utilising the strategy	Incorrectly described as speaking 'positively'
Individual Training Plans (ITP)		93% of staff reported utilising the strategy	Upon examination ITPs were not completed correctly
Fading		90% of staff reported utilising the strategy	Utilised in an opportunistic manner rather than structured implementation
Reinforcement/reward	Staff utilised		
Match-to-sample	Staff utilised		
Job carving		89% of staff reported utilising the strategy	Utilised to simplify tasks but not utilised as the literature suggests
Shaping		84% of staff reported utilising the strategy	Unable to be adequately described
Data collection		83% of staff reported utilising the strategy	Utilised for collection of wage data and/or case notes as opposed to training data
Natural Supports	Staff utilised	Natural Supports	Staff utilised
Adaptation		78% of staff reported utilising the strategy	Staff reported not utilising the strategy; however, adaptations were observed in workplaces
Modelling		75% of staff reported utilising the strategy	Confusion over modelling and show and tell
Pictures/storyboards		65% of staff reported utilising the strategy	Not reported as a training strategy, used for notice boards / communication
Self-instruction		55% of staff reported utilising the strategy	This strategy was considered as employees 'talking to themselves'
Penalty/punishment		63% of staff reported not utilising this strategy	Gave examples of the use of penalties/punishments
Video modelling	Staff did not utilise		

Category (continued)	Similarities	Differences (Questionnaire)	Differences (Interviews)
Time spent on training	Majority of time spent on administration tasks	Staff who felt they spent the right amount of time on training utilised self-instruction most	Self-instruction was considered 'self-talk' by employees with disability, not a structured strategy
Training for fluency		Staff reported training for fluency	Staff could not give examples of how they trained for fluency
Training for variability	Not utilised		
Quality of training		Staff reported the provision of on-the-job training was excellent or good	Inadequate descriptions of the majority of strategies. Staff spent much time on administration duties

6.4.1 Staff competence

The questionnaire revealed a large proportion of staff (84%) had had previous training roles in either or both the disability field and another sector. Staff (60%) had a tertiary qualification and nearly 40% of those had a Certificate in Disability or Employment Services. It was therefore anticipated that staff would be reasonably competent at training. Despite questionnaire respondents reporting that they utilised the majority of the 19 strategies listed; during interviews, participants could only describe the use of four in accordance with the literature (show and tell, match-to-sample, reinforcement and natural supports). Overall, 15 of the 19 strategies were either described as not utilised (n=1) by interview participants or not described in accordance with the literature (n=14). This discrepancy between questionnaire and interview results could be related to the fact that only some questionnaire respondents were interviewed. It is possible that questionnaire respondents not interviewed had a sound understanding of the strategies. Even so assumptions about vocational training staff declarative knowledge and their procedural knowledge may well be drawn from the

majority of interviews. Staff discrepancy in knowledge was also demonstrated in Smidt, Balandin, Sigafoos and Reed's (2009) review. Smidt and colleagues (2009) appraised disability staff knowledge (declarative knowledge) and application (procedural knowledge) after staff received communication-based training and challenging behaviour training. The review examined 12 studies that reported outcomes of staff declarative knowledge and actually impact on staff practices (procedural knowledge). Overall, the findings indicated that while staff knowledge of 'what to do' was improved with staff training there was little impact on staff behaviour in the workplace. Indicating staff training alone is not sufficient to encourage staff provision of training to those with disability.

A further anomaly from this study included staff reporting in interviews not using pictures/storyboards for training but 65% stating they did use pictures/storyboards in the questionnaire. During interviews, staff reported using pictures and storyboards for communication and noticeboards but not training; it appears the additional information gathered during interviews assisted with gaining a more accurate response to this questionnaire point.

6.4.2 ADE and Open differences

There were not many differences between ADE and Open employment staff use of the 19 strategies; however, two areas stood out. First, ADEs used adaptations more. In this study adaptations were also reportedly utilised more for those with severe disabilities. Given adaptations may be necessary for those with severe disabilities to assist with performing tasks with greater ease and independence (Barnes, 2000). These findings do support the belief that generally ADEs support those with higher support needs than Open employment services (Australian Government, 2014). While increased funding and training for adaptations is recommended for disability employment staff

(Sauer et al., 2010). It is also argued that previously ‘abled-bodied’ was an essential prerequisite for inclusion in the workforce, currently, an “able mind [those without an intellectual disability] may be far more important” (Barnes, 1999, p. 225). If Open employment staff are not using adaptations as often as ADE staff, this suggests that Open employment staff are possibly supporting people with psychological disability rather than those with more severe intellectual disabilities (Australian Government, 2014).

Second, fading and data collection were used more in Open employment. The use of fading suggests Open staff are removing their support from the workplace to provide autonomy and independence to employees. Data collected were cited as ‘comparisons with co-workers’. These comments refer to data collected for wage comparisons. In Open employment, people with disability are paid according to the SWS (Supported Wage System), ‘set up for employees with disability who are not able to perform jobs at the same capacity as any other employee’ (Department of Social Services [DSS], 2019, pp.1). The SWS allows employees to receive wages based on their workplace productivity, as compared with an ‘abled-bodied’ worker completing the same task/s. The ‘comparison’ that staff referred to is data collection in regard to the SWS, a regulatory requirement, and not data that could lead to the provision of training for acquisition or fluency.

6.4.3 Video modelling

Staff revealed in the questionnaire that they did not use video modelling, and this was reiterated in the interviews. Staff stated they were familiar with the strategy but did not use it. Their reasons for not utilising the strategy indicated a lack of understanding on how to use it. For example, not having the necessary technology was cited often; however, modern mobile phones are more than capable of producing an

acceptable video that could be utilised to train employees. Fletcher (2006) found that despite the State of Texas mandating the integration of technology into classroom instruction, teachers were not utilising assistive technology to promote learning for students, nor using a variety of devices such as video cameras. Barriers included lack of training in technology which led to a reluctance by teachers to integrate technology into their instruction. Other educators have stated while they have the knowledge and skills to utilise technology they do not have the time (Cummings, 1998). These same barriers may be affecting vocational trainers in employment settings. For example, vocational trainers may not have received sufficient training in video modelling and use of associated technology (this will be explored further in Chapter 8). Given staff reported an average of 61 people to supervise and requested less administration duties, this suggests staff may not have time to utilise technology and implement the video modelling strategy.

6.4.4 Show and tell

The predominant use of show and tell suggests this is the easiest or most convenient method to train and/or perhaps a lack of confidence in utilising other strategies. Show and tell involves demonstrating the task and explaining as it is demonstrated. Show and tell was reported by 100% of questionnaire respondents as being used ‘sometimes’ or ‘regularly’. The use of this strategy was strongly reported by staff in the questionnaire and their interviews confirmed their use of this approach. Staff clearly felt this was a useful strategy and commented that the use of show and tell was ‘mandatory’ with ‘most people learning best’ through show and tell. It is important to note that this method of training should be considered a strategy utilised primarily for those who are very capable. The other 18 strategies discussed in this thesis are often highly structured and time-consuming techniques that support learning for those with

intellectual disability. Staff use of show and tell replicates Molnar and Watts' (2000) findings in the general workforce; they state that trainers 'train the only way they know how – show and do' (p. 4).

6.4.5 Job matching

Job matching was reported by all staff. Initially, this suggests that employees with disabilities are being placed in jobs they have indicated they would like to try and that training occurs to achieve success in the associated tasks. Job matching was reported by 100% of questionnaire respondents as used 'sometimes' or 'regularly'. While all staff were adamant that employees were job matched according to their interests, it appeared that while employees were asked what they might like to do, the reality of employee perceived competence and available work seemed to take precedence over employee requests. ADE staff made judgements on what types of tasks they felt employees with disability were capable of and only offered jobs related to their perceived skill level. Open employment staff stated they would place people in jobs they knew were not necessarily 'ideal' but staff felt pressured to place someone into a newly available position.

6.4.6 Time spent on training

While providing support on non-production tasks is part of working with employees with disabilities, questionnaire respondents reported spending only 25% of their time on direct one-on-one training. Administration tasks took nearly half of the time available for training. Large amounts of time spent on administration and less time spent on direct training suggest staff may be trying to record information to maintain government funding rather than to achieve productivity through training. During interviews, both Open employment and ADE staff communicated a strong focus on prioritising items audited and linked to DSS funding agreements; in fact, staff stated

that most decisions were made purely to ensure compliance. This in itself is not surprising as receipt of government funding is essential for service survival. The focus on compliance is not necessarily a problem, so long as audited items are linked to quality outcomes for employees with disability. However, staff felt that government regulations hampered the provision of quality service to employees with disability. Appeals for replacing “the focus on rules and regulations with a focus on quality training” (Mank, Buckley, Cioffi, & Dean, 1996, p. 248) have been made previously. Additionally, in Australia, calls for simplification of reporting for government funding have been acknowledged (DEEWR, 2012b; NESA, 2014). DSS contracts have been accused of being “outcome-focused and target driven” (Byrnes & Lawn, 2013, p. 48), leading to staff often in conflict between acting in client best interests and fulfilling government contracts (FaCHSIA, 2010). Hence, staff are accused of not prioritising client needs if these are seen to involve more time and resources to implement (Byrnes & Lawn, 2013). Further, staff who are overworked may interact less regularly with clients and not participate in as many positive exchanges with them (Bethay, Wilson, Schnetzer, Nassar, & Bordieri, 2013). Therefore, staff attempting to meet impractical government compliance issues can create a cycle of less training as opposed to quality outcomes for employees with disability. Further, while the Disability Standards previously included Standard 10, ‘Service recipient training and support’ (Disability & Carers, 2012), this has been removed under the new Disability Standards 2013 (DSS, 2015), which could reasonably lead to a decrease in focus on training, causing further concern regarding training becoming less of a priority.

One staff interviewee [David] optimistically felt that making a profit in the business would enable staff to provide training; however, government funding should already be utilised towards delivering training. Part B.3.6 of the Comprehensive Grant

Agreement Schedule v4.1 (DSS, 2014) stated that funding money can be used to ‘provide practical supports in a suitable work environment including ... (c) training (social skills training, work readiness training, work preparation training, on-the-job training and other training)’ (p. 2).

Further pressures that may be affecting available training time were expressed during ADE staff interviews. Staff clearly articulated feeling pressure to make money from their associated businesses and indicated that training of employees with disabilities only happened if it suited production needs. The dichotomy of business versus production pressures for sheltered employment staff is not new (Tom Martin & Associates, 2001). Bennell (1999) referred to this as a ‘survival business’, where appropriate skills training could enhance productivity, but management are reluctant to engage in it. The focus shifting from the needs of people with disability to commercial targets has been referred to as ‘mission drift’ (Commonwealth of Australia, 2010; Spall, McDonald, & Zetlin, 2005; Tom Martin & Associates, 2001). However, balancing business needs is not necessarily mutually exclusive to training, and skills development can play an important role in enhancing production (Rosen, Bussone, Dakunchak, & Cramp, 1993)—more productive employees’ equal greater efficiency and a more profitable business, in turn leading to less reliance on government funding.

Some 64% of questionnaire respondents said they spent ‘the right amount of time’ providing direct on-the-job training support to employees; this group also reported they used self-instruction the most. During interviews, it was apparent that staff defined self-instruction as an employee using self-talk to guide themselves through a task, and this is certainly part of this strategy. However, staff were unsure of the other steps of the approach, and it was definitely not being taught in the structured way that the literature suggests. While staff feel the provision of training time is the ‘right amount’, it appears

they may not be aware of the exact steps or procedures regarding how to implement the strategies, and therefore, unaware of the time necessary to apply quality training.

Questionnaire respondents were asked to rank the time spent on training for acquisition, generalisation, maintenance, variability and fluency; fluency was ranked third. The interviews revealed that training for fluency was hampered by staff perception that working faster may not be safe, that experience alone will increase fluency, and that machinery dictates the pace employees can work at. This indicates that staff training for fluency may be very limited. Training for fluency (speed and accuracy) is important as low performance rates have prevented otherwise competent individuals with intellectual disability from securing and maintaining employment (Halle, Schloss, & Schloss, 1989). During interviews, there was no discussion from trainers on the variety of strategies available to assist with increasing employee fluency. There may be a psychological barrier as to the futility of increasing employee fluency and also a lack of skills and knowledge on how to increase fluency.

Variability training was ranked last; almost double the number of staff reported spending training on new rather than existing employees. This provision of training for new recruits only, especially in semi-skilled jobs, is also found in mainstream workplaces (Kitching & Blackburn, 2002). Other disability studies have also reported this finding. Longitudinal observations of clients in an Open employment program revealed there is a trend for reduced contact between the client and their training advisor over time (Botuck, Levy, Kramer, Levy, & Rimmerman, 1992). Those in jobs for a five-year period or more were usually provided with vocational support only when the worker or employer requested it (Beyer & Robinson, 2009). This suggests that once able to perform a particular task/s, employees are not taught new skills or a variety of tasks that might lead to further job development including job rotation or promotion.

6.4.7 Quality of training

The majority (51.6%) of questionnaire respondents reported their perception of the provision of on-the-job training delivered to supported employees in the disability employment field was of 'good' or 'excellent' quality. While staff in the questionnaires stated they utilised all but one of the 19 strategies sometimes or regularly, during interviews, staff seemed unable to adequately describe the use of the majority of strategies listed. The strategies reported as being utilised but not adequately described during interviews included prompts/cues, fading, modelling, shaping, PBS, self-instruction and data. Prompting employees with intellectual disability to ensure they are on task and remember steps of job tasks is understandably a well-utilised strategy, given that poor working memory is associated with intellectual disability according to the DSM-5 (American Psychiatric Association, 2013). However, the description of the use of prompts and cues provided during interviews was confused with other strategies and examples provided included reminding employees of 'pay slips' rather than use during one-on-one production task training. Renzaglia, Wehman, Schutz and Karan (1978) reported that staff use of prompts has generally been limited to reminding employees to 'hurry up' or 'work faster'.

Fading did not seem to be planned in a systematic manner; instead, staff described the use of this strategy in an opportunistic way. Ironically, if fading had been utilised correctly, staff may not have voiced frustration over employee prompt dependency (not working without a prompt). Staff confused modelling with show and tell, and shaping was not adequately described. PBS was considered speaking in a 'positive' manner, as opposed to the multi-step approach required to address a behaviour of concern. The main data collected seemed to be 'case notes' rather than data collected during training, which should include monitoring and analysing learners'

responses to aid the trainer to determine the progress of the training (Brown et al., 2015; Wolery, Jones Ault, & Munson Doyle, 1992). Staff were unsure of the procedure of self-instruction, and instead, considered employee 'self-talk' a use of this strategy. Overall vocational trainer's explanations of a variety of strategies was inadequate for several main reasons. Firstly, they did not appear to utilise the strategy as suggested in literature. Secondly, they considered how they were utilising the strategy was indeed correct. The difficulty here is that if staff are not aware of errors in utilising the strategies, they will not seek to gain correct knowledge or change their behaviours (O'Dell & Grayson, 1998).

6.4.7.1 Missing data

The large percentage of missing data in later questionnaire questions (i.e. 27-31 were missing 35% of participant responses) had the potential to distort those question's data. In this study the missing data was 'missing at random' (MAR) (Soley-Bori, 2013). That is, missing data is not related to variables but possibly related to the length of the questionnaire. Therefore, missing data were excluded for analysis, reducing representativeness of the sample by shrinking the sample size for responses to the questions not answered (Kang, 2013).

6.5 Conclusion

Combined data from 48 questionnaire respondents and 11 staff interviews found both synergies and inconsistencies between the two sets of information, which aided in developing further understanding of the provision of on-the-job training by disability vocational trainers. There were instances of stark differences in staff questionnaire and interview findings. Staff reported in the questionnaire they utilised the majority of the 19 strategies; however, staff interviews highlighted that staff did not appear to have an adequate knowledge of how to implement the strategies effectively. This indicates staff

have a declarative knowledge but not a procedural knowledge of the strategies. Therefore, it is important to examine the training staff receive in the 19 strategies examined in this study. These data and findings will be presented in Chapter 8.

Chapter 7: On-The-Job Training from the Perspective of Employees with Disability

7.1 Introduction

This chapter presents views and perceptions of employees with intellectual disability regarding on-the-job training, including examination of their Training Plans. This addresses the following research question: How do employees with disability view the training provided?

7.2 Results

7.2.1 Overview

7.2.1.1 Employee interviews

Some 115 pages of transcript from interviews with 15 employees with intellectual disability were coded into 10 identified subthemes. From those subthemes, the four overarching themes emerged: (1) employees wanted more training, (2) employees displayed competence, (3) positive and negative experiences of employees regarding their employment and (4) use of training strategies as reported by employees.

7.2.1.2 Employee Training Plans

The three themes to emerge from analysing 540 entries in Training Plans (dated 2006–2014) included (1) staff training on a variety of skills other than workplace production skills, (2) training provided did not always relate to the goals recorded and (3) Training Plans were incomplete.

7.2.2 Employee interviews

The findings are based on data analysis of 15 employees with intellectual disability from four ADEs. The interview questions aimed to ascertain employee perceptions of training and type of training received. Each employee was asked nine

questions (Appendix H Supported employee interview questions); non-solicited remarks were also recorded. Participants have been given pseudonyms to protect their identities. Duration of three interviews were not recorded because there was a tape recorder malfunction during these interviews. These participants' interview answers were recorded manually by the researcher.

Table 7.1

Data Collection Summary (Employees)

Employees with disability participants*	Where worked	Duration (min/sec)
Karen	ADE1	12:43
Linda	ADE1	8:52
Denise	ADE1	15:25
Richard	ADE1	14:24
Robert	ADE1	12:02
Adam	ADE2	Not available
Ena	ADE2	Not available
Joseph	ADE2	Not available
Peter	ADE4	13:09
Susan	ADE4	8:34
Brett	ADE3	18:52
Tamara	ADE3	8:19
Dixon	ADE3	8:44
Eric	ADE3	15:30
Grace	ADE3	15:14

Note: *pseudonyms used

7.2.3 Themes

The analysis of employee interviews resulted in four themes emerging. These included:

1. Employees would like more training.
2. Employees displayed competence.
3. Positive and negative experiences.

4. Use of training strategies as reported by employees.



Figure 7.1. Pictorial representation of themes and subthemes from employee interviews.

7.2.3.1 *Employees would like more training*

While not explicitly canvassed by the researcher, employees indicated they would appreciate more training than they were currently receiving. This was demonstrated by comments that form the following three subthemes.

7.2.3.1.1 Employees felt the amount of training received was minimal

Overall, employees thought training was not received very often. Dixon reported receiving training ‘Now and again but not much’. He could not remember the last time he received training, and stated training happened ‘every couple of years’. Brett reported that training occurred ‘... not very often; it’s very rare’. Three employees said they had either requested or been promised training they had not received.

Two employees had different experiences. Eric (a new employee) reported receiving training for ‘many days or weeks’ and Grace reported receiving ‘ongoing training ... whenever needed’. While Grace stated satisfaction with the amount of training she received, her later comments indicated she would appreciate further

training, for example, ‘... that was so long ago that I need a refresher’ and ‘I do want to do HTML. We haven’t had training on it yet’.

7.2.3.1.2 Tasks employees would like to receive training on

Employees highlighted tasks on which they would like training but were not currently receiving. For example, nine employees identified tasks they would like to be involved in but would need some training on before they could complete the tasks including cooking/piping (cake decorating), making coffees, packaging, speaking engagements, welding, web design and dismantling. All these tasks are jobs available in their current workplace, and therefore, presumably tasks employees could be trained in.

Employees highlighted the reasons why they felt they were not receiving training including Peter: ‘Difficult job for someone with a vision impairment’, Susan: ‘Tried all the tasks available’ and Eric: ‘Job no longer available’.

Six employees said they didn’t want to learn anything new. Their comments included Linda: ‘No, I’m fine where I am’, Susan: ‘I’ve tried them [tasks] all’, and Peter: ‘Well, too difficult with my hands – no, too difficult with my eyes and too difficult for me’.

7.2.3.1.3 Production dictates training

Employees reported that production dictated the type of training they received. Production is the process of constructing/assembling goods for the service’s customers. Customers provide a major stream of income for ADEs and customer satisfaction must be considered a priority if ADEs wish to maintain earnings.

Employees indicated that production as opposed to the need for employee skill development dictated the type of training an employee receives. For example, Susan reported lack of work did not allow her to participate in the task she enjoys most: ‘A long time ago I used to work out the back but at the moment they haven’t got that much

work out the back at the moment to do metalwork, but when they've got metalwork, I work out the back'. Eric confided: 'Well, a couple of weeks ago this job pulling computers apart and I don't know what they were but they were thin, like that, and a bit like Frisbees but they weren't, and about 10 of them or 20 of them, I don't know how much, and yeah, [staff name] showing me what to do so I pulled them apart and yeah, got them like easy ... but there's – they've all gone now'. This indicates that the type and amount of training provided to employees with disability seems prescribed by the jobs are available.

7.2.3.2 Employees displayed competence

Summary of theme:

Employees' comments demonstrated self-assurance in their knowledge and ability; and qualifications and years' employment indicated competence too.

7.2.3.2.1 Employees had confidence in their own abilities

Not only did employees want to receive more training and increase their skills, they possessed the confidence to embark on further training. Confidence in their individual abilities are aptly displayed in the following quotes:

Dixon: I can do everything.

Brett: I am multidextrous. If I'm asked for a job I'll do it the best I can. I can actually learn quite quickly how to do the job.

Brett: I'd say I'm advanced, I'm pretty self-independent.

Peter: I said 'we're not cartoon characters, but we are human beings'. We are just – we have special disability in different ways and different body shapes, and that's how I operate.

7.2.3.2.2 Qualifications and education

Employee qualifications, certificates and training was discussed during interviews. Five employees had specific Certificate II qualifications including Business Studies (2), Retail and Horticulture, and a Certificate III in Business Administration. Staff confirmed these qualifications (i.e. from their records). TAFE/RTOs are utilised by employees with intellectual disability to obtain qualifications and learn living skills. Employees discussed having received training from TAFE or an RTO in the following areas: cooking, literacy, business management, welding, industrial sewing and IT (InDesign, Illustrator and Photoshop). Courses that employees recollected learning in the workplace included self-advocacy, manual handling, personal power training, numeracy and literacy, housekeeping, health and safety, toolbox meetings, Disability Standards training, bullying and harassment, cooking meals, t-shirt painting, fire safety and ear management / noise training.

Most employees had received extensive education and training, however it appears employee tertiary qualifications were not being utilised in the current workplace, with most employees undertaking a variety of packaging tasks. From descriptions (and the researcher's observations), it appeared that many of the tasks had minimal complexity (i.e. they were one-step manufacturing tasks). Employees reported working on making and checking 'dollies' (light switches), 'pump truck' (moving pallets), packaging nappies, gift baskets, greeting cards, coloured bags, lollies/food/chocolates/wine, laundry powder, soap and hospital items, weighing items to be packaged, cleaning/polishing cutlery, covering books, catering/making sandwiches, doing dishes, sweeping floors, using a glue gun, putting rubbers on screws, labelling, making metal tables and chairs, fixing computers, spot welding, heat sealing, recycling, welding and graphic design.

7.2.3.3 Positive and negative experiences of employees regarding their employment

Summary of theme:

Employees commented on a variety of positive and negative experiences, including the tasks they liked and disliked, their relationships with staff and negative experiences associated with working in Open employment.

7.2.3.3.1 Jobs liked and disliked

Most employees reported enjoying the tasks they worked on via comments including ‘[enjoying] everything’, ‘[enjoying] all sorts’, and ‘it depends on the day’. More specifically, tasks that were enjoyed included labelling, packaging, gluing, pump truck, covering books, quality checking and metalwork. When asked which jobs they did not enjoy, the majority reiterated they enjoyed the tasks they did at work. Jobs reported as disliked included woodwork, labelling and packaging. Reasons for objections to the tasks included being disinterested (for example: ‘Packing balloons you count to 15 and put them in a box, I got sick of it’ (Adam)); not liking standing (for example, ‘Not happy to stand up for the job’ (Tamara)); factory conditions (for example, ‘Working in the factory because I’m an asthmatic and it’s dusty and I don’t like that’ (Brett)); and task not suited to their abilities (for example, ‘Too difficult with my eyes and too difficult for me’ (Peter, blind participant)). One participant (Ena) reported being removed from a job because someone else had made a mistake: ‘I don’t do cleaning anymore. I didn’t like cleaning toilets because someone drank a capful of disinfectant and I got into trouble for it’.

7.2.3.3.2 Enjoyment of training, work and staff

Generally, employees reported enjoying training:

Adam: I enjoy training.

Tamara: Yeah, I love it.

Dixon: Likes training because 'Learn something new'.

Grace: Yeah, when it's on a topic that I like.

Not only did employees enjoy training but unsolicited comments indicated a strong pleasure in working, for example:

Karen: It's a very good, good place to work in.

Tamara: I like the job here.

Robert: I love my job.

Further, during interviews, employees demonstrated their rapport with staff via friendly banter, via comments including:

Peter: I like to come in here and have friends around me. I feel confident in this building ... Can't go wrong in this joint because I love this place so much. I grab them [with my] big arms and give them the squeeze.

Brett: The [staff] are nice.

Karen: She [staff name] helps me by talking to people who have problems and who need say like some more training courses or something like that.

Susan: Nice supervisors work here; they're all nice and I get on with them all right.

7.2.3.3.3 Negative experiences

Employees reported negative experiences, although only one employee reported a negative experience at their current workplace: 'Sometimes I get picked on, sometimes. If [name] starts saying something about me, I just let it go past my head ...' [Denise]. All interviewed employees currently worked in ADEs; however, six employees mentioned they had previously worked in Open employment. Asked why they left Open employment, they cited relationship issues, for example:

Denise: ... he just went past and he knocked my hat off all the time and I didn't like it.

Richard: ... they weren't helping me and I wasn't helping them so it was a mutual agreement that I left. The union reps weren't very, very helpful, they all sort of like [unrepeatable language] and sort of like ... I left because of personal problems.

Eric: When I started off in the video shop, that didn't last long because the guy was Italian or Greek and he treated disabled people like shit and so I didn't last long there.

Negative training experiences were also reported. One employee participant [Brett] did not think the training currently provided was relevant for him and offered valuable solutions to improve current training: 'The [best time] to do training is in the morning, like everyone's still aware. The afternoon's terrible as get tired after a long morning at work. Because it's afternoon when most orders come in'. He further criticised training by stating that he felt his questions were not answered and some training wasn't 'properly thought out'.

7.2.3.4 Training methods reported as utilised by staff

Summary of theme:

Employees mainly reported show and tell as the way they were trained and did not report any adaptations currently being utilised in workplaces.

7.2.3.4.1 Show and tell the dominant training method

Employees generally reported staff utilised show and tell as the predominant training strategy when they received training; comments included 'doing the work', sitting and listening, staff explaining to / telling them, staff watching, 'simple

terms/wording', learning via 'magic'. Some employees gave clear descriptions of the way they were trained:

Robert: Train for – show me how to do it properly. They show me.

Adam: They show me. Staff teach me how to do it right.

Susan: They sit me down and they tell me what I had to do and they put labels on ... No, they just walk away and just let me do it and come back after.

Karen: They show you how to do it first. Then they get the person who they're training to help make like another one or something. Then once they've gotten the hang of it, they sort of like just watch them to see if they can do it themselves; that's pretty much how they train people.

Linda: He shows you what to do ... he showed me how to do that and I've been on there since.

Brett: Say if there's a different job or different procedure [we're doing] he'll show us how to do it for the first three times, or whatever, and get us into a [inaudible] to how to do it properly ... try and do some stuff which you basically learn from doing actually the work.

Richard: Show you step by step what to do and then once you get the hang of it you do the job the best you can ... Explain it, show you what to do. Then when you get the hang of it ... [Now I've got] a handle of the jobs I don't need any more supervision.

7.2.3.4.2 Adaptations

Adaptations are a modification, technology or jig to enable the learner to complete a task.

Most employees did not recognise the use of any adaptations. The researcher noted during tours of the workplaces a variety of adaptations. Adaptations may be

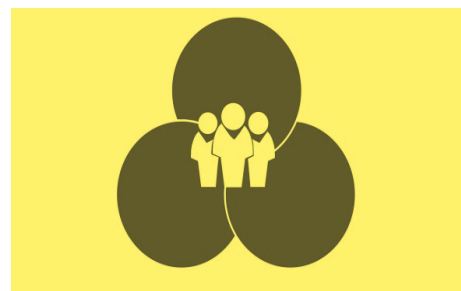
utilised, but because they are a common part of the workplace, they are not recognised as a modification. One employee who worked in IT reported the use of (his own) electronic tablet to assist him in his job.

Three of the interviewed employees had vision impairment and would presumably benefit from the use of adaptations; one of these employees reported staff ‘putting their hands on mine’ during training sessions. The other two were not aware of the use of any accommodations. Employees were conscious of possible adaptations as one employee with vision impairment (that worked in graphic design) stated she would need a bigger screen in the future. One employee with vision impairment reported not being able to complete a task because of their visual disability. This possibly signifies a reluctance by staff to purchase adaptations. Or as suggested during staff interviews, staff are applying for funding for adaptations but not receiving the government aid.



Employee interview themes:

1. Employees would like more training.
2. Employees displayed competence.
3. Positive and negative experiences.
4. Use of training strategies as reported by employees.



Employee Training Plan themes:

1. Staff are training on a variety of skills other than workplace production skills.
2. Training provided does not always relate to the goals recorded.
3. Training Plans were incomplete.

Figure 7.2. Themes for employee interviews and employee Training Plans

7.2.4 Employee Training Plans

Employee Training Plans provide a written record of the training received by an individual employee. Access to employee Training Plans further built on the

information employees had provided in their interviews. The Training Plans are audited documents, and therefore, should be an accurate record of all training provided to an employee. Examination of the Training Plans made it possible to confirm training provided and classify the training into categories.

The same 15 employees who were interviewed also gave permission for their Training Plans to be examined; they worked in four different ADEs, and 540 individual entries were examined.

Training Plans "... document a person's goals and needs and how the disability service provider(s) will support them to meet those needs" (Victorian Government, 2009, p. 8). In different settings, they are given different titles, but regardless of their title, the Training Plan should include what the employee will learn and the corresponding supports required to achieve their employment aspirations. Dates on when training has occurred and if the goal has been achieved or ongoing training required should also be recorded in the Training Plan.

Training Plans for 2006–2014 were examined. A range of 3 months to 7 years, 11 months, average: 3 years, 8 months of 15 employee Training Plans was examined. All Training Plans had a similar purpose – to record employee workplace goals. There was a variety of names for the Training Plans, for example:

1. Employee Training and Support Record
2. Record of Training and Goal Review
3. Individual Training Plan (ITP)
4. Employment Assistance Plan (EAP).

Table 7.2

Training Plans Date Range

Organisation	Employee name	Date range of Training Plan	Total time of Training Plan
ADE3	Dixon	20/8/08–30/1/14	5 years 5 months
ADE3	Eric	6/12/13–March/14	3 months
ADE3	Grace	24/3/11–20/2/14	2 years 11 months
ADE3	Tamara	14/2/06–30/1/14	7 years 11 months
ADE3	Brett	9/4/10–21/2/14	3 years 10 months
ADE1	Richard	May 2007–Dec 2013	6 years 7 months
ADE1	Diane	Mar 2010–Sept 2014	4 years 6 months
ADE1	Karen	21/12/12–31/7/14	RTO training only
ADE1	Linda	Feb 2009–Sept 2014	4 years 10 months
ADE1	Robert	Nov 2010–May 2014	3 years 6 months
ADE2	Adam	3/12/09–11/11/13	3 years 11 months
ADE2	Ena	22/11/10–21/10/13	2 years 11 months
ADE2	Joseph	19/2/13–26/3/14	1 year 1 month
ADE4	Peter	7/7/09–8/8/13	4 years 1 month
ADE4	Susan	24/6/09–9/9/14	5 years 3 months

Ideally, Training Plans should include at least the following information:

1. Goals: ‘Goals are behavioral statements of change that the individual with developmental disabilities is expected to accomplish with a 1-year-period’ Kaplan and Kauffman (1990, as cited in Gardner & Chapman, 1990, p. 150–151).
2. Corresponding objectives: Objective/short-term goals are steps towards the accomplishment of the goal. Objectives explain how each goal will be systematically achieved and should include the condition and criteria and be measurable (Storey & Miner, 2011).

3. Corresponding resources and materials: Resources and materials used to reach the stated goal or objective (Dagnan & Sturmeay, 1994) may include staff that will carry out the training, and adaptations and training strategies that will be employed.

By examining the Training Plans for the goals, objectives, resources and materials, the following themes were ascertained:

1. Staff trained on a variety of skills other than workplace production skills.
2. Training provided did not always relate to the goals recorded.
3. Training Plans were incomplete.

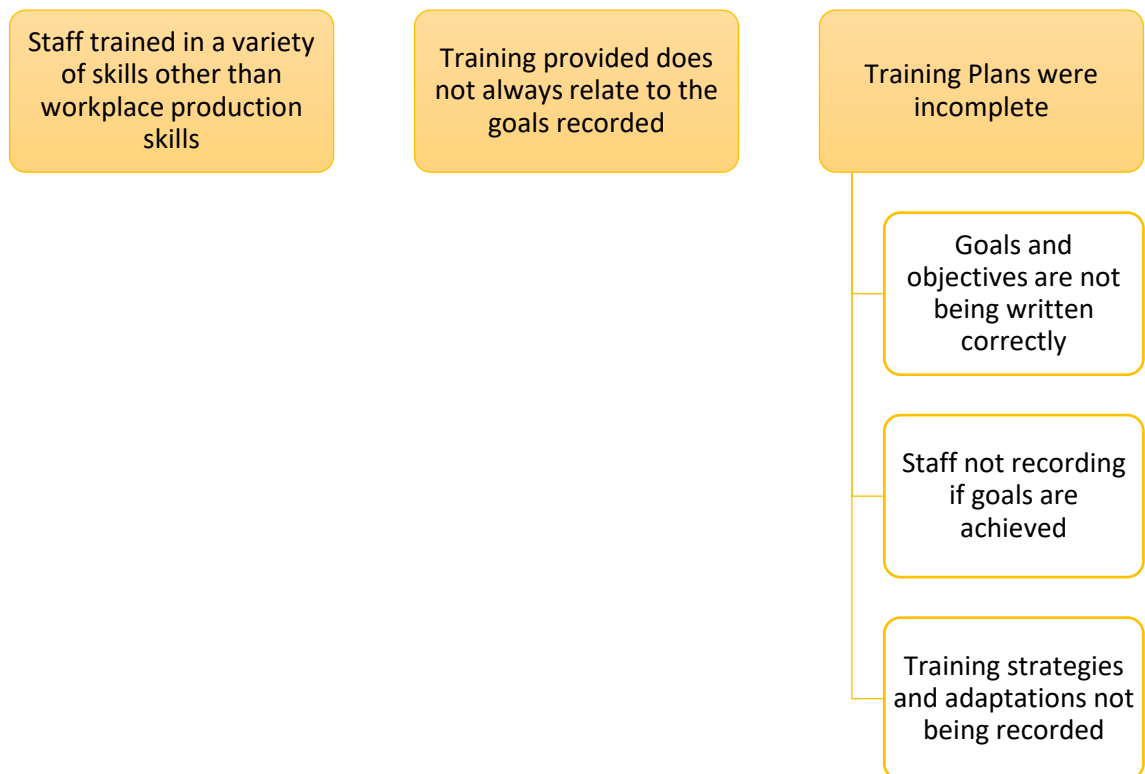


Figure 7.3. Pictorial representation of themes and subthemes of employee Training Plans

7.2.4.1 Staff trained in a variety of skills other than workplace production skills

Summary of theme:

Training Plans indicate that staff spent equal amounts of time training employees with disability on non-production tasks.

From 540 entries listed in the Training Plans, 212 goals were identified. The goals were further divided into the following categories of training:

- Production training (n=115), that is, training that leads directly to the completion of a product.
- Instruction to staff or client (n=7), that is, a reminder to staff or a client to complete a task.
- Addressing behaviours of concern (n=14), for example, inappropriate displays of anger or frustration and making inappropriate loud noise.
- Certificate (n=12), that is, training provided by RTOs or TAFE.
- Legislative (n=9), that is, mandatory training such as in manual handling and Disability Service Standards.
- Personal development (n=5), for example, training that supports communication skills and working in a team.

Goals recorded were often broad, for example, ‘follow workplace health and safety’, ‘become more efficient’, ‘communicate in workplace’, ‘settle into packaging’, ‘endeavour to make better choices’ and ‘refrain from silly behaviour’. These broad statements or goals did not include any corresponding objectives or resources/materials, which left the goal somewhat ambiguous and perhaps difficult to achieve.

Some goals did not relate to work, for example, ‘I want to get my own place and get married’; however, they were obviously articulated by the employee and therefore recorded by the organisation. While this request may seem arbitrary, this employee’s

workplace did offer a course on developing friendships and relationships outside of work hours that could be relevant in the circumstances.

A total of 212 goals was recorded, 54% of which related directly to production training, implying that 46% related to other kinds of training, for example, certificate, legislation, personal development and behaviours of concern. This indicates that ADEs provide much more to employees than mere production support to complete a work task. However, 26.8% (n=57) of the goals were 'instructions' to staff or the employee with disability. Despite these 'reminders' or 'instructions' to staff and employees being recorded as goals, they cannot in seriousness be considered goals. If the 'instructions' category is removed, 19% of goals were related to 'other' kinds of training and 54% to production training.

There was confusion over the differentiation between goals and objectives in the Training Plans; hence, objectives also need to be considered. Some 52% of objectives achieved were related to production training. This indicates that ADEs are spending almost equal time on providing training that is not directly related to production tasks, again highlighting that ADE staff provide a wide variety of supports and training to employees with disabilities.

Some 9% of the goals were delivered by a TAFE/RTO. This, and the information provided by one organisation of the extensive training delivered by their RTO to employees, indicate that ADEs may be very receptive to utilising TAFE/RTO/Certificate training for their employees.

7.2.4.2 Training provided does not always relate to the goals recorded

Summary of theme:

Training listed in employee Training Plans did not have an obvious relation to recorded goals or objectives.

Training provided did not always relate to the goals listed in the Training Plans, indicating that either goals are being written incorrectly or that training is provided opportunistically rather than planned.

7.2.4.3 Training Plans incomplete

Summary of theme:

Three areas indicating incomplete Training Plans were observed: (1) goals and objectives were not written correctly, (2) if goals had been achieved, this was not recorded and (3) use of training strategies and adaptations were also not recorded.

7.2.4.3.1 Staff not writing goals and objectives correctly

There was obvious confusion in the Training Plans about the difference between a goal, an objective, case notes and the necessity to record related resources and materials.

Some 67% of the goals met the criteria ‘behaviour statements of change’ (n=142), while 33% (n=70) did not.

A total of 104 objectives were recorded in the Training Plans but only 50% were written correctly, all from one organisation. For example, many objectives did not include a condition or criteria and thus could not be measured.

Table 7.3

Correct Goals per Organisation

	Organisation	Frequency	Percentage
Valid	ADE3	59	41.5
	ADE1	41	28.9
	ADE2	26	18.3
	ADE4	16	11.3
	Total	142	100.0

Resources/materials were listed in the Training Plans correctly 75% (n=131) of the time; for example, 'Create and follow a checklist to make sure all steps are followed and quality standards are met' and 'Practical demonstration. Opportunity to practise under supervision. Feedback guidance'. In the other instances, resources and materials were listed in vague terms; for example, 'make sure area is cleaned regularly and equipment/work area is where it should be', 'Find out and maintain quality standards on required jobs' and 'at least one day a week'. While resources were sometimes mentioned, the person to provide the resources was rarely noted.

A clearly set out training plan form may assist trainers to provide necessary supports to assist employees to meet their workplace goals. The organisation that had the largest percentage of goals and objectives achieved also had the best/clearest Training Plan form; for example, the Training Plan included a separate space to include resources/materials that served as a prompt for staff to include these details. The plans also indicated that each task had been broken into steps/levels, which would assist with training of an employee as, once they had completed Level 1, for example, it would be obvious it was time to train on Level 2 of the task. Conversely, the organisation that had the form that could be considered the least clear/most complex (for example, included unrelated information such as case notes) had no goals recorded as completed. This may indicate that a well set out/defined training plan form is useful in ensuring employee goals are met.

Further problems with information provided in the Training Plans included case notes being listed as goals; for example, 'Prompted to stop making inappropriate noises', 'Spending 45 minutes in toilet block' and 'Prompted to ask for assistance'. These may be case notes that indicated support offered to an employee but should not be considered goals. In addition, what should have been recorded as an objective or

resources/materials were often listed as a goal. These difficulties further indicate staff confusion around writing goals, objectives and stating resources/materials.

7.2.4.3.2 Staff did not record goal achievement

Only 14% of the goals listed were recorded as achieved. However, one organisation did not have a place to record achievements and it is possible that other documents that support the Training Plans exist that may provide extra information about goals achieved. However, such documentation was not provided to the researcher. The goals most likely to be achieved were production goals (72%), which were delivered in-house 97% of the time. It appears that the process of completing a Training Plan and writing a goal does not automatically mean the goal will be achieved or revised. Further, goals that were coded 'legislative' (i.e. manual handling and OHS&W) should have an achievement rate of 100%, but this was not observed.

7.2.4.3.3 Use of training strategies and adaptations/modifications not recorded

Of the 19 training strategies examined in this study, only two—match-to-sample and demonstration (modelling)—were mentioned in any of the 540 Training Plan entries. Adaptations were only documented twice in the Training Plans. It is unclear if organisations are not utilising training strategies and adaptations or if they are not recording their use in the Training Plans.

7.2.5 Summary

Employee interviews and examination of their Training Plans revealed significant findings, some of which have not been previously reported in disability employment services. Employees with intellectual disability reported they enjoyed the work they were involved in, despite requesting training on other tasks and not utilising skills they had learnt in Certificate qualifications. Consistent with staff interview and questionnaire findings, employees reported the main training strategy utilised by staff

was show and tell. ITP data showed that staff in ADEs are providing training and supports in a wide variety of areas other than production. Furthermore, ITPs were often not completed correctly and rarely did training provided elate to an individual's goals.

7.3 Discussion

7.3.1 Employee interviews

There are many reported benefits of including people with intellectual disability in research. For example, the research reflects more accurately the views of those with intellectual disability; it also increases self-esteem and learning for those with intellectual disability (McDonald, Conroy, & Olick, 2016; Minkes, Townsley, Weston, Williams, & Tyrell, 1995). Despite these benefits, there has been limited empirical research in regard to community participation (including employment) of those with intellectual disability (Verdonschot, De Witte, Reichrath, Buntinx, & Curfs, 2009). One of the strengths of this study is that it provides the perspectives of on-the-job training from employees with intellectual disability. When employee interview and ITP data is combined with staff questionnaire and interview data, findings can be both strengthened and provide additional insight.

7.3.1.1 Need to increase training

Staff indicated in the questionnaire that they generally felt they spent the 'right amount of time' on training employees. However, employees had different experiences; with many reporting, they did not receive training 'very often', and only two employees reported satisfaction with the amount of training received. One of these, Eric, was a new employee (6 months). Staff questionnaire respondents reported they provided training most regularly to new or work experience employees; this employee finding supports staff claims. Furthermore, longitudinal studies have also revealed a trend for reduced staff contact with employees with disability over time (Beyer & Robinson, 2009; Bray,

2003; Botuck et.al., 1992). While staff indicated they spent the right amount of time on training they also revealed they supervised a high number of employees, had high level of administration duties and they lacked understanding on how to utilise some training strategies. Staff perception may be influenced by their ability to balance numerous other duties. This may lead staff to feel limited time dedicated to training is sufficient.

Furthermore, staff explanations on their utilisation of the training strategies would result in less time being employed than if they conducted the strategies according to literature. Staff did not seem aware to apply the strategies correctly they would essentially need to spend more time providing training. Therefore, it is possible that employee requests for increased training is warranted.

7.3.1.2 Employee skill development

The employees with intellectual disability indicated they enjoyed training. However, employees also mentioned a myriad of tasks they would like to receive training in, which they were not currently receiving. Employees were noticing other tasks in the workplace that they would like to participate. They had a strong desire or motivation to learn new tasks. Other studies have also reported similar findings of workplace satisfaction but a desire for advancement. For example, employees with disability have previously reported they enjoyed earning money and being productive but also wanted increased hours and desired to work somewhere different (Bray, 2003; Timmons, Hall, Bose, Wolfe, & Winsor, 2011). Furthermore, employees with disability have cited boredom as the reason they wanted to work (Timmons et al., 2011) and boredom as the reason they wanted to work somewhere else (Bray, 2003). These combined comments indicate that staff should be focusing more on providing alternative positions or job rotation so employees can continue to develop skills and ensure job satisfaction.

7.3.1.3 Social relationships

Employees reported both negative and positive experiences at work. Positives included enjoyment of tasks and the people they worked with, including staff. Negative experiences conveyed were almost exclusively related to issues with co-workers while in Open employment. These findings replicate Akkerman, Janssen, Kef and Meininger's (2014) study results. Their literature review examined job satisfaction of people with intellectual disability working in both sheltered and integrated employment and found that job satisfaction was related to social relations at work and physical demands. Similarly, employees interviewed in this study reported the main jobs that were disliked were those where they were required to stand for long periods or those that affected their health (e.g. caused asthma). This highlights the lack of true job matching.

7.3.1.4 Lack of job matching

The majority of employee participants had received extensive further education including tertiary qualifications at Certificate I and II levels. However, these tertiary-level skills were not directly related to the tasks employees were involved in at their current workplace; for example, the employee with a Certificate in Administration was involved in packaging and kitchen tasks. While job matching was claimed to be utilised by 100% of staff (see Chapter 4), there is an obvious difference between employees' tertiary qualifications and the tasks they are involved in. Other studies have emphasised that workers with disability are significantly more likely to be skill mismatched than non-disabled employees (Jones & Sloane, 2010). This study highlighted that employees seem to be overqualified for the tasks they are currently involved. Results of mismatching employee abilities include task avoidance (Thomson, Czarnecki, Martin, Yu, & Martin, 2007). One of the main concerns reported by both Open and ADE staff was employee behavioural issues, and it is possible that behavioural issues are

sometimes borne out of boredom because of a lack of job matching. With behavioural issues cited as a major barrier to employment (Bush & Tassé, 2017) lack of stimulation and enjoyment of work tasks must be addressed for employees with disability.

7.3.1.5 Lack of use of adaptations

Two main themes emerged regarding types of training strategies utilised: employees confirmed the use of show and tell by staff and employees could not provide examples of adaptations utilised in the workplace. Adaptations can include modifications to equipment or purchases of devices such as special keyboards, signs and sound equipment (Jakovljevic & Buckley, 2011). It is probable that adaptations are such a common fixture in workplaces that neither staff nor employees recognise them. However, during staff interviews some staff mentioned their frustration at not being able to access funding to purchase necessary adaptations despite assistive technology being reported as improving vocational outcomes for those with intellectual disability (Wehmeyer et al., 2006). A further example of the lack of adaptations being utilised was Peter's (employee) comment suggesting his disability means he is unable to learn. When in fact, research indicates the type of supports provided has a greater impact on learning than employee IQ (Bellamy et al., 1975; Clarke & Hermelin, 1955; Gold, 1972; Rhodes, 1986). The use of adaptations to assist Peter in the workplace could be very beneficial given Peter's disabilities include a visual impairment. It does appear from both employee and staff comments that adaptations are not being used as often as either group would like. Lack of adaptations could be impeding employee's capacity to learn new workplace skills.

7.3.2 Employee Training Plans

Poorly written Training Plans, goals and objectives, providing minimal outcomes for people with disability is well-documented in residential settings (Adams,

Beadle-Brown, & Mansell, 2006; Herps, Buntinx, Schalock, van Breukelen, & Curfs, 2016; Shaddock & Bramston, 1991; Stancliffe et al., 2000); however, this may be one of the first studies to examine Training Plans for those with disability in an employment setting. Criticisms of Training Plans include goals and objectives not written in specific, measurable terms and objectives rarely related to goals. These major inadequacies, and others, were highlighted in this study. For example, there seemed to be widespread confusion over the difference between goals and objectives, with 67% of the 212 goals listed written incorrectly and only 50% of objectives written correctly. Often, it was not recorded in the Training Plans if the goal or objective had been achieved or if the employee was receiving ongoing training in the task. If a goal included materials/resources regarding how to implement the goal, it was more likely to be achieved, highlighting the importance of including corresponding materials/resources and having a well set out Training Plan form that staff can complete and follow easily. A well-structured form can assist staff to set goals that include objectives and resources, timeframes when training is received, the outcome of training and when the goal/s are met. Major inadequacies in the documentation of the Training Plans could prevent services from recognising and meeting the goals of those with disability (Shaddock & Bramston, 1991). The importance of recording goals appropriately is paramount as goal setting has a significant effect on employees with disability wages (Beveridge & Fabian, 2007). Further, selecting and scheduling activities, not staffing levels, appear to determine the level of interaction between staff and people with intellectual disability (Felce & Perry, 1995; Hatton et al., 1996; Windley & Chapman, 2010). Therefore, well-structured employee Training Plans need to be integrated with an overall organisation Training Plan. This would help ensure structure around the training (i.e. when it occurs, who receives it and how often). Individual and overarching organisational Training

Plans should be readily accessible via an electronic and/or paper-based system that allows staff to easily plan.

Types of training listed as provided in the Training Plans were broken into six categories: (1) certificate, (2) legislative, (3) personal development, (4) production training, (5) instruction to staff or clients, and (6) addressing behaviours of concern. Of these categories, the majority of training provided was production training (54%). However, this indicates that services are providing much more than just workplace 'production training' to employees. The wide variety of supports being offered to employees with disability could help account for some of the purported staff busyness (AFDO, 2010).

Often, Training Plans documented items that should be considered case notes rather than a goal. Training that was listed as provided did not always relate to the goals mentioned, indicating that training may be provided opportunistically in line with production needs (Kirby, 1997) rather than planned.

7.4 Conclusions

Interviews with employees with intellectual disability afford them a voice on the important topic of training in disability employment. Employee interviews sometimes offered a different perspective than the staff questionnaire and interviews. During interviews, staff indicated lack of confidence in employee competencies (see Chapter 6). However, some employees with disability that were interviewed had formal qualifications and confidence in their own abilities to complete workplace tasks. Perhaps what staff perceive as employee's lack of competence may be related to what staff are not providing. For example, staff lack of use of more structured teaching strategies, lack of job matching, and job rotation combined with limited use of

adaptations. These may well be a strong contributor to employees with disability reduced workplace productivity.

Employee Training Plans were examined in detail, and similar to previous studies, the inadequacies of goals and objectives written in Training Plans were highlighted. Further, training did not always relate to written goals, with the training provided often dictated by the demands of production and business needs. This study recommends that a Training Plan template that guides staff to include the necessary information to help ensure goals, objectives and resources/materials are recorded correctly should be implemented by individual employment services. Further, an overarching organisational Training Plan that supports staff to schedule regular training sessions also needs to be seriously considered by organisations.

Chapter 8: Results - Disability Training Offered by South Australian Registered Training Organisations and Technical and Further Education Providers

8.1 Introduction

This chapter describes the findings of qualitative interviews with Registered Training Organisations (RTOs) and Technical and Further Education (TAFE) lecturers.

Chapter 4 outlined the questionnaire responses of 48 vocational trainers (staff). More than half the staff reported either sometimes or regularly utilising 17 of the 19 strategies. However, during the interviews, training staff were unable to describe use of the strategies as outlined by literature. Hence, data from the staff questionnaire and interviews conflicted. These findings suggested that staff may be aware of the existence of the 19 strategies (declarative knowledge), but not necessarily have procedural knowledge (knowing *how* to implement the strategies).

Hence, it was important to ascertain which of the 19 strategies training staff were receiving instruction on and if the instruction was proficient. That is, did vocational trainers get the opportunity to practice each of the strategies? This is an important question as this could affect trainer's knowledge of the strategies (Nor et al., 2017).

Of the staff surveyed 35% reported having either a Certificate III or IV in Disability. Overall, 54% of participants reported receiving instruction on the 19 strategies at an RTO or TAFE. The majority of participants considered the training to be of high-quality. Therefore, TAFE/RTO lecturers were interviewed to address the following research question: Which training strategies are being taught in the Disability Certificates III and IV?

8.1.1 Data collection

8.1.1.1 TAFE/RTO lecturers

There are 251 RTOs providing training in Certificate III in Disability, 88 RTO providers for Certificate IV Australia wide (Australian Government, 2013b). South Australian statistics were not available. There is one TAFE provider of these certificates in South Australia (Talbot, 2015). Participants in this study represented organisations providing Disability Certificates III and IV in South Australia.

Participant interview, employment and teaching certificate details are outlined in Table 8.1.

Table 8.1

Data Collection Summary (Lecturers)

Tertiary staff participants	Where worked	Qualifications taught	Date	Duration (min/sec)
Luke	RTO1	Disability Certificate III	24/11/14	17:40
Pauline	RTO2	Disability Certificate III and IV and Diploma	16/12/14	22:26
Evelyn	TAFE	Disability Certificate III and IV	18/11/14	22:41

8.2 Results

The questions asked in the interviews are listed in Appendix K (TAFE/RTO interview questions). They addressed two main questions. The first question pertained to ‘teaching of strategies’ and included how many of the 19 strategies were actually taught in the Disability Certificates, and how they were taught and assessed. The second question pertained to ‘lecturers’ knowledge’. This included the lecturers’ qualifications

and their experience of the strategies. These questions and subsequent answers provided two corresponding themes (see Figure 8.1)

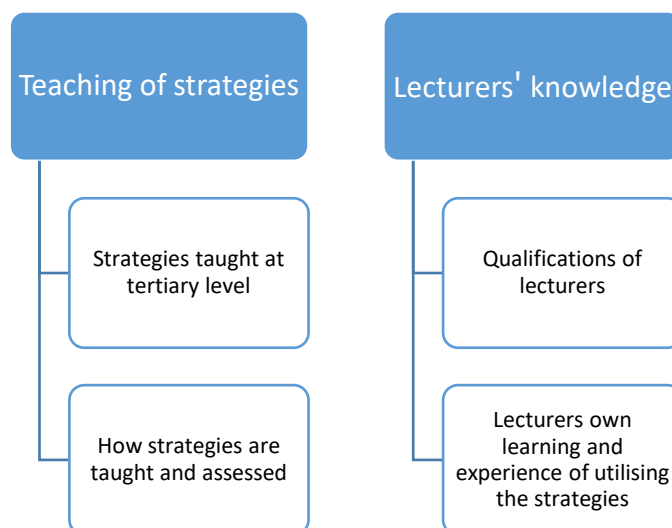


Figure 8.1. Pictorial representation of themes and subthemes from lecturer interviews.

8.2.1 Teaching of strategies

8.2.1.1 *Strategies taught at tertiary level*

In the Certificate IV of Disability Studies there are two modules that should incorporate teaching of strategies: CHCDIS001 Contribute to ongoing skills development and CHCDIS009 Facilitate ongoing skills development (Australian Government, 2013b). In the Certificate III of Disability Studies similar modules are: CHCDIS323A Contribute to skill development and maintenance and CHCICS305A Provide behaviour support in the context of individualised plans (Community Services & Health Industry Skills Council, 2010).

The main focus of the lecturer interviews was the 19 strategies that training staff were asked about in both the questionnaire and interviews. Lecturers were asked if they specifically taught the strategies in either Certificate III or IV in Disability. Participant from RTO2 reported teaching five of the 19 strategies (26%), the participant from

RTO1 reported teaching 13 of the 19 strategies (68%) and the TAFE participant reported the highest percentage: 15 of the 19 strategies (80%). An average of 11 of the 19 strategies (58%) were taught in the three TAFE/RTO involved in this study (see Table 8.2). Three strategies were not taught by any of the tertiary organisations: penalties/punishments, self-instruction and video self-modelling.

Table 8.2

Strategies Taught by Tertiary Organisation

Strategy	RTO2	RTO1	TAFE	Total number of tertiary organisations that taught the strategy
Task analysis	X	x	X	3
Prompts and cues		x	X	2
Fading		x	X	2
Reinforcement/rewards	X	x	X	3
Show and tell		x	X	2
Modelling		x	X	2
Match-to-sample			X	1
Shaping		x	X	2
Penalties/punishments	a x			0
PBS	X	x	X	3
Adaptations			X	1
Self-instruction				0
Pictures/storyboards	X	x	X	3
Data collection			X	1
ITPs		x	X	2
Video self-modelling				0
Natural supports		x	X	2
Job carving		x		1
Job matching		x	X	2

Notes: X=strategy taught; ^a reported teaching students not to use this strategy.

8.2.1.2 How strategies are taught and assessed

Each lecturer had a variety of ways to teach and assess the strategies they taught. Table 8.3 outlines the methods utilised. One RTO lecturer had a very practical ‘hands-on’ approach. For example, Pauline reported students, “...do practical demonstrations

where they're assessed on their practice. They also do sort of activities with each other. They might do social profiling on each other, those sorts of things. They do exposition in the class so there's a lot of discussion, verbalisation, exploring it through that way." The other RTO and TAFE lecturers appeared to present information on the strategies in a more theoretical way. For example, Luke reported students of the Disability Certificate were taught information by doing "activities in the workbook, they [students] do projects." Evelyn, reported her concerns at the current teaching approach "they [students] don't even get an opportunity to write an objective and I've got real concerns with this because I look at what they're coming out with and as far as writing a task analysis goes it's done in a quiz where they sequence the number of things rather than sitting down as pairs".

Both RTO lecturers commented on the importance of practicum placements for students. Pauline stated "We also do a lot of staggered opportunities, so it'll be a case of – like we do a mini placement so people go out and observe. So they're in, say, like a lunchtime area so they still have contact with people but they don't necessarily get fully involved. We're actually looking at strengthening the placement support process that we see because it can be improved to make it better." Luke elaborates on the importance of students learning while on placement "Well the staff [students], it's mainly theory and maybe ten percent observation because they apply it on the job and then when I see them informally for feedback, so 'oh that worked' and they go 'cool'. 'That didn't work' 'Oh bloody hell' but you don't use the same things with the same people."

TAFE lecturer Evelyn reported her concern that the new online delivery that TAFE was implementing was "weakening the competent training skills that an individual [student] will come out with" because "the content of what is online is more theoretical than what it is practical." Conversely, both RTO lecturers reported they had

recently implemented more opportunities for staff to have practical experience in implementing their learning. This included more time in practicum placements with organisations.

Table 8.3

Types of Teaching Methods and Assessments Utilised by Tertiary Organisation

Teaching method	RTO2	RTO1	TAFE
Theory		X	x
Case studies	x		
Role playing	x		
DVD	x		
Class discussion	x		
Placements/on-the-job	x	X	x
Online delivery			x

Note: X=teaching method utilised.

Assessments	RTO2	RTO1	TAFE
Essays	x	X	x
Projects	x	X	x
Written activities	x	X	x
Observations	x	X	

Note: X=assessment utilised.

8.2.2 Lecturers' knowledge

8.2.2.1 Qualifications of lecturers

One lecturer reported having a Masters in Education (Pauline), another had a Certificate III in Disability (Luke) and a Certificate III in Manufacturing. The third lecturer (Evelyn) had a Bachelor of Disability with Honours and was a PhD candidate.

8.2.2.2 Lecturers' own learning and experience utilising the strategies

All lecturers reported having extensive experience with working with those with a disability. Pauline reported starting her career "... originally in disability so I've worked from the bottom up. I started as a support worker years and years and years ago. I've worked in residential care, worked in schools, worked in day provision, worked in

community based provision, managed services.” Evelyn had an Honours degree in disability and stated she had learnt about the strategies “...through research and readings and things like that nature.” Also through personal experience, so I use these strategies as part of everything I do in everyday life with my own family, with my son, with students. I mean we’re shaping behaviour daily, aren’t we? Like it’s part of what everybody does but I also use them on myself as well.” Despite reporting experience working in disability Luke’s background was in “...Cert IV certificate in manufacturing but you specialised in spray painting, paint shop work, foundry work. I spent maybe two and half years with TAFE developing the courses, *which was to the right level people we’re working at* [author’s emphasis added]. I’m a gymnastics coach, baseball coach, all that sort of stuff”. As indicated in the quote, Luke felt his experience was appropriate for providing training to staff who work with those with a disability.

Overall, lecturers did not have broad practical experience utilising the strategies themselves. One participant (Evelyn) stated she had learnt the strategies mainly “in class” during her own Degree studies and utilised them on herself and her son. Luke stated he had learnt the strategies from “books”. Pauline was elusive when questioned on her use of the strategies when working in the disability field, eventually conceding that she had used “Some, not all” of the strategies.

8.3 Discussion

Self-instruction is not taught by any of the training providers; however, in the questionnaire, it was identified as one of the more prevalent strategies used by disability employment staff, particularly by Open employment staff. However, interviews identified that the staff were not familiar with its proper use. This suggests that in the

field, self-instruction may really be 'learning by oneself' or an employee with disability 'talking to themselves' and that no training is actually offered as part of the strategy.

The fact that video modelling is not taught during the Certificate in Disability Studies correlates with its lack of use in the field. This suggests staff not having the skill to utilise video modelling as the real reason for this particular strategy not being implemented, as opposed to staff explanations of 'not having necessary equipment'.

None of the TAFE/RTO lecturers reported teaching punishment/penalties, except warning students not to use them, and this may relate to why staff reported they do not use them in the questionnaire. However, during interviews with staff, it was ascertained that they regularly use penalties. Staff may have considered them a 'consequence' as opposed to a punishment or penalty, or this may be related to the fact that generally punishment has a negative connotation (Cooper, Heron, & Heward, 2007). Staff either not recognising or not admitting to the use of punishments could present problems, now or in future. It is already reported that people with disability in Australia are 'subjected to a range of practices that significantly interfere with their physical and mental integrity' (Disability Rights Now, 2013, p. 1). Lack of acknowledgement of the use of punishments could create a culture of acceptance of abuse and make addressing or highlighting abuse more difficult.

There were four strategies that all lecturers reported teaching (i.e. task analysis, reinforcement, PBS and picture/storyboards). One lecturer reported teaching strategies using a classroom-based delivery. The other two lecturers discussed disability certificate students learning in the workplace and getting feedback either from themselves or Managers. Staff reported in the questionnaire and interviews that the best training was delivered 'on-the-job', as it was practical and related to their specific circumstances. Grossman and Salas (2011) also accented the importance of realistic training

environments as one of the important factors in successful transfer of training knowledge to the workplace. Fortuitously, all lecturers identified placements during the Certificates as part of teaching methodology. This implies supervisors in the workplace overseeing job placements may be assessing and/or training students in the Disability Certificates in the strategies. The practical training offered by existing staff in work placements can assist by providing continuous modelling, monitoring and guiding (Mansell, Beadle-Brown, Whelton, Beckett, & Hutchinson, 2008). However, existing staff are already busy (AFDO, 2010) and may not necessarily have the skills themselves (Kirby, 1997; Marshall & Marks, 1981; Migliore et al., 2012; Repp, Felce, & De Kock, 1987; Test & Wood, 1997). As such, any instruction or supervision may be significantly compromised.

Two of the lecturers interviewed had university qualifications. One RTO lecturer (Pauline) identified as having a Master's in Education and discussed delivering instruction via a variety of methods (e.g. case studies and role playing), indicating a sound knowledge of appropriate teaching pedagogy. The same lecturer did not identify specific training undertaken in use of the listed training strategies and had not utilised the strategies herself. The TAFE lecturer had a Degree and Honours in Disability Studies and was a current PhD candidate, but did not have much experience in utilising the strategies herself. The third lecturer acknowledged only learning the strategies from 'books'. It is also important for effective teachers to have a rich understanding of the students they teach and experience in applied real-world settings (Chapuis, 2003). This lack of experience by lecturers of utilising the strategies compromises the instruction of the 19 training strategies discussed in this study. As stated by Howard (2006), 'We can't teach what we don't know' (p. xv).

With TAFE increasingly moving the Disability Certificate to an online format, the practical skills and 'hands-on' learning for students will be further diminished. Ford and Ford (1998) highlighted the importance of training needing to be opportunities for staff to practice new skills and receive feedback on their efforts. Without experience in use of the strategies, students will only glean what they learn in theory and will not have the depth gained by practice and experience. Additionally, the passion and incentive needed for the third part of Job Performance Theory (motivation) comes, in part, from the experience of seeing an employee with intellectual disability learn a task. If staff do not have opportunities to teach someone with a disability skills during Certificate training, then this may have a bearing on the perception of trainers in the workplace. Subsequently staff may not experience employees with disability learning tasks and staff may think that employees with intellectual disability cannot learn complex skills (Jenkins, 1998).

8.4 Conclusions

Quality of training provided in the Disability Certificates III and IV on the 19 training strategies was examined in this study. Keys to the quality of training include (1) effective lecturers with a rich applied knowledge of the subject and (2) realistic and supervised opportunities to practise skills that have been taught. These findings highlight that the lecturers interviewed did not have practical experience of most of the 19 strategies examined. Further, while all three Certificate courses offered student placements and possible opportunities to practice the strategies, it cannot be guaranteed these placements involved such practise. Nor were they necessarily supervised by staff that would be utilising, modelling and guiding the use of the strategies, which is inherent to quality training. It is acknowledged that the Disability Certificate courses contain significantly more information than just these training strategies. Therefore,

these 19 strategies are probably taught to a limited level and may not receive a significant amount of time in the curriculum. The combination of these factors could be contributing to a cycle of failure for students of the Disability Certificate course to learn the 19 training strategies.

Chapter 9: Final Discussion

9.1 Introduction

This study examined the factors that influenced the provision of on-the-job training by disability vocational trainers. The ABS reports that 61% percent of people with intellectual disability in Australia are not engaged in the labour force (ABS, 2014). Lack of appropriate training in workplaces for people with intellectual disability has been highlighted as a contributory factor to this statistic. This study gathered data from vocational trainers (staff), employees with intellectual disability and TAFE/RTO lecturers and found there were three main factors that influence the provision of on-the-job training for people with disability. These include staffs' lack of procedural knowledge of a variety of training strategies, staffs' low expectations of employees with intellectual disability (ID) and, competing business and funding demands. This chapter discusses the findings of the study in terms of factors that affect on-the-job training provided to employees with ID, highlighting possible barriers and motivators to staff implementing the strategies. This is followed by an exploration of the limitations of the study, and implications for future research, practice and policy.

Utilising a mixed methodology in this study increased the understanding and corroboration of the factors that influence the provision of on-the-job training. This provided more robust findings established by triangulation of the questionnaire and interview data and examination of the training plans. The quantitative findings revealed staff declarative knowledge of 19 training strategies, while qualitative data built on these findings and highlighted staff lack of procedural knowledge of the training strategies. Furthermore, issues that increase or reduce motivation for providing training were also discovered.

9.2 Alignment of Job Performance Theory to this Study's Findings

In order for staff to perform well Job Performance Theory states that staff will need to have:

- declarative knowledge
- procedural knowledge
- motivation.

In other words, staff need to know WHAT the existing strategies are, know HOW to correctly utilise these strategies and have the motivation to implement them (Campbell, 1999). The specific relationship between the three predictors will perhaps never be known; however, Campbell argues that performance will not occur unless there is a choice to perform (motivation), and performance cannot occur unless there is some skill. In fact, the higher the skill level the greater the tendency to choose to perform.

Findings from this study report that staff questionnaire respondents indicated they utilised 18 of the 19 strategies presented (declarative knowledge). However, during interviews most staff were only able to describe the correct implementation of four of the strategies (procedural knowledge). While staff indicated in their questionnaire that their perception of the training they provided to employees with disability was of good quality, during interviews staff were unable to adequately describe the use of strategies. Furthermore, TAFE/RTO lecturers were not necessarily providing staff with training that included practice and explanatory feedback that was conducive to gaining procedural knowledge (Bonner & Walker, 1994). It also appeared that TAFE/RTO lecturers do not have significant experience in utilising these strategies themselves. This illustrated while staff thought training was adequate, perhaps they did not have the procedural knowledge that was necessary to perform well. Furthermore, a lack of

motivation for staff to train employees may also exist because of (a) competing business and government pressures, and (b) lack of confidence in employees' abilities with staff stating that employees with intellectual disability had high support needs, and complex behavioural and psychological issues. Figure 9.2 below provides a representation of the elements of Job Performance Theory and this study's corresponding findings.

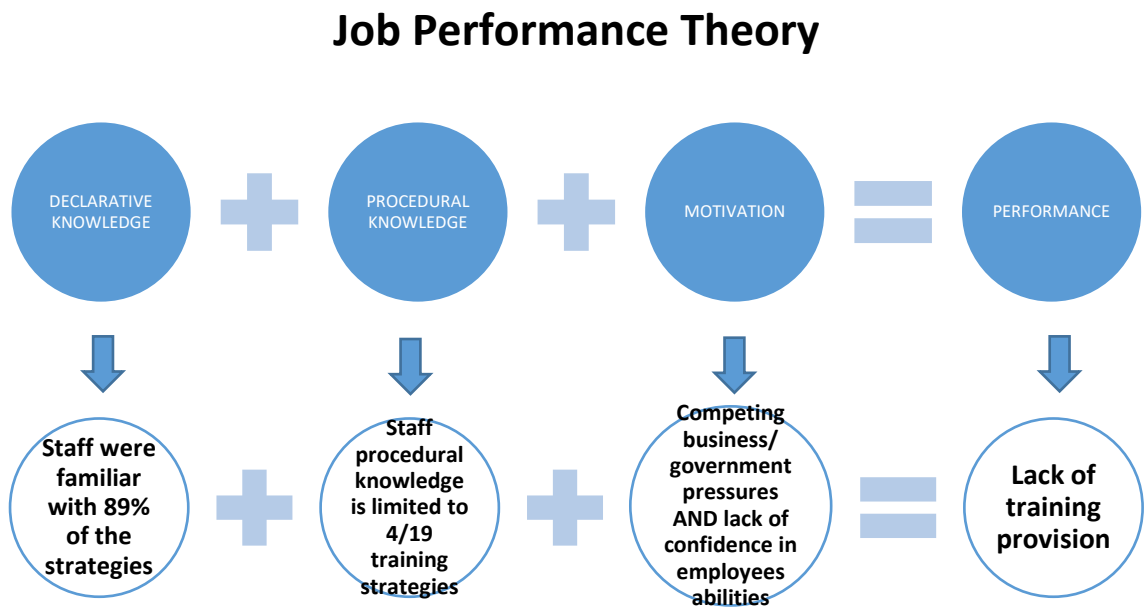


Figure 9.2. Alignment of Job Performance Theory to this study's findings.

9.3 Vocational Trainers use of training strategies: lack of correlation between declarative and procedural knowledge

During interviews each participant's understanding of a strategy was firstly checked for matching with the current study's definition. Secondly vocational training staff were asked to provide examples of when they used the training strategy. As the participant described use of the strategy, details of the steps staff used to implement the strategy were revealed and/or the researcher requested this information. Overall vocational staff could only describe the use of four strategies in accordance with literature: show and tell, match-to-sample, reinforcement and natural supports.

However, use of these strategies may not be ideal for a variety of reasons and these are explained in this Chapter. These findings provide an account of the provision of workplace training for those with intellectual disability.

9.3.1.1 Show and tell

Show and tell involves: ‘showing’ (the trainer demonstrates the task to be learnt) and ‘telling’ (i.e. sharing information or knowledge). This study’s findings indicate that ‘show and tell’ was widely utilised. That is, data from the staff questionnaire and, both staff and employee interviews reported show and tell was the method of training most commonly utilised. This supports Molnar and Watts’ (2000) findings in the general workforce; they state trainers “train the only way they know how – show and do” (p. 4). The show and tell method of training is not necessarily a poor way of training. Most people learn by imitation and visual, hands-on experience (Rae, 1995; Sibeman & Biech, 2015). However, training employed should be the method that promotes the desired performance level in a timely manner and minimises the amount of retraining needed because this results in increased performance quality and productivity and reduces costs of training (Molnar & Watts, 2000). To provide an employee with the maximum chance of learning workplace skills, it is imperative that staff utilise the strategy or strategies best suited to both the employee’s learning style and the task being taught (Hurtado, Jones & Burniston, 2014; Lysaght, Ouellette-Kuntz & Cheng-Jung, 2012; Oldreive & Waight, 2013). Therefore, if show and tell was exclusively and/or extensively utilised as the preferred method of training, this may be limiting new skills learnt in the workplace for those employees with intellectual disability.

9.3.1.2 Match-to-sample

Studies have shown that match-to-sample could give strong results in learning for those with intellectual disability with “minimal training investment” (Rehfeldt,

2011, p. 109). Match-to-sample in this study was described as: *Using a correct example of a completed item as an example of how the task should be completed.* The correct example can be provided in several formats, for example, actual items, pictures, or photos of items in hardcopy or on automated devices such as laptops, tablets etc. During interviews, staff reported providing samples of finished products (actual items) with the expectation that the employee would complete the task until the product they were working on looked the same. Staff did not report utilising automated devices and/or pictures/photos. Staff reported during interviews using pictures/storyboards however the pictures were used for notices and communication, not on-the-job training. While match-to-sample was utilised, it may not have been used to its full potential (i.e. pictures and devices were not being utilised to support the use of match-to-sample). Additionally, this training strategy is not unlike show and tell, in that, it is intuitive (Molnar & Watts, 2000) (i.e. taking limited skill and effort to execute).

9.3.1.3 Reinforcement/Rewards

In this study rewards were described as: *Providing something the employee with a disability enjoys other than their usual pay (e.g. praise).* The use of rewards or reinforcement has been reported in the literature to increase targeted behaviours and have instructional outcomes for those with intellectual disability (Beare, Severson, & Brandt, 2004). The use of rewards was reported by 90% of questionnaire respondents in this current study as being used ‘sometimes’ or ‘regularly’ and during interviews staff reported using both social (verbal) praise and activity (functions) rewards. However, other forms of rewards were not discussed by staff. It is possible that other forms of rewards may not be appropriate in a workplace. For example, use of a physical reward in the form of a hug and consumables which could not be eaten during working times. Staff also made no mention of using reinforcement to increase a target behaviour. One

reason staff may be hampered in the effective use of reinforcement is high employee to staff ratios. Staff reported overseeing a mean of 61 employees per staff member and this may make it difficult for staff to find time, to provide 1:1 support to implement reinforcement schedules effectively (Beare et al., 2004).

9.3.1.4 Natural supports

The natural supports strategy was reported by the majority of questionnaire respondents as being used 'sometimes' or 'regularly.' Natural support is described in this study as: *Training co-workers in the employee's workplace to provide support and training to the person with a disability.* Despite the reported confusion about the concept of natural supports (Test & Wood, 1996) this strategy is popular (Wehman & Bricout, 1998). Both ADE and Open employment staff in this study reported utilising this strategy.

One of the confusions about natural supports has been the variety of people who have been utilised to provide such supports (i.e. mentors, parent advocates) (Cimera, 2001; Mank et al., 1999); and in this study ADEs staff stated they utilised employees with disability to train other employees with disability. There is no doubt that people with intellectual disability are capable of providing training to others (Martin, Cornick, Hughes, Mullen, & Ducharme, 1984). The provision of training could be described as a higher order skill, and if people with intellectual disability are in fact providing training and supports to co-workers then career progression could be reasonably expected for those with intellectual disability. The ability to be utilised as a natural support or to train others in the workplace surely indicates employees with disability are capable of higher order tasks and responsibility, which should be leading to supervisory or leading hand positions, and this is generally not the case (Wacker & Berg, 1984). In fact, in the current study employees with intellectual disability who were interviewed often had

obtained certificate qualifications that were not currently being utilised in their workplaces. This may indicate a lack of job match. That is, the skills of employees with disabilities and the jobs they are obtaining are not matched (Jones & Sloane, 2010). This leads to employees' capabilities and expertise being underutilised (Hall et al., 2014). Another explanation for employees' certificate qualifications not being utilised in the workplace is the 'Australian Apprenticeships Incentives Programme.' This programme provides financial incentives to employers (including ADEs) to ensure an employee successfully completes a Certificate II, III, IV or Diploma (business.gov.au). Due to inadequate regulation this programme has been reportedly exploited (Atkinson & Stanwick, 2016). It is possible that ADE's are receiving money for an employee's successful attainment of certificates but are not necessarily interested in utilising the employee's new skills.

This study's findings raised questions as to the effectiveness of the provision of natural supports in Open employment. Specifically, because Open employment staff inferred that natural supports were utilised to ensure vocational trainers could exit the workplace more quickly. Indeed, the earlier vocational trainers can exit the workplace the better it is for both social acceptance and integration of the employee, because use of co-workers to support a person with a disability in their workplace is more normalised and less stigmatising (Test & Wood, 1996). A further benefit of utilising natural supports is a decrease in vocational staff time, therefore decreasing the cost of supporting an employee (Fabian & Luecking, 1991). Hence, Open employment staff may be eager to remove their support for an employee with disability in order to decrease expenses and move onto supporting another employee in their case load. However, ongoing support provided to both the employee and the co-worker is conducive to positive job outcomes (de Urries et al., 2005). If Open employment staff

withdraw supports too quickly from the workplace it can result in both the employee with disability and co-worker not receiving necessary training. This puts at risk the attainment of positive outcomes, such as acquisition, fluency, maintenance, generalisation and variability of employee work skills. A suitable balance of time for vocational trainers to remain in the workplace is recommended. During this study's questionnaire staff respondents (43%) believed they spent the right amount of time on training. However, their perception may be tainted by their desire to save money and provide supports to other employees with disability in their large case load (as reported by respondents). Furthermore, not having the time to identify co-workers with the skills necessary to implement support strategies, especially to those with severe intellectual disability may lead to those with higher support needs being further excluded from Open employment (de Urries et al., 2005; West, Kregel, Hernandez & Hock, 1997).

9.3.1.5 Other strategies

One strategy (video modelling) was reported by staff in both the questionnaires and during interviews as not utilised despite this strategy's documented success in teaching a variety of skills (Buggey & Ogle, 2012; Cihak and Schrader, 2008). However, given that the TAFE/RTO lecturers did not report teaching video modelling in the disability certificates the use of this strategy is likely to be reduced. Staff denied using penalty/punishments but invariably gave examples of use of this strategy, not considering the examples provided as penalties or punishments. The other 13 strategies discussed in this study were reported as utilised in the questionnaire, but staff demonstrated little understanding of correct steps associated with the strategies during interviews.

9.3.1.6 Staff procedural knowledge

Of the 19 strategies listed most questionnaire respondents reported utilising the majority of the strategies either sometimes or regularly; however, during interviews staff reported using the strategies less frequently and strategies' processes were described inaccurately. One explanation for the questionnaire data being more positive is that self-reported data is susceptible to 'social desirability responding', for example, respondents will sometimes answer positively because they believe that is the right way to answer; in other words respondents will "fake good" (Chan, 2009, p. 323). Since questionnaire responses were not further probed and tested with respondents as was done during interviews, questionnaire data may have been more susceptible to this phenomenon. However, Chan (2009) refutes many of the myths around the inaccuracy of self-reported data and states that evidence does not prove that self-reported data is fundamentally deficient. Therefore, one of the most plausible reasons, as to the difference in staff reporting, was that staff do in fact know the strategies listed but may have only 'declarative' knowledge (as the questionnaire reveals). However, during interviews staff revealed that they were unaware of how to utilise the strategies appropriately, indicating a lack of 'procedural' knowledge as described by Job Performance Theory (Campbell et al., 1993). Due to staff's own education in these strategies, staff procedural knowledge may well be limited. Interviews with TAFE/RTO lecturers teaching the Disability Certificates III and IV revealed that some of the 19 strategies examined in this study were not being taught by the lecturers interviewed. This current study revealed that the lecturers' lack of experience utilising the strategies and students' lack of opportunity to practise utilising the strategies could be contributing negatively to students' ability to utilise them.

9.3.1.7 Summary

It was highlighted that a very limited number of strategies defined in this study were utilised by staff correctly, given the descriptions staff provided during interviews. During interviews participants could only describe the use of four strategies in accordance with literature (show and tell, match-to-sample, reinforcement and natural supports). This casts uncertainty over the use of 15 of the 19 strategies. These 15 strategies were either described as not being utilised, or consistently not described in accordance with the literature by interview participants. Furthermore, there is uncertainty as to whether staff were utilising three of the four strategies (match-to-sample, reinforcement and natural supports) to their full potential. For example, match-to-sample was used predominantly for noticeboards not OTJ training; only limited types of rewards were being utilised and reinforcement was not reportedly utilised to increase desired behaviours and; staff may not have the ability to provide enough time to implement natural supports effectively. According to the findings of this study this means show and tell may be the only training strategy that vocational trainers could describe correctly and therefore have the potential to be utilising fully. These findings reflect a study conducted with regular workplace trainers. Those findings indicated that, 'show and tell' was the strategy most likely to be used for OTJ training (Molnar & Watts, 2000). This current study's findings question the variety of training strategies being used to train employees with intellectual disability.

9.4 Training strategies being taught in the Disability Certificates III and IV

As previously mentioned, findings indicated vocational trainers revealed procedural knowledge of four of the 19 strategies discussed in this study. Hence during

interviews lecturers were asked what strategies were taught in both the Certificate III and IV in Disability. The three lecturers reported teaching on average only 11 (58%) of the 19 strategies. Those strategies were reported as being taught via theoretical explanations as opposed to students having practical experience. Knowledge and experience of utilising the strategies may have been further compromised by lecturers reporting not having experience in implementing the strategies themselves. This may lead to staff being unaware of how to implement training strategies (procedural knowledge). Furthermore, three strategies were not taught by any of the tertiary organisations: penalties/punishments, self-instruction and video modelling. Research in self-instruction and video modelling suggests these strategies can be used to train those with intellectual disability skills, thus it is important to include them in the Disability Certificates. Self-instruction has been shown to be effective for changing behaviours of those with intellectual disability (Mithaug, Mithaug, Agran, Martin, & Wehmeyer, 2007). Video modelling has been proven to be a useful technique to teach a variety of skills and behaviours across disability types and ages (Buggey & Ogle, 2012). Video modelling videos have the advantage of being able to be developed using a smart phone or iPad, technology that most people own, and the learner can watch them without impacting on staff time. Both staff and lecturers reported the use of penalties and punishments as an inappropriate strategy to be utilising, possibly due to the historic use of restrictive practices. However, they can be effective tools when dealing with employees with behaviours of concern with which staff in this study reported they were having difficulty. For example, punishments can be highly effective when dealing with hazardous behaviours of concern (Lerman & Vorndran, 2002). If PBS and appropriate penalties are not utilised by vocational trainers this could further exclude those with severe behavioural issues from employment. Additionally, by staff not being aware of

penalties and punishments it can lead to staff inadvertently utilising punishments. Vocational trainers interviewed in this current study denied utilising punishments, instead offering examples of punishments but labelling the punishments as ‘consequences’ or ‘disciplinary action’; staff providing punishments but denying it can create a potential problem. For example, Disability Rights Now (2013) reports that people with disability are being subjected to damaging practices. Staff need to be aware of appropriate and inappropriate use of penalties and punishments.

The findings of this current study suggest staff are unfamiliar with many training strategies that would be of use when training those with intellectual disability. As early as 1990 there were calls to explore vocational staff training needs (Parmenter, 1990) and a further recommendation that staff required training on issues and strategies for supporting the more severely disabled (Wheeler, 1990). Currently there are relatively low numbers of people with intellectual disability working in Open employment. For example, 6.9% of employees with intellectual disability are engaged in Open employment services compared to 21.3% working in ADEs (Meltzer et al., 2016). Nevertheless staff able to provide quality training to those with disability becomes increasingly important as more people with disabilities access employment (PriceWaterhouseCoopers, 2009). Staff not only need to deliver the strategies proficiently but also match the correct strategy with the appropriate task and the individual learning style of the employee with disability. Concerns about how staff should learn these skills has continued for many years (Kirby, 1997). Some argue that techniques such as person-centred support skills and Systematic Instruction can be learnt without the need for academic qualification (Byrnes & Lawn, 2013; Gold, 1973). However, others have argued for formally trained staff with graduate degrees (Brown, 1988), while others had concerns about staff developing skills ad hoc (Windley &

Chapman, 2010). Currently Certificate IV in Disability and Certificate IV in Employment Services are not compulsory requirements for working in Open employment (Byrnes & Lawn, 2013; National Disability Services [NDS], 2018); but even if they were it may be unlikely that staff would learn how to successfully utilise the 19 strategies discussed in this current study. This is due to TAFE/RTO not teaching some of the strategies and not providing opportunity for students of the Disability Certificates to have supervised practice and receive feedback from mentors, which is conducive to worker competence (Pachana et al., 2011; van Oorsouw et al., 2009).

The necessity for staff training to match staff needs is vital (Byrnes & Lawn, 2013, Kirby, 1997). Staff often provide a variety of supports to employees with disability (e.g. addressing challenging behaviour, meeting business needs, job placement and OTJ training) and this can create role confusion (Wheeler, 1990). While a variety of tertiary training is available in Australia, there is limited training offered to staff working with individuals with complex support needs (Dowse et al., 2016). For example, those with severe and profound intellectual disabilities (level 3 & 4) who were the focus of this current study. Therefore, there is a need for training courses that meet the roles of staff (Kirby, 1997). A training course that focuses on teaching staff 'training strategies' has been recommended (Beyer et al., 2002; Kirby, 1997), and to include in particular some of the 19 training strategies cited in this study. A specific Certificate III or IV or Diploma in Training should be developed. The Certificate should provide practical training for disability staff in strategies that promote workplace skill acquisition, fluency, generalisation and maintenance for those with intellectual disability and complex needs.

9.5 Barriers to training provision

9.5.1.1 Staff (vocational trainers) perceptions of barriers

In this study staff reported a burden of administrative duties and having a high number of employees to oversee: a mean of 61 employees per staff member. On the other hand, staff felt they spent the right amount of time on training. Staff perception of the amount of time they should spend on training may be influenced by (1) availability of time given number of employees they are required to supervise (2) amount of administrative duties and, (3) their understanding of the steps involved in training strategies. With large numbers of employees to supervise and disproportionate levels of administration vocational trainers may see training as a relatively small part of their role. Vocational trainers displayed a rudimentary understanding of training strategies that did not include explanations of the detail, steps and corresponding time that would be required to implement the training strategies. Together these points may explain why staff felt they were spending enough time on training.

The item staff considered to assist most with providing more OTJ training was 'more staff.' However, if this was made available it may not equate to increased training as studies in disability accommodation report (Felce, 1998; Hatton et al., 1996; Seys & Duker, 1988). What has been found to increase training provision is an emphasis on the participation of people with disabilities in tasks and a decrease in staff completing tasks (Felce, 1998). Additionally, staff should not judge people with disabilities but focus on providing supports to those who lack skills (Felce, 1998). Therefore, scheduling activities rather than increasing staff/client ratios can lead to staff increasing the provision of training (Hatton et al., 1996). Scheduling staff to train employees with intellectual disability in workplace tasks to meet the employee's workplace goals is imperative.

This and other factors may impact the provision of OTJ training. For example, vocational trainers' own motivation will impact on their interest to engage in training provided and transfer what they learn (Punia & Kant, 2013). Staff in this current study indicated that the employees they worked with had high support needs and were not capable of learning some of the work tasks. Staff need to believe that employees with intellectual disability can learn new skills, otherwise staff interest in learning training strategies and providing training will be diminished. Vocational trainers in this study complained about supervisors not being supportive and not understanding the pressures of the vocational training role. Staff require quality supervision that includes monitoring staff provision of training and data. These factors are known to positively impact staff provision of training to those with disability (Parsons & Reid, 1995; Windley & Chapman, 2010). A further factor to impact on the provision of OTJ training is staff's own education in these strategies. For staff to receive quality training themselves the training should be (a) provided by lecturers that have experience and applied knowledge in the skills being taught, and (b) include opportunities to practice the skills, receive feedback during practice and repeat these steps to mastery (Parsons et al., 2012). However, this current study found that these key elements are missing from training being provided during the Disability Certificates III and IV in those TAFE/RTO providers included in this study. Lecturers of the Disability Certificates in this study did not have extensive experience in delivering the training strategies themselves therefore hampering their ability to impart knowledge and provide valuable feedback to students. If staff are not being provided with quality training that incorporates the aforementioned steps, they may not be aware of correct implementation of training strategies. Thus, staff cannot then be expected to both provide quality training and be insightful regarding the quality of training output.

Staff questionnaire respondents reported training work experience or new employees more than long-term employees. Other studies have also highlighted this issue; for example, Bray (2003) states that staff assistance was central to obtaining a job, but staff were remiss in continuing support that could improve work performance. Longitudinal observation of clients within a supported employment program revealed there was a trend for reduced contact between the client and their trainer over time (Anderson, 1999; Botuck et al., 1992). Those in jobs for a five-year period or more are usually only provided with disability employment staff support when the worker or employer requests it (Beyer & Robinson, 2009). The lack of training for existing employees may be contributing to lack of progression and an increase in wages for employees.

In the questionnaire staff reported spending a lot of time providing training to employees on packaging and non-production tasks (e.g. such as social skills training and behaviour support). This was also confirmed in the employee training records. Knowledge of training strategies and supports, such as VM and PBS, can assist with addressing social skills and behaviours of concern (Anderson & De Pry, 2015; Buggey & Ogle, 2012). Staff in this current study did not report a procedural knowledge of either of these strategies. Without an ability to address employees' deficits in social skills and/or behavioural issues efficiently and effectively, staff will continue to spend time addressing these issues as opposed to OTJ production training. OTJ production skills are important because new production skills could lead to job rotation and fluency of skills, which in turn could lead to higher duties and increased pay (Campion, Cheraskin & Stevens, 1994).

Vocational trainers in this current study reported working with employees with a mild disability more than those employees with moderate/serve/profound disability.

Respondents also reported using self-instruction and job matching more with those with a mild disability. Self-instruction was reported by staff as ‘employees talking to themselves’ and job matching was reported to be ‘asking’ what jobs/tasks employees would like to do as opposed to providing a job match. Descriptions of the use of both strategies did not include the numerous steps that are recommended in literature. This indicated staff were not providing as much training as should be connected to these strategies. Staff reported working with minimal numbers of those employees with severe to profound disability. This was further demonstrated by vocational trainers’ absence of use of most strategies apart from show and tell. The lack of use of a variety of training strategies and staff reports of working with limited numbers of employees with severe disability indicates perhaps there is less demand from employers for staff to possess training expertise to support those employees with higher support needs. Furthermore, it has been previously reported that disability employment services are not accepting those with severe disabilities; they are accessing day recreational programs instead (Kirby, 1997).

9.5.1.2 Employees with disability perceptions to barriers

Employees reported enjoying training and indicated they wanted to learn new tasks they were not currently receiving training on, for example, cooking/piping (cake decorating), making coffees, packaging, speaking engagements, welding, web design and dismantling. This lack of training on tasks has been reported in other Australian studies; for example, DEEWR (2012b) noted that less than half of employees with disabilities who were receiving training support from Open employment agencies were happy with that aspect of service provision. Similar results were recorded by the Dynamics of Australian Income Support and Employment Services (DAISES) longitudinal survey of participants in Open employment (cited in DEEWR, 2012b). This

survey estimated that 1 in 4 employees received too little assistance and found that training and skills development as an area of frustration.

The current study also highlighted the lack of finding suitable jobs or job matching for employees with intellectual disability. Employees interviewed in this study had a variety of tertiary qualifications. However, the associated skill set was not reported as being utilised in their current positions. Despite employees' qualifications, their confidence in their own abilities and their desire to learn new skills, staff reported having a lack of belief in employees' abilities. This was specified during vocational trainers' interviews. Vocational trainers lack of belief in employees' abilities is likely to impact the provision of training for employees (Kraus, 1995).

This then leads to a cycle of staff not providing training, employees in turn not learning and not being able to prove to staff their competence which then loops back to staff not providing training. Staff lack of belief in the abilities of people with disability has been commented on previously (Australian Human Rights Commission, n.d.; Gold, 1973; Kirby, 1997; Parmenter, 1976; Snyder, Carmichael, Blackwell, Cleveland, & Thornton, 2010), and is discussed further in the section 'Staff's low expectations of employees with intellectual disability' below.

9.5.1.3 Barriers to training provision highlighted in Training Plans

All three sources of data (interviews with vocational trainers and employees and ITP data) referenced production demands dictating the types of jobs and training that employees were involved in. Jobs that required production be completed within tight deadlines were considered by vocational trainers as a hindrance to training provision. This finding has been highlighted previously (Kirby, 1997) and indicates that production as opposed to the need for employee skill development dictated the type of training an employee receives. Furthermore, the types of tasks that were reported in

ITPs and observed by the researcher being completed were often simple tasks involving only one or two steps. Correspondingly vocational trainers mentioned using job carving to simplify the tasks they taught employees with disability. During interviews staff revealed that some jobs were thought to be too difficult or complex for those with disability. These findings suggest only simple jobs/tasks may be being offered to those with disability. This creates a 'glass ceiling' (Business Dictionary, 2019) whereby opportunities are not afforded those with disability to receive training and potentially learn new skills and therefore staff's belief of employee inability is maintained.

ITP data in this study revealed 54% of training was production training while other training included training for legislation requirements, personal development and behaviours of concern. This finding suggests that ADEs are providing much more than just workplace production training support to employees. Government funding needs to recognise and provide provision for the cost of disability employment staff providing these supports. Furthermore, a focus on person centred planning can assist with encouraging an increase in training (Burke & Hutchins, 2008; Locke, 1968; NDIS Rights, 2018). If employees' personal issues are not addressed, it can make it difficult for employees to concentrate on workplace tasks and therefore staff attention is focused on addressing employees' personal issues rather than on production training. Concerns for production training provision is further amplified by a study in Open employment (Anderson, 1999). It was reported on average employees with intellectual disability were provided with 1.1 hours a week of job support (which included OTJ training and a variety of other supports). Both Anderson's findings and this study's findings indicate that employees with intellectual disability may be receiving limited time on OTJ production training.

9.5.1.4 Summary

Vocational trainers reported providing enough training time to employees with disability. Conversely employees with disability requested training on new workplace skills. Barriers to increased training provision may include staff having a burden of administrative duties and large numbers of employees to supervise who required intensive behavioural supports. Furthermore, training may be provided to predominantly new employees; only when production flow allows it and; if staff consider the task uncomplicated enough for an employee with disability to complete.

9.6 Summary of Factors Influencing the Provision of On-The-Job Training

9.6.1 Business and government pressures

This current study revealed that meeting budgets and staying in business was a main priority of Management. This meant Management was highly focused on meeting compliance with government funding. Therefore, vocational trainers concentrated on providing training to employees with disabilities that met funding requirements (such as training on legislative requirements, i.e. Disability Standards and Work Health and Safety) as opposed to the training that employees with disabilities were requesting. During interviews ADE staff were candid about their concerns of maintaining a commercially viable business and balancing the needs of those employees with disability. Accreditation processes and funding contract regulations may aim to improve services; however, they can also weaken services provided (Kirby, 1997). Staff may prioritise meeting accreditation guidelines (Kirby, 1997) and if these guidelines do not align with training or service provision for employees with disability then individual outcomes may not be met. Furthermore, funding based on the number of employees

encourages services to take on more employees to lower average costs, and this can also compromise the quality of service (Kirby, 1997) because staff then have large numbers of employees to supervise.

A strong business focus may mean that production tasks and demands dictate if and when training for employees may be available. It is recognised “that a tension will always exist between the needs and learning goals of the individual and those of the enterprise” (Harris, Simons, & Bone, 2000, p. 9). Staff interviewed for this current study revealed training may not be provided when jobs have deadlines, as meeting a customer’s timeframe is prioritised over training. With pressure on management to ensure optimum production and quality, vocational trainers in this study reported this often resulted in a reluctance to release employees for training. Unplanned, unscheduled and spontaneous training that appears to be the norm in ADEs may not of course necessarily equate to ineffective training (Vallence, 1997). However, Galloway and Lecours (1978) some 40 years ago commented that service systems are not accustomed to providing training on a routine basis. This appears to be still the case today in the agencies involved in this study. Therefore, the fear is that without times being scheduled for training it will not happen (Hatton et al., 1996).

ADEs compete against themselves and the overseas market for simple packaging tasks. For ADEs to survive financially, producing goods and services that require variation of skills and have longevity in a business sense is paramount. Furthermore, the kind and amount of work in ADEs impacts the provision of training (Greenleigh Associates Inc, 1975). Staff interviewed for this current study mentioned that training was built around production needs: that urgent jobs meant there was not time to provide training. Furthermore, short runs of jobs are not conducive to training opportunities but may be taken up because of profitability. ADE management should be

mindful of the business versus production dichotomy when choosing what work they bid for. Staff mentioned that urgent or short-run jobs had a negative impact on training. Therefore, it appears that today's ADE management would do well to note Gold's (1973) suggestions for job selection in a sheltered employment context:

- Work should require skills that need to be taught rather than skills which employees already have.
- There must be sufficient lead time to set up production and training to allow for both employee and production considerations.
- The work should be labour intensive (i.e. not automated).
- The work should have enough different operations to allow for a variety of job stations, with the potential for a range of different operations.
- Work should be profitable for the service. Bidding should take into consideration the same factors that are considered by any subcontractor.

These suggestions could help overcome some of the training issues reported by employees with disabilities and vocational trainers in this current study i.e. lack of job rotation, short runs or tight deadlines not compatible with training provision.

Staff interviewed in this study principally approved of accreditation for disability employment services, acknowledging that accountability for taxpayer funds is important. However, they were critical of what they saw as the excessive administration burden these bring, reporting that half of their time was spent on administration. Staff complained about the time taken to collect evidence to support funding requirements. Congruently, NESAs (2014) reports that frontline staff are spending around half of their time on administration and this is increasing. Administrative burdens have been acknowledged and gains attempted by government. Despite this fact 79% of staff

believed (when surveyed in 2009 and 2010) that the administrative load had increased (DEEWR, 2012).

Additional pressure staff reported which affected disability employment services were changes to the parameters of the disability support pension. Staff felt there had been an increase in those with mental health issues accessing disability employment services. During interviews staff reported being overwhelmed and ill-equipped to deal with behavioural and mental health issues of employees with disability, and trainers were unable to describe adequately how to implement PBS. An increase in people with behavioural and/or mental health issues when staff do not possess the skills to support this group of employees is of concern, particularly as staff felt they did not have the support to deal with the associated issues. Vocational trainers acknowledged the impact mental health has on employees, stating some employees attempt suicide and mental health issues can impact an employee's ability to remain employed. Disability employment services were designed to assist people with multiple and complex barriers to employment (NESA, 2012). However, it needs to be recognised that staff are expected to work directly with people whose primary barrier to employment is disability. While mental ill health may exist alongside disability, staff in this current study reported not feeling prepared to cope with complex needs of participants with severe mental illness. Other studies have recognised Australian disability employment staff concerns dealing with mental health issues which can be further compounded by drugs and alcohol, gambling, homelessness and relationship issues NESA (2014) and DEEWR (2012).

9.6.2 Staff lack of skill in implementing training

During interviews with TAFE/RTO lecturers, it was ascertained that some of the strategies highlighted in this research are not being taught in the Disability Certificate

studies in the TAFE/RTOs considered in this study. Furthermore, those strategies being taught have been reported to be, for the most part, taught via theoretical explanations as opposed to student practice. Knowledge and experience of utilising the strategies may be further compromised by lecturers reporting not having experience in implementing the strategies themselves. This may lead to inadequate staff knowledge of the training strategies, as reported in previous studies (Ahlstedt, 2000; Annison et al., 1993; Grey et al., 2007). Furthermore, Annison and colleagues (1993) report that graduates of Certificates of Community Services were not meeting industry standards, with curriculum and skills training offered at TAFE being a long-term issue.

Most recently, the findings of this current study again question the training being provided in the Disability Certificates and supports Van Houten et al's (1988) findings that there is a considerable difference between research knowledge and practice in the field. These findings lend further support to the skill deficits in staff working with those with an intellectual disability in the employment sector.

9.6.3 Staff low expectations of employees with intellectual disability

During interviews for this current study, vocational trainers reported caring for employees' safety and many trainers stated they gained satisfaction from seeing employees 'happy.' The employees who requested support during their interviews chose vocational trainers as their interview support person. During these interviews the researcher witnessed an obvious rapport including playful banter and smiles shared between vocational trainers and employees with disabilities. This genuine concern and rapport should not be undervalued. Given trainers with a genuine interest in employees' wellbeing contribute to employees' self-esteem, confidence, increased motivation and can encourage learning (Harris et al., 2000). However, this care and concern can have both favourable and adverse consequences. Residential support workers admitted to

being protective of the people they support, trying to ensure they remain safe; this overprotection of people with disability leading to reduced community inclusion (Golding & Rose, 2015). In disability employment services overprotective behaviours by staff have resulted in people with disabilities not attaining skills (Kocman & Weber, 2018). Certainly, staff in this current study reported safety as a primary concern for employees with disabilities considering some tasks too dangerous for employees to complete. This focus on safety is in alignment with mainstream workplaces where there has been an increased focus on work health and safety since 2008 (Safe Work Australia, 2019). However, in disability services a strong focus on safety may limit how many tasks people with disability can undertake. This may lead to employees with disability not allowed an opportunity to learn new tasks or appropriate safety skills. This may be another contributing factor influencing the provision of OTJ training by vocational trainers.

Historically, people with intellectual disability (ID) have experienced intolerance and negative attitudes, which have blocked their integration in society and negatively impacted their participation in society including employment (Asch, 1984; Australian Human Rights Commission, 2017; Carter & Hughes, 2006; Golding & Rose, 2015; Snyder et al., 2010). While staff working in the disability field reportedly have better attitudes toward people with disability than the general population (Golding & Rose, 2015), staff attitudes can still be a barrier to people with disability accomplishing achievements. In this current study interviews revealed staff considered employees to have high support needs, being capable of only menial tasks and having challenging behavioural and psychological issues. Staff comments were sometimes very derogatory and included comments such as: employees with disability were 'lazy', 'did nothing', and were 'not interested in working.' Staff in this study did not base their assessment of

employees with disability abilities on a formal assessment instead choosing not to train until the employee displayed aptitude. Staff indicated they would only train an employee if they had previously demonstrated their capabilities by completing workplace tasks. Many of the employees with ID interviewed in this study had tertiary qualifications but this did not seem to influence the amount of training provided, nor their involvement in type of tasks.

Attitudes about disability will invariably influence reasoning, problem solving and actions (Kulnik & Nikoletou, 2014; Kraus, 1995). In fact, staff only consider it their role to help if they judge the person with disability has capacity to learn (Phillips, 2015). Therefore, staff that are sceptical about the likelihood of successful training outcomes are less likely to even attempt to implement training (Venema, Otten, & Vlaskamp, 2015). Staff attitude about lack of ability of employees with disability may be contributing to a cycle of no training and provision of only menial tasks that require no training (Australian Human Rights Commission, n.d.; Kirby, 1997). In fact, staff have been accused of lacking adaptability and there have been previous calls for professionals to radically change their thinking (Parmenter, 1976). Staff with positive attitudes toward employees' ability to learn is imperative if they are to attempt to provide training (Mansell et al., 2008; Phillips, 2015; Venema et al., 2015). Therefore, if staff were to take responsibility for whether employees learn, then there may be a change in staff motivation to train (Tate, 2008).

In summary, factors that influence the provision of OTJ training by vocational trainers in this current study include the following (see Figure 9.1):

(1) Issues that are dictated by business pressures and government contract and accreditation processes. Government contracts for Open employment that require job seekers with disability to be placed in employment within short time frames means staff

cannot always act in the best interests of people with disability by providing them with the best job match (Australian Human Rights Commission, 2016). An example of funding regulations that hamper training is Open employment payments. Open employment services are paid when employees with disabilities stay in a job for 13 and 26 weeks and this acts as a disincentive to deliver ongoing supports (Smith, 2018). As discussed by this current study's participants, if disability services are focused on meeting business customer needs and/or problematic funding requirements this may not promote a culture that emphasises support training as a core responsibility. Furthermore, if ADEs do not acquire appropriate contracts that provide complex work, then the necessity to train employees is minimalised.

(2) Staff may be reluctant to provide training utilising any strategy other than show and tell because they do not have the necessary procedural knowledge of the other 18 strategies discussed in the study. This is likely due to poor information and practice of the strategies during the Certificates in Disability studies.

(3) While staff report a strong care and concern for those employees with intellectual disability, they conveyed little belief in their capabilities. Positive staff attitudes to the learning potential of employees with ID can contribute to staff's motivation to provide training. It is acknowledged that variables other than attitude are known to impact staff provision of supports, and these include: frequent supervision and training and support for staff (Mansell et al., 2008); if an agency, supervisor or state require it (Vassos & Carroll, 2016) and a workplace culture that values training and promotes continual development of skills (Ridoutt et al., 2002). These points reinforce the importance of management and government being part of the solution to a lack of training provision to employees with disability.

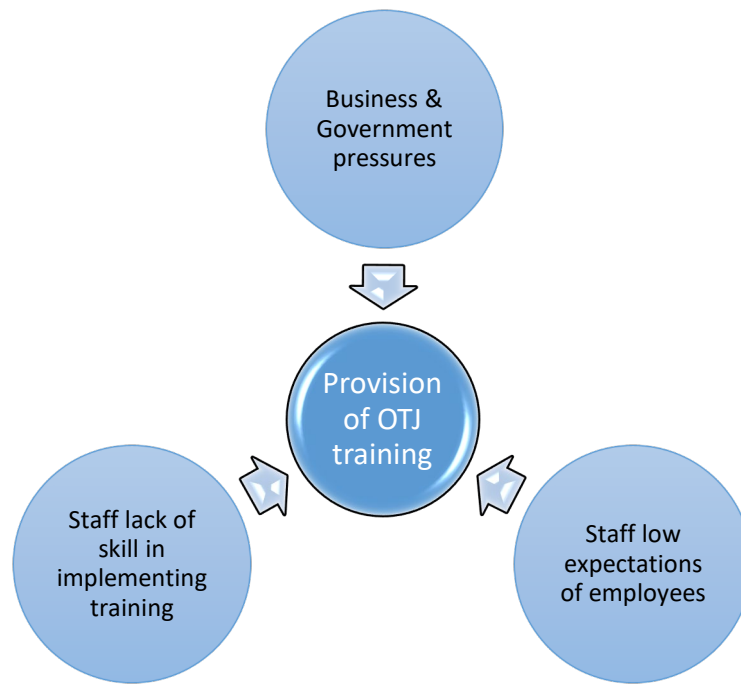


Figure 9.1. Factors that influence the provision of on-the-job training by disability vocational trainers.

9.7 Impact of Disability Standards and NDIS

The Disability Service Standards 2007 are Standards that the Attorney-General created under the *Disability Discrimination Act 1992* (DDA) to specify the rights and responsibilities in regard to equal opportunity for people with a disability in more detail than the DDA itself provides. The Disability Employment Standards included 12 Standards and 26 Key Performance Indicators (Disability & Carers, 2012). Standard 10 “Service recipient training and support” was dedicated to the training and support needs of employees with disabilities. The review of the Disability Standards in December 2013 resulted in Standard 10 being removed and replaced by the new Standard 3 ‘Individual Outcomes’ (Department of Social Services, 2015). Future research could ascertain if the removal of the specific standard focusing on training has had any effect on the provision of training.

During interviews for this current study staff mentioned the potential impact of the newly introduced National Disability Insurance Scheme (NDIS) on employment services. While staff did not have a clear idea of what this may mean for services in the future, one staff member ‘Scott’ (a pseudonym) felt strongly that the impact would not be a positive one for employees with a disability. Scott felt that caregivers were more likely to choose recreational activities rather than employment for the person who they support. As the NDIS has been rolled out throughout Australia these concerns have been realised. Across age groups (15-64) only about one in five participants are receiving employment supports in their NDIS Plans (Disability Services Consulting, 2018) and a suggested reform of the NDIS is to increase the number of NDIS plans that include employment supports (National Disability Services, 2017). Scott felt disability employment services would be forced to compete for employees by offering lower prices to provide an employment service and this would translate into an inferior service for employees. Scott also felt under the NDIS he would no longer employ people he saw as having limited abilities; he did not want someone “who could only sweep the floor.” This further adds to this current study’s findings that staff do not consider those with severe intellectual disability as capable of learning work skills. Staff trained in serving those with severe intellectual disability is vital. Staff who are able to provide these supports and associated training will be pivotal to the success of the NDIS (Dowse, Wiese & Smith, 2016).

9.8 Support for those with severe disability

People with intellectual disability were interviewed and classified as level 4 (i.e. those with severe disability). The Australian Institute of Health and Welfare (2006) classification was utilised. That is, Level 4 people with disability are deemed as having

a severe or profound core activity limitation. Needing support ‘always’ or ‘sometimes’ in the areas of self-care, mobility or communication. However, the researcher in this present study found these employees to be articulate, with many completing Certificate training. Parmenter (1990) reports the “elastic use of the term severe” (p. 189). It may be that services are classifying people with ‘severe’ disabilities because of the increased funding attached to this level. An audit of disability employment services reported they were not fully complying with funding in order to maximise fees claimed (Australian Parliament of Australia, 2009). It is also conceivable that the employees interviewed, while their communication was good, required more support in other areas (e.g. behaviour), which then resulted in level 4 classification. The researcher did not choose which employees would be interviewed (only outlining the inclusion criteria of level 3 or 4 employee for interviews) and staff may have chosen those they considered ‘able’ to be interviewed, which resulted in those with strong verbal skills being chosen for interview. However, ‘creaming’ has been reported (Australian Human Rights Commission, 2016; Department of Social Services, 2018b). Creaming is when disability employment organisations provide services to those are easiest to place into Open employment or most productive in ADEs. This information, together with the findings of this study (that staff may not have the skills/knowledge of strategies to support those with severe disability) may indicate Open employment, which had its roots in providing employment to those with severe disability (Mank et al., 1998) and ADEs that claim to support those with severe disabilities (Australian Government, 2012a), may not be doing so.

9.9 Study Limitations

The findings of this current study should be interpreted with methodological and measurement limitations in mind. Limitations include: (a) a number of questionnaire

respondents withdrew from the online questionnaire before completing the entire questionnaire, (b) there was a limited number of staff interview participants, so findings might not be able to be generalised, (c) only employees with intellectual disabilities working in ADEs were interviewed, (d) a limited number of TAFE/RTO lecturers were interviewed, (e) potential of researcher bias, (f) interviewing those with moderate to severe disabilities and (g) only participants from disability employment services in South Australia (not other states in Australia) were interviewed.

All respondents who participated in the pilot and main studies completed all questions in the hard copy questionnaire. However, of those who completed the questionnaire on line: 10 withdrew at Question 2, seven withdrew at Question 11 and others withdrew consistently as the questionnaire progressed to the final question. In total 31 respondents completed the entire questionnaire. Hence, the questionnaire appeared to be too long with not all respondents completing the final question. Another limitation was that multiple responses to some questions were able to be chosen, thereby allowing staff to choose several answers which made some questions difficult to analyse.

This study had a sample size of 48 staff respondents. With no data available regarding how many staff directly support people with disability in employment (Dowse et al., 2016) it is difficult to ascertain if the sample size is too small to allow the findings to be generalised. However, this study provides important information for research in the area of disability employment training. Results gained here can be considered as a guide, if further participants were available.

Chapters 5 and 7 reported the qualitative interviews of a small, self-selected group of vocational training staff and employees with intellectual disability currently employed in government funded disability employment services in South Australia.

Only employees with disability receiving services from ADEs were interviewed; employees working in Open employment were invited but none were willing to participate.

Chapter 8 reported the qualitative interviews of a small group of lecturers in TAFE and RTO settings that teach either Certificate III or IV Disability in South Australia. While 12.5% of questionnaire respondents reported learning the strategies at university, it was decided not to interview staff from the only Disability course at university level in South Australia, because the lecturer teaching the strategies listed in this study, is also this study's researcher. It was therefore felt that her responses would not be a fair representation of how generally the strategies were being taught.

One potential limitation of the study could relate to the impact the research student herself may have had on participants and the information divulged by them, especially given her experience and years of service in the disability employment field. This means this study's researcher could be described as an "insider" researcher. That is, one that shares the identity and language of the study's staff participants (Dwyer & Buckle, 2009). There are distinct advantages and disadvantages to being an insider researcher. Firstly, participants are likely to be more open, trusting and more accepting of the researcher. However, disadvantages include the researcher having role confusion and responding to data and analyses from their own perspective or preconceived ideas (Al-Natour, 2011; Dwyer & Buckle, 2009). While every effort was made to ensure participants were not influenced by the researcher's comments and that interpretation of data was accurate (i.e. checked by another researcher), hermeneutic research acknowledges that it is impossible to suspend one's own judgments and the researcher must be aware of their biases, and that ultimately the researcher and participant's views/dialogues are combined (Gadamer, 1989, as cited in Dowling, 2004).

Another potential criticism of this current study could be not interviewing the representative sample of those employees with moderate to profound intellectual disability. Processes were initially considered to help support those with both limited cognitive and verbal communication abilities, however most supports were not implemented due to employee participants' high level of communication. Employee participants were invited to be part of this study by disability employment staff using the study's criteria, hence the researcher had minimal input into selection. However, an advantage is that those individuals with milder levels of intellectual disability together with speech as their primary means of expression are more likely to answer questions appropriately (Stancliffe, Tichá, Larson, Hewitt & Nord, 2015). Despite the above limitations, the findings of this study have implications for practice and policy, and these are discussed in the following section.

9.10 Recommendations/Implications for Policy and Practice

Utilising the findings of this current study the following four recommendations for successful provision of OTJ training have been proposed:

- ① A specific Certificate III or IV or Diploma in Disability Employment Training should be developed. The Certificate should provide practical training for disability staff in strategies that promote skill acquisition for those with disability.

This study found vocational trainers were unable to describe utilisation of the strategies as prescribed in the literature. Generally, staff reported to use strategies in an ad hoc manner, not in a structured format as the literature would recommend. Staff need further training on the strategies discussed in this study. Traditional stand-up lectures are an inefficient strategy for imparting new knowledge and skills; instead trainees must apply their training in the environment in which they are to perform the duties and

receive post training feedback (Christian, 1984; Salas et al., 2012; Williams, 2008). A specific practical Certificate III or IV or Diploma in Disability Employment Training should be developed. The Certificate should ensure procedural knowledge of Systematic Instruction and other strategies discussed in this thesis. Procedural knowledge is gained via practice of the training strategies. Therefore, trainees should be assessed and monitored for a successive number of trials before receiving the Certificate, which does not appear to be happening currently. Instruction needs to be a process based on certification whereby students actually perform the strategies while learning. This would increase staff confidence in being able to utilise relevant training strategies to increase the acquisition, variability and fluency of each employee's skill set.

An additional advantage to vocational trainers training employees with disabilities during their own learning of the strategies, might result in employees with disabilities learning new skills. This could result in staff recognising employees' capabilities and staff focusing more on the potential learning abilities of employees.

Other recommendations in regard to instruction for a new Certificate in Disability Training include:

- Student placements having a focus on acquisition of training competencies with placement supervisors having expertise in both student supervision and the training strategies.
- As students begin to master the training strategies the practice conditions should be increasingly difficult, with less trainer support (Salas et al., 2012).

A Certificate in Disability Employment Training would also assist in providing a differentiation between staff roles. Accenting a difference between the specialised skills of OTJ trainers, staff who locate jobs (in Open employment),

staff who provide production assistance (in ADEs) or staff who provide personal care support.

② Australian Government needs to be aware of the policies that provide competing pressures on disability organisations. Open employment contracts need to both decrease red tape and provide more flexibility so that individual needs of employees can be addressed. Upskilling of employees with disabilities needs to take higher priority.

There is tension between Open employment staff providing meaningful workplace supports and limited funding available for ongoing supports (Australian Human Rights Commission, 2016). Currently the Australian government is primarily focused on entry and maintaining employment; however, people with intellectual disability need supports in other areas of employment. For example, provision of training that upskills employees with disability that leads to job rotation, higher wages and job promotion. New accreditation items that address vocational training provision need to be included. Services can only manage what they measure. Disability employment services need to follow the UK and US leads that concentrate on employment advancement rather than simply job entry (Chigavazira, Bowman, & Scutella, 2013). An introduction of payments that rely on training outcomes related to the upskilling of employees with disability may decrease the possibility of ‘parking’ employees. It is acknowledged that for government to recognise and address these additional supports it would require a policy shift, but the benefits would be significant (NESA, 2014).

The administration burden of accreditation requirements for allocation of funding, needs to be addressed by the Department of Social Services (Australia). There

is little doubt that administrative burdens divert resources from supporting employees with disability and by reducing 'red tape', efficiencies could be reinvested in frontline services (NESA, 2014). These additional frontline services could assist employees with disability in (NESA, 2014): (a) gaining and maintaining employment, and (b) provision of training that may assist with employee productivity, career development, job promotion, or being able to undertake a full range of work activities. Furthermore, progression of people with disability across all levels of the workforce could improve recognition of the contribution they can make to workplaces.

This current study found that particularly Open employment staff reported that the government contract mandatory reporting, was excessive. Improvements in red tape have been attempted by Australian funding bodies. However, Open employment staff were still reporting a high administrative burden (DEEWR, 2012a). 'Red tape' reduction with funds redirected to frontline resources such as vocational trainers could result in a renewed focus on upskilling employees. Furthermore, not doing so contravenes the United Nations Convention of the Rights of Persons with Disabilities (CRPD) (United Nations, 2006). Article 27(d) states that people with disability should have access to vocational training. Failing to provide training is in direct violation of the CRPD to which Australia has been a signatory since 2008. However *quality* training, not just training, is what is required to significantly improve outcomes for employees with disability.

Flexibility in funding contracts is required. Those with higher support needs may need a variety of longer term supports or more time to find employment. In terms of the provision of supports to those with disability in Open employment, recent changes may assist. Previously Open employment services were only required to ensure a person with disability remained in a job for 26 weeks in order for the disability service

to receive payment. Changes in new contracts from March 2013 now require a 52-week outcome (DSS, 2018b). It is hoped that this change will ensure staff provide supports for a longer period of time to ensure outcome milestones and payments.

It has been acknowledged that a training culture is unlikely to evolve purely from “government fiat” (Harris et al., 2000, p. vii). Approaches that organisations need to consider enhancing their training culture include: valuing training and development (Ridoutt et.al., 2002); linking learning outcomes to performance plans (Rama & Vaishnavi, 2012) and; providing staff supervision (Billett, 2001; Punia & Kant, 2013). Thus, it is important that individual organisations implement other recommendations suggested here.

3 Staff need to be aware of their perceptions of ‘competence’ or ‘incompetence’ of employees with disabilities and utilise a strengths-based model to provide work tasks that can challenge both staff training skills and employees with disabilities.

The catchphrase for the 10th anniversary of the *Australian Disability Discrimination Act* is applicable here – “Don’t judge what I can do by what you think I can’t” (Australian Human Rights Commission, n.d.). Staff attitudes toward employees with disabilities can affect how they interact and whether they attempt training (Mansell et al., 2008; Phillips, 2015; Venema et al., 2015). Findings from the present study suggest that staff should apply a strengths-based model whereby the employee with disability is viewed as having capabilities; this increases the chances of success for a person with disability (Australian Government, 2013a; DSS, 2014; Gidron, 2014; Russo, 1999). A strengths perspective emphasises the person’s strengths rather than problems. It views a person with disability as having abilities, capabilities, skills, ideas, talent and potential for growth (Russo, 1999). When staff focus on identifying and supporting a person's strengths, this increases the chances of success for a person with

disability. This current study recommends utilising the ‘Supports Paradigm’ that focuses on bridging the gap between personal competency and demands of the environment (Shogren, Wehmeyer, & Singh, 2017). In relation to employment for those with intellectual disability this entails establishing the individual’s vocational goals and then providing modifications and ongoing supports to ensure employment success (Shogren, Wehmeyer, & Singh, 2017). Through the ‘discovery personal genius’ process Customised Employment identifies the individual job seeker’s strengths and interests. Further steps in CE include ensuring a job match that benefits both the employer and employee with disability and, ongoing workplace training and supports (Griffin et al., 2007; Hammis & Geary 2007).

④ Management and staff in disability employment services need to proactively support training of employees with disability by: (1) developing ITP templates and schedules for training and, (2) offering jobs and workplace tasks that meet the individual needs and employment goals of employees with disabilities.

ITP template

A quality ITP template that ensures goals, objectives and resources are correctly completed by staff could support workplace outcomes for those with disability. Clearly stated goals serve in part as a training needs analysis that highlights who needs what training. An important part of service provision is to ensure individual goals for those with disabilities are recorded and training and supports provided meet the objectives (Cummins, 1996; McDonnell et al., 1989). A recommendation of this current study is that training needs should be placed into an overall organisation’s weekly training schedule. A training schedule could ensure that training is both implemented and prompts for follow-up training. How an organisation implements, and reviews ITPs can

be varied but must be completed regularly to ensure individual planning is achieved in practice (Radcliffe & Hegarty, 2001).

Recommendations for meeting the employment goals of employees with disability

It is a finding of this current study that the training needs of employees with intellectual disability are not being met. Poor job match and business and government pressures contribute to this outcome.

Disability employment services need to meet the principles and objectives of *The Disability Services Act, 1986 (DSA)*. This includes services being tailored to meet the individual needs and goals of the people with disabilities receiving those services. This study asserts that training provision and workplace outcomes will be improved if employees with disability are supported in roles that are matched to their strengths and interests. The current procedures where employees with disabilities are matched to pre-existing job vacancies that require little customisation may result in a poor job match and offer only short-term employment. The use of Discovery Personal Genius (Griffin et al., 2007) that uses a strength-based approach, whereby information is gathered about the job seeker's interests and skills to ensure a strong job match is recommended prior to a job seeker with disability being placed in employment.

Open employment services should consider adopting the principles of Customised Employment to improve training and supports for those with intellectual disability. Customised Employment comprises of a job that is a restructure of an existing position, or realignment of tasks to create a new position that fits both the jobseeker and employer's needs (Griffin et al., 2007; Hammis & Geary 2007). A key feature of Customised Employment is systematic OTJ training, and post placement ongoing training, supports and monitoring (MarcGold.com, n.d.).

A further suggestion to ensure people with disability are placed in work that matches their interests and where OTJ training is a major component is micro enterprises as described by the Community Living Project (Community Living Project, 2015). Micro enterprises assist those with disability to pursue their interests and utilise their strengths to establish their own micro/small business.

Business pressures are hindering the provision of OTJ training in ADEs. Therefore, ADEs should consider transitioning to Social Enterprises. Social Enterprises are defined by having a social purpose i.e. support employment for those with disability, while additionally operating commercially viable businesses (Lysaght, Jakobsen & Granhaug, 2012). A renewed focus on operating viable businesses may assist ADEs to rely less on industries that are at risk of automation and that have small profit margins. Furthermore, increased confidence in product-market certainty has been linked to increased training provision (Blandy et al., 2000). Reported advantages for employees with intellectual disability employed in Social Enterprises include varied duties and, increased personal and professional development through the provision of training (Meltzer et al., 2016; Smith, McVilly, McGillivray & Chan, 2018).

For Australian disability services to increase the provision of OTJ training, this current study recommends the implementation of Discovery Personal Genius, Customised Employment, micro enterprises, and ADE transition to Social Enterprises. This will require major shifts by government, services and staff. However, “bold, innovative measures” are necessary to improve employment rates and outcomes for those with intellectual disability (Disability Advocacy Network Australia, 2014, p. 8).

9.11 Future Research

The need for further research in the area of disability employment is significant, because without it we risk only having enthusiasm and hope, which in turn can yield to

disillusionment, less effective services and the loss of professionals who may not stay working in the disability field (Heal, Sigelman, & Switzky, 1978; Kirby, 1997).

One of the major issues raised in this current study was the lack of procedural knowledge of the overwhelming majority of the 19 strategies discussed. Future research should address whether this is indeed an issue affecting the majority of disability employment staff. Training provided to vocational trainers was a major issue for staff participants in this study. The training provided does not appear to be of sufficient quality to meet the needs of vocational training staff. Under the NDIS, pressure for staff to improve their skills and deliver high quality services will increase (Dowse et al., 2016). Further research into TAFE/RTO curriculums for the Certificates in Disability Studies should be examined to ascertain if they are incorporating both practice and feedback for students in order to optimise their learning.

Of the 19 strategies examined in this study some of the strategies have empirical data conducted more than 40 years ago. Other strategies need further research that verifies their efficacy. Therefore, future research into the effectiveness of training strategies for those with intellectual disability is a necessity (Ecker, 2016; Gilson, Carter & Biggs, 2017; Odom et. al., 2005; Storey, 2007). Gold (1973) suggested that future research in this area should be evaluated by those for whom the research was designed. This suggestion is relevant today. Including disability employment staff in future research could assist with overcoming problems of future implementation of the strategies in the field. For example, staff involvement may provide insight in the way training may be most effectively delivered and what may be barriers to implementation of training to employees with disability (Dew & Boydell, 2017).

This current study included interviews with a limited number of staff, employees with disability and TAFE/RTO lecturers. Interviews provided information from six

South Australian services. Therefore, further research is needed to determine if the views expressed and data collected in this study can be generalised to disability services and Disability Certificates Australia wide. Furthermore, only employees with intellectual disability receiving services from ADEs were interviewed so it would be advantageous to collect data from employees in Open employment. This would provide data to compare the perceptions of training of those with intellectual disability working in Open employment and ADEs and comparisons between the two disability employment services.

Other areas of future research include: (1) The extent to which the provision of training to employees with disability leads to increased wages and job promotion for employees with disabilities, (2) The type of jobs that people with intellectual disability are offered and engaged in and if this is meeting their needs, and (3) The extent to which staff's provision of ongoing training and support long term may lead to employees' new skill acquisition, generalisation and maintenance.

The following chapter discusses the key findings of this study and provides a conclusion.

Chapter 10: Key Findings & Conclusion

This study investigated factors that could impact on-the-job training for employees with intellectual disability. As limited research has focused on the provision of training in disability employment, specifically in Australia, the findings of examining the use of training strategies by disability vocational trainers makes a significant contribution in the following areas: (i) an insight into what training is both provided and received; (ii) highlights a variety of issues within the Australian disability employment sector, such as vocational trainers' attitudes and limited procedural knowledge and business and government pressures; and (iii) recommendations to possibly improve existing training provision for both staff and those with intellectual disability.

10.1 Summary of Key Findings

The current study findings indicated that the provision of training for employees with intellectual disability was limited in both nature and extent. That is, training provision was being delivered mainly using one strategy, 'show and tell', even when employees with intellectual disability were requesting additional training. The current study also revealed that vocational trainers providing the training were not receiving quality training themselves through their Certificate in Disability studies. While it is acknowledged that training alone will not solve all the problems associated with lack of productive employment opportunities (Bennell, 1999), lack of training does result in underemployment and wages too low to achieve economic self-sufficiency (Singh, 2016). Furthermore, often training is the difference between success and failure in the workplace (Tate, 2008). The provision of training to those with disability and the staff who provide them is vital, to improve disability employment services for those with intellectual disability. Government funding sources and disability employment services

need to view training as a necessity, as an “investment in an organization’s human capital,” not purely as a cost (Salas et al., 2012, p.92).

Further key findings include the following:

- 18 out of the 19 training strategies examined in this study were reported to be utilised by all staff in the questionnaire however, during interviews staff were unable to explain how to utilise the strategies in line with literature recommendations.
- ‘Show and tell’ is the dominant training method utilised to train employees with disabilities.
- Staff’s limited knowledge and skill in implementing a variety of strategies, could be due to inadequate instruction they received in the strategies.
- Implementation of training was further hampered by staff’s lack of motivation in competing business and government requirements and lack of belief in the abilities of employees with disability.
- Employees with disability reported enjoying working but requested training on a variety of other tasks they would like to undertake.
- Employees interviewed had tertiary qualifications in areas that were not being utilised in their current workplaces.
- Workplace production needs dictate what tasks and how often training occurs.

10.2 Conclusion

It was demonstrated some 60+ years ago that people with intellectual disability could learn complex workplace tasks if provided with appropriate training. Since that time the work of many researchers in the disability field has further developed a variety of valuable training strategies. Previous studies have anecdotally reported that staff in Australia may not be utilising the strategies and this present study highlighted that this

has persisted to this day. While this study revealed that many employees who were labelled 'severely disabled' possess a variety of workplace competencies, it also found that staff had low expectations of employees. This impacted negatively on staff motivation to provide training to employees with intellectual disability. However, it would be inaccurate to hold staff exclusively responsible for lack of training provided to employees with disability. Many factors such as: lack of suitable education for staff, menial tasks being offered to employees, competing business demands and funding bodies' administrative burdens also contribute to lack of training provision. Hence, multiple factors, including provision of high quality, on-the-job training must be addressed to attain improved employment outcomes for employees with disabilities.

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Appendices

Appendix A: Description of strategies and stages of learning

Fifteen strategies were included in the pilot study. Nineteen strategies were included in the main study (*denotes the three strategies added after the pilot study was completed).

Strategy	Description
Task analysis	<p><i>Listing a task into its smaller sequential steps.</i></p> <p>A task analysis tells us the order in which the task is performed and the sequence in which instruction should occur (Jonassen, Tessmer, & Hannum, 2009). Task analysis is an effective way to plan the teaching of skills that require several steps to be performed in a certain order (Carter & Kemp, 1996). Task analysis is a preparatory step to training or support and it is an important way of recording information about the learner's progress (Morgan et al., 2011). Learning is aided by breaking tasks into steps (Matthews, Nankervis, & Payne, 2008).</p>
Prompts/cues	<p><i>Physical, gestural or verbal reminders.</i></p> <p>Prompts are utilised to increase the possibility of accurate responding and can be described as assistance, support, cues and hints (Wolery et al., 1992). If an employee does not respond or responds incorrectly, the trainer delivers a 'prompt' that gives the employee the information needed to do the task correctly. One of the most important tools that will allow a high rate of learning success for people with an intellectual disability is the prompting hierarchy (Libby et al., 2008). The prompting hierarchy allows the trainer to use least methods of prompting; the prompting hierarchy starts at gestural prompts and works through verbal, partial physical and ends in full physical prompting (McCarthy, 2013).</p>
Fading	<p><i>As the skill is learnt, the prompt or cue is faded to a less obvious prompt or natural stimuli.</i></p> <p>Once a behaviour is established through the use of prompts, cues or reinforcers, these stimuli can be faded, delayed or gradually removed from the training situation (Kearney, 2008).</p> <p>Prompts should be faded out as soon as possible (i.e. when the learner exhibits correct responses a reduction in prompts should occur) (Wolery et al., 1992). A vocational trainer should fade out their support by using less prompts and/or 'fading' to using the least restrictive prompts; this is considered to be fading or going down the prompt hierarchy (Wolery et al., 1992).</p> <p>Initially, the prompts control the learner's behaviour by providing guidance for the correct response. As time passes the learner will pair the prompts with the desired behaviour, giving staff time to start removing the prompts (Wolery et al., 1992).</p>

Strategy (continued)**Description**

Reinforcement/rewards

Providing something the employee with a disability enjoys other than their usual pay (i.e. praise).

Positive reinforcement is synonymous with the word reward. However, it may take several rewards or repetitions before the response can be said to be reinforced (Martin & Pear, 2015). Many people use the terms reward and reinforcement interchangeably. However, a reward is typically a tangible item, such as praise, whereas reinforcement is an action.

Cooper et al. (2007) categorises rewards into five groups:

- Social – found in the behaviour of others
- Physical – can be seen, touched, felt
- Activity – an activity the person likes
- Consumable – items that one can eat or drink
- Possessional – enjoy some items that one possesses

Trainers can elicit correct responses from learners by providing a reward (that the learner values) contingent on the behaviour. Rewards are utilised in the expectation that a behaviour becomes reinforced (i.e. the likelihood of the desired behaviour occurring is increased).

Show and tell

Demonstrate the task and explain as you demonstrate.

Show and tell is considered a tried and tested training method (Rae, 1995). It involves: ‘showing’ (the trainer demonstrates the task to be learnt) and ‘telling’ (i.e. sharing information or knowledge).

While ‘tell’ on its own is reported as the most ineffective method of training, the addition of ‘show’ increases learning. However, merely hearing and seeing is not enough to learn (Sibemann & Biech, 2015). These steps should then be followed by ‘do’, whereby the learner is involved by performing the practical activity (Rae, 1995).

So the three steps involved in show and tell can be described as follows:

1. Explain the process/task that the trainer is going to train (auditory).
2. Show the trainer how to do it (visual).
3. Have the learner try it on their own (hands on/touch).

This approach has been utilised for many years and studies indicate that the ‘doing’ part of the process is by far the most powerful factor (Rae, 1995). Note that during the third step, the trainer is still involved in the process, and will be monitoring, correcting and guiding the learner (Sibemann & Biech, 2015).

Strategy (continued)	Description
Modelling/demonstration	<p data-bbox="635 248 1321 320"><i>Providing a demonstration of the required skill, with no verbal explanation.</i></p> <p data-bbox="635 347 1417 663">Demonstrating or modelling is described as showing the participant the correct behaviour or skill (Martin & Pear, 2015). A trainer will demonstrate a task and the employee is expected to imitate the staff model (Bender, 2012). When demonstrating a desired behaviour that requires a verbal response the modelling needs to be done verbally. Likewise, if the required behaviour is physical, then the modelling must be done physically (Wolery et al., 1992). The advantages of a demonstration are that it does not require physical contact and can be given to multiple people at once.</p>
Shaping	<p data-bbox="635 752 1246 792"><i>Rewarding close approximations of required behaviour.</i></p> <p data-bbox="635 819 1433 1059">Shaping is accepting approximations of a desired behaviour (Downing, 1996). For example, at first you might accept a skill or behaviour being completed only partly correctly, eventually you will be expecting the skill/behaviour to be completed accurately – this process of accepting the ‘closer approximations’ is referred to as shaping (Skinner, 1953). Shaping has its roots in operant conditioning; the process includes the trainer reinforcing correct, not incorrect responses (Galbicka, 1994).</p> <p data-bbox="635 1086 1433 1330">The shaping process begins with reinforcing responses of the learner’s current repertoire that share an important topographical feature with the final behaviour. When the initially reinforced responses become more frequent the trainer modifies reinforcement to only those that are a closer approximation of the final behaviour. By rewarding a series of successive approximations, we bring a rare behaviour to a high probability (Cooper et al., 2007).</p>
Match-to-sample	<p data-bbox="635 1420 1406 1491"><i>Using a correct example of a completed item as an example of how the task should be completed.</i></p> <p data-bbox="635 1518 1433 1899">Match-to-sample is where a choice of stimulus that matches a sample stimulus is presented and is also known as “stimulus equivalence” (Rehfeldt, 2011, p. 109). The father of Applied Behaviour analysis, BF Skinner is credited with introducing the procedure ‘matching-to-sample.’ (Cooper et al., 2007). To start a match-to-sample trial the learner will be asked to match their object from a variety of objects. Responses selected that are nonmatching will not be rewarded. Correction is given for incorrect responses and positioning can be altered or manipulated to help illicit choice for the correct object. Match-to-sample can be taught using pictures/photos, an actual item or by having an image on an automated device (i.e. computer, tablet).</p>

Strategy (continued)**Description**

Penalty/Punishment

Offering an undesirable consequence for a behaviour.

Punishment has negative connotations but according to ABA, it merely means a consequence that is likely to decrease the future probability of the behaviour occurring. “Although many people consider punishment a bad thing ... punishment is as important to learning as reinforcement” (Cooper et al., 2007, p. 327). Punishment is a natural phenomenon that teaches us to avoid responses that cause harm. Punishment is one of the basic principles of operant conditioning, but is frequently misapplied and its application can be controversial (Cooper et al., 2007).

Results of research conducted over the past four decades have shown that punishment (e.g. verbal reprimands, restraint, removal of reinforcing activities or reinforcers and time-out) is effective in reducing problem behaviour and can produce an immediate, substantial suppression in problem behaviour (Lerman & Vorndran, 2002). Results of basic and applied research indicate that current treatment approaches based on punishment are highly effective and are sometimes needed to reduce destructive behaviour to acceptable levels of behaviour (Lerman & Vorndran, 2002).

Storey and Post (2014) warn that aversive punishment such as electric shock, verbal abuse and hair pulling are condemned by human rights groups and should never be used with an individual with disability. Advocates of punishment maintain that particular rules should apply when utilising punishments. Despite the negativity associated with punishments, studies have found that staff continue to rely on punishments (Carr et al., 1999; Horner et al., 2002; Snell et al., 2005).

Positive Behaviour Support

Using approaches to change an unwanted behaviour.

PBS has emerged from ABA technology, normalisation movement and person-centred values (Carr et al., 2002). PBS is so closely aligned to ABA and clinical psychology that Johnston, Foxx, Jacobson, Green and Mulick (2006) do not feel PBS is warranted to distinguish itself as a new or separate field. Despite this, PBS has been a dynamic and growing enterprise for more than 25 years. During this period, PBS has expanded and as a result, there have been inconsistencies and confusion regarding the definition of PBS (Kincaid et al., 2016). Therefore, the authors present what they suggest is a unified definition of PBS:

PBS is an approach to behavior support that includes an ongoing process of research-based assessment, intervention, and data-based decision making focused on building social and other functional competencies, creating supportive contexts, and preventing the occurrence of problem behaviors (p. 71).

The process of PBS can be involved and time consuming and includes (Carr et al., 2002):

Strategy (continued)

Description

Positive Behaviour Support

1. A Functional Behaviour Assessment (FBA) which develops and tests a hypothesis.
2. Developing a behavioural plan that address setting events, antecedents and consequences that are maintaining the behaviour of concern. In addition, individuals are also taught new skills.

Brown, Anderson and De Pry (2015) concur and state “Effective implementation of PBS can be a complex endeavour” (p. 417). There are many variables related to the plan, design, implementation and effectiveness of behavioural plans. Factors such as the individual’s cognitive, sensory, motor and social, skills can influence responsiveness to intervention. People implanting the plan may have critical influence. Plus, the environment and systems such as physical setting and routines can affect the outcomes of behavioural plans (Hieneman, 2015).

Adaptation

Providing a modification, technology or jig to aid the learner to be able to complete a task.

Adaptations play a major role in acquiring valuable skills (Downing, 1996). Enabling people with disability to take full advantage of adaptations is imperative for their success, as it enhances the capabilities of individuals (Alper & Raharinirina, 2006).

The term assistive technology is often used to describe the variety of devices that are available to help an individual with a disability perform job tasks. It can be divided into low or high technology (Haynes, 2013). Low technology refers to adaptation to materials or activities that are easy to make and/or low cost such as color-coded keys, pencil grips or large key calculators. High technology refers to devices or pieces of equipment that are more complex, and often involve computers and software such as voice input, braille printers or eye tracking devices and switches for a computer. The key is to match the technology with the support needs of the individual (Storey & Miner, 2011).

Self-instruction

Teaching employee with disability to use self-talk to complete a task.

Self-instruction is included in a group of techniques entitled self-management procedures. These procedures are also known as self-monitoring, self-evaluation, and self-instruction (Baer, 1984). Self-management skills aid individuals to monitor and reinforce their own behaviour, which decreases reliance on external prompts and reinforcement (Storey & Miner, 2011; Zaretsky, Flanagan, & Moroz, 2011). These techniques have been shown to be effective for changing behaviours of those with intellectual disability (Mithaug et al., 2007) including those with low cognitive functioning (Rusch, McKee, Chadsey-Rusch, & Renzaglia, 1988). Literature suggests that the effectiveness of this approach is contingent on the level of structuring provided by the trainer and the interest of the trainee (Zaretsky et al., 2011).

- 1.

Strategy (continued)**Description**

Self-instruction

Self-Instruction is a cognitive technique which aims to give employees control over their behaviour through guided self-talk that gradually becomes covert and self-generated (Callahan & Rademacher, 1999). Put simply, employees quite literally learn to talk themselves through a task or activity (Reid, Lienemann, & Hagaman, 2013). Supported employees learn to 'talk to themselves,' which serves to direct their behaviour as if they were being directed by an employment coach (Agran & Moore, 1994). Self-Instruction is used to decrease distractibility or increase attending to task (Rusch et al., 1985).

The steps for Self-Instruction include the trainer modelling the behaviour and saying the steps overtly through to the employee completing the behaviour saying steps covertly (Rusch et al., 1985):

1. Trainer models and verbalises task
2. Learner performs task and trainer verbalises
3. Learner performs task and verbalises. Trainer whispers
4. Learner performs task and whispers. Trainer uses lip movements but no sound
5. Learner performs with lip movements but no sound
6. Learner performs task while covertly self-instructing.

Pictures/Storyboards
(Visual Aids)

Pictures to demonstrate the correct sequence of a task.

People with intellectual disability sometimes have difficulty understanding written text, and pictures can support text (Shiose, Kagiya, Toda, Kawakami, & Katai, 2010). Picture recognition effectively occurs every day and can support learning for people with intellectual disability (Stephenson & Linfoot, 1996). Pictures can be used to show an employee how to behave or respond. A trainer can use pictures to display to an employee what steps are required to complete a task. When possible, the pictures should show the person doing the task in the environment where the task is required to be done (Stephenson & Linfoot, 1996). Pictures should be incorporated with other methods of training (Storey, 2007). Wolery et al. (1992) states that visual aids should incorporate both written and pictorial cues. Whereas, den Brok and Sterkenburg (2015) found that by using a handheld device such as an iPad, learners can receive visual and audial instructions simultaneously. The advantage of having visual aids is that the employee can perform the task or technique without the instructor being present. Pictures can assist learners to do the next step of a complex chain of responses. These pictures can be put in a book, stuck on a wall or laminated. The advantage of pictures is they can be relatively permanent, so it is not necessary for the trainer to present the steps each time and learners can learn to do new responses in a relatively independent manner. A disadvantage of pictures is that learners must understand what is depicted and identify the relevant characteristics of the pictures (Wolery et al., 1992).

Strategy (continued)**Description**

Data Collection

Collecting information on details of work the employee completes.

Data collection can assist with implementing, monitoring and adjusting training programs (Wolery et al., 1992). Programs should be tailored to the specific needs of the employee and to identify and solve acquisition problems, a trainer should carefully monitor and analyse a learner's responses. This aids the trainer to determine whether sufficient progress is being made (Brown et al., 2015; Wolery et al., 1992).

The data should be collected regularly to make decisions about instructional effectiveness (or lack of) and for adapting instruction (Storey & Miner, 2011). The more frequent the data collection the more sensitive to change the analysis becomes. Data collection promotes a more systematic approach to training. Data should be collected prior to instruction (baseline) and frequently throughout the learning process (Storey & Miner, 2011).

Data can be collected for a variety of reasons, for example, when teaching a skill baseline data is collected. A trainer will assess what a learner can already do by writing a task analysis, giving an instruction and seeing how many of the steps (of the task analysis) the employee can complete. If the employee does not perform a step the trainer would score this as a minus (-). Then on subsequent training trials the trainer records whether the learner needed assistance at each of the steps, or if they were independent on the step (Storey & Miner, 2011). This information helps highlight whether the employee is learning the task and if any particular steps are causing difficulty, in which case an adaptation or mass trials of those steps may be warranted. Another reason data may be collected is to assess the rate of fluency. That is, how quickly a task can be performed and/or the accuracy of the task (i.e. how many errors are made). Data is also collected during a PBS Plan. Information gleaned from data in an ABC (antecedent, behaviour, consequence) Chart and/or Scatterplots can be critical to the program's success.

Individual Training Plans
(ITPs)

A record of what the learner would like to learn or is learning.

There is increasing responsibility for practitioners to demonstrate the effectiveness of their service delivery (Hurn et al., 2006; NDIS Rights, 2018). Person centred, highly individualised services should be denoted by the use of personalised goal setting. Goal setting can be traced back to Locke's work, which focused on providing motivation in the workplace (Locke, 1968). Locke's definition of a goal is what an individual is 'trying to accomplish' (Hurn et al., 2006).

Strategy (continued)**Description**

Individual Training Plans (ITPs)

In disability employment, training plans "...document a person's goals and needs and how the disability service provider(s) will support them to meet those needs" (Victorian Government, 2009, p. 8). Throughout different disability employment services, training plans are known by a variety of names (i.e. ITPs, EAPs [Employment Assistance Plans], training records, support plans, etc.). Whatever they are called, for a supported employee the ITP should include what the employee will learn and the corresponding supports in order to achieve their employment aspirations. The *Disability Act 2006* (Disability Act, 2006) provides a clear guide to completing an ITP: A disability service provider must ensure that a support plan is prepared within 60 days of a person commencing to regularly access the service. The support plan must be reviewed at least once every 3 years or a review may be initiated at any time.

Furthermore, ITPs must:

- reflect the goals of the person with a disability; and
- describe how the support from the disability service provider is intended to address their goals. This includes an exploration of the strategies and resources required to support the individual. (Department of Human Services [DHS], 2007).

Video Modelling

Video recording correct behaviour then learner watches the video on numerous occasions.

Video modelling has been proven to be a useful technique to teach a variety of skills and behaviours across disability types and ages (Buggey & Ogle, 2012). Video modelling is a form of learning in which desired behaviours are learned by watching a video demonstration (Burton, Anderson, Prater, & Dyches, 2013). The two main types of video modelling are self-video modelling and video modelling. Video modelling is when a peer or instructor videos themselves so that others can learn from them. Whereas, self-video modelling is when the learner is filmed performing the task without mistake, so that they can watch themselves perform the task at a higher proficiency than normal (Burton et al., 2013). Shipley-Benamou, Lutzker and Taubman (2002) state that there is no difference in the overall outcome from each style of video modelling. Whereas Cihak and Schrader (2008) found better outcomes from self-video modelling, because it shows the person from their point of view and reinforces that they can complete the task.

The main advantage of video modelling is that the learner does not require an instructor to be present during the practice and that it can be played over several times. Furthermore, video modelling is very inclusive and can be developed for everyone, whether they have a disability or not (Mechling, Ayres, Bryant, & Foster, 2014). Today's access to iPads and smartphones have opened the way for this technology to be easily utilised (Bender, 2012).

Strategy (continued)**Description*****Natural Supports**

Training co-workers in the employee's workplace to provide support and training to the person with a disability.

Natural supports are workplace strategies, routines and resources that an employee's employers or co-workers provide on the job that are normative in that setting (Rogan, 1996). These may occur spontaneously or through staff facilitation (Hagner, Butterworth, & Keith, 1995). The concept of natural supports was formally introduced to the field of supported employment in 1988 (Test & Wood, 1996). Borne from the belief that a sole reliance on disability employment service personnel would not only isolate supported employees from their typical co-workers, but that this approach simply could not be sustained financially (Callahan, Griffin, & Hammis, 2011).

Natural supports are reported to assist people with disability to get and keep employment (Rogan, 1996) and may lead to better workplace outcomes such as wages (Mank et al., 1998). Furthermore, the use of natural supports correlates with greater social participation in the workplace, better outcomes, and lower support costs (Migliore et al., 2012) and influence of supervisor satisfaction with an employee (Hagner et al., 1995).

***Job Matching**

Employee's interests and employer's needs are matched.

An important concern when developing community-based, supported work options for adults with severe disabilities is matching job tasks with work preferences of potential workers (Lattimore, Parsons, & Reid, 2003). Ensuring workers with severe disabilities access jobs in accordance with their work preferences represents a component of currently recommended practices in the vocational field (Everson & Reid, 1997). Opportunities to work on preferred tasks relative to non-preferred job assignments can enhance job performance as well as overall quality of work life (Lattimore et al., 2003).

People with disability are more likely to accept employment which does not fully utilise their skills or qualifications and they are significantly more likely to be mismatched than the non-disabled (Jones & Sloane, 2010). This results in lower job satisfaction and adversely impacts on wages (Jones & Sloane, 2010).

The practice of job matching appears to be outlined by many; however, the processes carried out within job matching are often not explicitly set out. Disability Employment Australia, the peak body for Australia's Disability Employment Services describes the process of job matching as gaining information on the future employee life experiences and any unique skills or personality traits plus offering a work trial (Disability Employment Australia, 2011). The International Labor Office explains job matching as making the best possible match between their job seekers' qualifications, interests and expectations and the requirements of businesses as indicated in the job descriptions (Heron, 2005).

Strategy (continued)**Description*****Job Matching**

Similarly, Leach, Beyer and Willingham (2002) explain job matching includes discovering the individual's strengths and preferences and then trying to match their skills and aspirations. Establishing relationships between employee and employer is an important element in the job-matching process and hence, both the client's needs and the employer's needs must be accommodated (Leach et al., 2002).

***Job Carving**

Finding tasks that an employee with a disability can complete from other jobs.

Job carving is also referred to as job negotiation, job creation or job sharing (Migliore et al., 2012). Job carving is a supported employment strategy designed to provide additional employment opportunities for individuals with disabilities. Job carving involves creating, modifying, or customising a community-based job such that it can be successfully performed by an individual with disabilities, while simultaneously meeting the needs of an employer (Graff, 2013). Job carving typically involves conducting a task analysis of a job by breaking it down into a series of smaller steps. This allows an employer or vocational specialist to identify which parts of a job might be completed by an individual with disabilities. Skills carved out from several jobs can be combined into a new job that is tailored to fit the skills, preferences, and level of supports required for an individual, and meets the needs of the employer (Graff, 2013). Job carving can be defined as reassigning duties from current staff to supported employees in such a way as to maximise employee productivity and organisational efficiency (Nietupski & Hamre-Nietupski, 2000).

A seven-step method for job carving for people with severe cognitive and physical disabilities is outlined by Nietupski and Hamre-Nietupski (2000):

Step 1: Target Several Candidates with a Range of Skills and Support Needs

Step 2: Develop an "Ideal Job Match Hypothesis" to Guide Job Development

Step 3: Target Businesses that Might Match Hypotheses

Step 4: Obtain Employer Acknowledgment of Benefits of Carving

Step 5: Observe and Interview Operations Staff to Identify Duties

Step 6: Match Duties to Candidates

Step 7: Develop and Present Hiring Proposal.

Griffin (1994) cautions job carving should not be used to further devalue people with disability by having them perform tasks considered menial or dangerous. Instead, job carving should not only benefit individuals with disabilities through job creation, but also benefit a business through increased productivity of other staff (Nietupski & Hamre-Nietupski, 2000).

Strategy (continued)**Description**

Mnemonics

The use of patterns of letters, or associations that assist with memory.

Mnemonic is a memory-aiding strategy that helps organise, retain and remember information by making recall easy (Thaut, Peterson, McIntosh, & Hoemberg, 2014). There are two types of mnemonics: imagery and verbal mnemonics. Imagery mnemonics has led to improvements in learning face–name associations, and foreign language vocabulary (Cook, 1989). Verbal mnemonics includes where first letters of to-be-remembered items are combined together to form an acrostic or acronym (Cook, 1989). For example, by remembering ROY G BIV you can reproduce the order and colours of the rainbow (Red, Orange, Yellow, Green, Blue, Indigo, Violet).

Stages of Learning**Description**

Acquisition

Acquisition is the initial stage of learning. At the beginning of this stage the trainer focuses on teaching the learner to perform the task accurately and without any errors (Brown et al., 2015). The importance of the acquisition phase of learning is obviously apparent. It is central to being safe, independent and competent in the work environment (Wolery et al., 1992).

Fluency

Fluency is the next stage of learning and “describes the extent to which the learner can perform the behavior smoothly and without hesitation” (Brown et al., 2015, p. 185). Employment trainers should promote performance fluency, that is, employees with disabilities should be able to complete tasks in a timely manner without serious breaks in performance. Production rate is very important, as skill acquisition alone will not guarantee success in vocational settings (Halle et al., 1989). Nevertheless, fluency can sometimes be difficult to achieve and strategies such as staff supervision/guidance, prompting, verbal instructions, modelling and reinforcement are often required (Lancioni, O’Reilly, Campodonico, & Mantini, 2001).

Maintenance

Maintenance “is the student’s ability to perform the target behaviour over time, after instruction has ceased” (Brown et al., 2015, p. 229). Maintenance of skills is important because: Frequently people learn a skill but do not use it, and as a result they lose that skill. If an employee is unable to maintain the more basic skills, then they will not be able to learn more complex skills (Wolery et al., 1992).

Ways of facilitating maintenance include (Wolery et al., 1992): (a) overlearning; sustained practice will make it more likely that a person will maintain the skill, and (b) manipulation of the reinforcers. Manipulation of the reinforcers can take several forms. Reinforcers should be delivered more when first learning a new task and then faded as acquisition is increased.

**Stages of Learning
(continued)**

Description

Generalisation

“Generalization refers to correct responding in situation other than the training situation,” in fact if skills are only applied in the training situation then the program has not met its primary goal (Wolery et al., 1992, p. 20). There are several different types of generalisation, including generalisation across person, across materials, across natural consequences, across stimuli, across setting and across time (Haring, 1988).

A strategy that trainers have relied upon for generalisation is “train and hope” which involves training during the acquisition phase and hope for later generalisation (Liberty, 1988, p. 15). This is generally unsuccessful because generalisation does not always occur automatically (Ellis, 1981). Generalisation needs to be programmed rather than passively expected as an outcome (Stokes & Baer, 1977). Strategies that support generalisation include (Liberty & Michael, 1985): (a) conduct the training in the natural environment, (b) use natural reinforcers, (c) reinforce for generalisation rather than acquisition performance, (d) use materials that are likely to be in the natural environment, and (e) check in non-training settings and if generalisation does occur, then train.

Variability

Task variability refers to the routineness of the job (Shukla, 2005). The two methods of job variability are job enlargement and job rotation (Campion et al., 1994). Job enlargement includes learning a variety of workplace skills and tasks, whereas job rotation refers to changing tasks throughout the day or weeks.

Skill variety in a job is extremely important for a range of reasons. For example, constant repetitive motions may ultimately lead to injury (Government of Canada, 2016). The principle reason behind providing skill variety in a job is that it will reduce boredom, thereby increasing job satisfaction and motivation (Oloberson & Crossman, 1976).

When people with disability are engaged in work the majority find themselves underemployed in poorly paid jobs which are both unrewarding and undemanding (Barnes, 1992) with few opportunities for advancement (Barnes, 2000). Skill variability provides employees with an opportunity to take on skills of greater complexity enabling them to progress in their career (Bloom, Anderson, Wavelet, Gardiner, & Fishman, 2002).

Appendix B: Timeline for Ethics Approval

Timeline for Ethics Approval

Month, Year	Milestone
March 2014	Final Ethics Approval
July 2014	Modification No.1: Permission to contact organisations on an opportunistic basis as outlined; Permission to ask disability organisations involved in the study about if they have policies or procedures on provisions of training for employees with disability
August 2014	Modification No. 2: Approval for one extra question to be added into the previously approved survey as outlined in the modification request.
November 2014	Modification No. 3: Approval to include an additional research objective as outlined in the modification request. Approval to interview RTO's and TAFE SA staff that teach the Certificate 3 and 4 Disability (total 2 RTO's and 1 TAFE). New interview questions for RTO's and TAFE SA staff approved.
March 2015	Modification No. 4: Approval for participants to be recruited on the basis of staff and employees being employed for a minimum of 6 months
June 2015	Annual Report Approval

Appendix C: Published Article

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**Nature and extent of on-the-job training for employees with an intellectual
disability: A pilot study**

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Abstract

Problems have been identified in the provision of on-the-job training for people with disability, so the aim of this study was to investigate staff knowledge and use of appropriate training strategies, and the perceptions of employees with intellectual disability of the on-the-job training. Three staff and four employees with intellectual disability working in one Australian Disability Enterprise, participated in the study. Questionnaires, interviews and examination of training documentation were utilised to examine the provision of on-the-job training to employees with intellectual disability. Staff reported on their knowledge and use of 15 empirically validated training and support strategies (i.e. Task Analysis, Show and Tell and, Modelling). Of these fifteen strategies, only two were reported to have been used consistently by staff. Employees with intellectual disability reported that they were eager to learn new work skills but were not receiving the necessary training to assist them in learning such skills. The minimal utilisation of available training strategies to teach employees with intellectual disability workplace skills may indicate a lack of knowledge and/or confidence by staff in using the various training strategies. Further research into the provision of training for staff is needed, principally in the area of on-the-job training strategies.

Keywords: training strategies; Australian Disability Enterprise (ADE); supported employee; intellectual disability; on-the-job training; trainers/staff

Nature and extent of on-the-job training for employees with an intellectual disability: A pilot study

Background

In the last decade Australia has undergone a period of sustained economic growth with record low rates of unemployment. In 2012, 82% of working age Australians were employed, however only 52% of working age Australians with disability were employed (Australian Bureau of Statistics (ABS, 2015). Most people with disability want to work (Ali, Schur, & Blanck, 2011) and are productive workers when given access and support (Commonwealth of Australia, 2011). When individuals with intellectual disability do participate in the workforce they typically are underemployed, earn low wages, experience limited career progression and are more likely to encounter discrimination because of uncertainty regarding their productive capacity (Jones, Mavromaras, Sloane, & Wei, 2014).

People with intellectual disability experience difficulties in demonstrating appropriate and relevant work skills. These difficulties may be attributed, in part, to inadequacies in employment training programs and procedures (Inclusion Australia, 2016). The areas where people with intellectual disability may require specific supports include: comprehension of instructions; problem solving; accuracy and fluency of task completion; adapting to varying demands across work task and settings; working independently and in co-operation with others; communication, literacy and numeracy skills; and work-related social skills (Parmenter, 2011).

Training and support can, in part, assist with addressing the lack of relevant work skills. In this study, training is described as the process of being conditioned or taught to do a particular skill or type of behaviour (Mangal & Mangal, 2009). Research on

employment training for people with intellectual disability has demonstrated that individually focused training is effective (Clarke, Lond & Fliess-Hermelin, 1955) and that people with even the most significant disabilities can acquire the necessary work related skills if given relevant and timely training and support (Bellamy, Peterson & Close, 1975). Many strategies have been shown to be effective in enhancing both technical and adaptive behaviour employment skills for people with intellectual disability such as Gold's (1973) 'Try Another Way' approach (Reynolds, Zupanick, & Dombeck, 2011); Positive Behaviour Support that assists with appropriate workplace behaviour (Crites & Howard, 2011; West & Patton, 2010); use of Assistive Technology (Haynes, 2013); and Video Modelling (Buggey & Ogle, 2012), as well as Self-Instructional Strategies (Wehmeyer et al., 2006).

Problems have been identified in the provision of training for people with disability (National Disability Rights Network, 2012). This includes lack of staff knowledge of appropriate training strategies and supports (Test & Wood, 1995). Furthermore, people with disabilities, parents and carers have highlighted the need for more training and skill development (FaHCSIA, 2010). There is however only limited evidence available documenting the nature and extent of the provision of training (Lattimore, Parsons, & Reid, 2006). Hence the current pilot study aimed to develop a survey tool and interview questions to obtain information about; (1) staff knowledge and use of training supports and strategies; (2) types of tasks for which employees received training; and (3) the views and perceptions of employees with intellectual disability about the on-the-job training they receive from disability employment services.

Method

Design

The study used a mixed methods sequential explanatory design in which analysis of quantitative data is followed by collection and analysis of qualitative data (Creswell & Plano Clark, 2011). In using this design, we initially administered a questionnaire to determine staff's familiarity with the 15 identified training supports and strategies. Semi-structured interviews were used to explore staff's use and understanding of the training strategies and supports. Triangulation was gained by interviewing employees with intellectual disability and examining their Individual Training Plans (ITPs).

Flinders University Social and Behavioural Research Ethics Committee approved the study. All employees and staff gave their written consent to participate in this study.

Setting

This study involved one Australian Disability Enterprise (ADE) (formerly known as sheltered workshops) in Adelaide, South Australia, which employs 150 people across four divisions: manufacturing, administration, packaging and computing.

Approximately two-thirds of the employees have a variety of disabilities including: intellectual; physical; neurological; and psychiatric disability. Three staff provided one-on-one training for those with intellectual disability. Other employees (or staff) work in administration, support the employees with disability, or work alongside the employees with disability completing similar tasks.

Participants

Staff.

The three staff, providing direct one-on-one training, had been working in the organisation for a minimum of twelve months. All three agreed to participate in the survey, and two in the interviews. All three staff were male and were employed in full-time positions (38 hours per week) as ‘Training and Support Co-ordinators.’ Staff had nine, 25 and 37 months respective experience in this role and an average of almost four years in the disability field. Two staff participants had a Certificate III in Disability; the other had a Certificate IV in Disability. All reported that they spent the majority of their time providing direct training support to employees with intellectual disability in the areas of manufacturing, administration, packaging and computing. On average, each staff member was responsible for training 33 employees with disability.

Employees with Intellectual Disability.

Employees with intellectual disability were chosen by the ADE’s Employment Services Manager according to the following three criteria: 1. had a primary disability of intellectual disability; 2. worked at the service for a minimum of twelve months; and 3. were assessed (according to the ADE’s funding body) as functioning at a Level 3 or 4. That is, the chosen employees needed support with a core activity either ‘sometimes’ or ‘always.’ Core activities are those falling into the following areas: self-care; mobility; or communication (Australian Institute of Health and Welfare, 2006).

Employees with intellectual disability were provided with an ‘Easy English’ version of the information sheet and they provided informed consent. Four employees with an intellectual disability, consented to participate. They had worked at the organisation for a mean of 10 years (range of four to 14 years); working an average of 20.75 hours per week (range eight to 38 hours per week). Main tasks

undertaken were partial participation in: web design; refurbishing and disassembly of computers; and welding.

Measurement

The questionnaire developed for this study was based upon a review of the work-skills training literature within the area of disability employment (Ford & Ford, 1998; Grossman & Salas, 2011; Iacono, 2010; Metts, 2000). The questionnaire explored whether staff recognised and/or used the strategies in line with recommendations from literature. Fifteen strategies/supports identified are listed with a short description in the questionnaire (see Table 1). Staff were asked to select one of the following options:

- (a) unfamiliar with this strategy;
- (b) recognise the strategy but do not use it;
- (c) use the strategy sometimes; or
- (d) use the strategy regularly; and
- (e) where they had learnt the strategy (i.e. Technical and Further Education (TAFE)¹, Registered Training Organisation (RTO), or on-the-job).

The semi-structured interview included: the positives and challenges of a disability training role; and more detail about the use of the strategies listed in the questionnaire. Examples of how the training strategies had been utilised by staff were explored to ensure staff were not only familiar with the strategy but were also able to verbally demonstrate use of the strategy.

Supported employees allowed access to their ITPs which provided details of the training they had participated in while they were at their current workplace. Employees with intellectual disability were interviewed in their workplace and asked

¹ In Australia TAFEs and RTOs provide a wide range of vocational tertiary education courses.

eight questions regarding the type of tasks and training they had participated in previously, tasks and training they were currently completing, if they enjoyed the tasks they have been involved in, and whether there were any new tasks they would like to learn.

Procedures

Questionnaires were distributed by the ADE's CEO and staff returned them to the researcher in a reply paid envelope. Two staff were then interviewed. Each interview took approximately 60 minutes. ITPs of four supported employees with intellectual disability were examined. The same employees were also interviewed for an average of ten minutes each and could have an advocate present during the interview.

Interview recordings were transcribed verbatim.

Data Analysis

The questionnaire data were analysed using descriptive statistics (Creswell, 2009) to summarise the use of training and support strategies. The staff and supported employee interview transcriptions provided the basis for developing the coding scheme for data analysis. Thematic analysis was applied to staff and employee interview data (Lapadat, 2010). Each transcript was read by the first author and emerging themes were noted and checked by a second researcher.

Results

Staff Questionnaire.

Questionnaire data revealed that staff recognised and had knowledge of 13 of the 15 strategies (87%). Nine of the strategies, Pictures/Storyboards; Task Analysis; Prompts; Fading; Reinforcement/Reward; Modelling; Penalty/Punishments; Positive Behaviour Supports; and Self-Instruction were reported to have not been used by one or more staff.

The only strategy all training staff were unfamiliar with was Video Self Modelling. All staff reported not being taught Self-Instruction during their Certificate in Disability. Staff also reported learning most of the strategies on-the-job and not during tertiary education. Only two strategies were reported to be used regularly by all of the training staff – ‘Show and Tell’ and ‘Individual Training Plans.’

Staff Interviews.

Two main themes emerged from the staff interviews. Firstly, staff reported that, in their view there was a lack of funding to purchase appropriate adaptations to support employees with disability to be involved in a wider variety of jobs or tasks, “there’s no real grant to sort of access [adaptations] anymore” [Staff Interview 1]. Lack of adaptations was reported as a reason for people with disability working on simple tasks that were often boring and repetitious.

The second theme reported was a sense of frustration with the lack of support and understanding from other staff. Trainers felt production Team Leaders prevented workspaces being set out in an organised fashion that supported employees may require,

Because I can’t modify the layout out there because that’s obviously the Team Leaders – it’s sort of what they’re responsible for and things like that. You’ve sort of got what they’ve got to work with and then you have to try and work around that [Staff Interview 2].

Staff wanted Management to be “on the same page” [Staff Interview 2]. That is, staff complained that the focus on production came in the way of training. With one staff reporting they wanted Management to offer more support for the trainers, “I have nobody to bat for me” [Staff Interview 1].

A variety of reasons were provided for not using the strategies. Positive Behaviour Support was seen as being “too difficult to implement” [Staff Interview 2]. The staff member explained that all staff were needed to assist in implementing the strategy and they did not feel this was currently possible. Use of Pictures/Storyboards was not utilised because pictures get damaged in the workplace environment, and iPads had not been purchased by the service to be utilised for the pictures or storyboards. The staff member also reported that in addition to employees with disability rejecting the use of the strategy, parents rejected this strategy as the pictures had a ‘childlike’ connotation. Video Modelling was reported as not being utilised because of: (i) the perceived time and effort it took to make a video; (ii) staff being unfamiliar with the strategy; and (iii) technical problems with the equipment (i.e. flat batteries). Self-Instruction was not used because not all of the employees with disability could use natural speech.

Employees with intellectual disability Individual Training Plans (ITPs).

ITPs of the four interviewed employees with disability were examined. The ITPs examined spanned a maximum of six years (2008-2014) and there were 60 training items listed in total. The range of training items per employee was 13-19 items (average: 15). The training items were divided into four main areas. Thirty-one items (51.7%) were utilised for Production Training (training directly leading to the product completion); 11 (18.3%) training items were utilised for Certificate Training (training provided by RTOs or TAFE); a further 11 (18.3%) items were utilised for Personal Development (training supporting communication skills, team work, behaviour support, recreational activities, social skills, banking, transport and mental health issues); whilst seven (11.7%) were utilised for Legislative Training (mandatory

training, i.e. manual handling). Therefore, just over half of the training was directly related to production.

Employees with intellectual disability Interviews.

All employees with intellectual disability reported that they enjoyed the training they had received, “Yeah, I love it” [Employee Interview 2] and “Yeah, when it’s on a topic that I like” [Employee Interview 3]. However, some had issues with the training they received, “Like a bit more time. The topics weren’t – not broad enough, ...they weren’t properly thought out, the training sessions were too short” [Employee Interview 1].

Employees with intellectual disability also identified at least one different task they would like an opportunity to try/learn that they were not currently receiving training on, such as: web design; welding; disassembly; customer relations; communication; reading; and packaging. Interviewee 1 reported a desire for training in:

More customer relations, how to – my speaking’s a bit off sometimes. I have a disability communication problem. I am multidextrous. If I’m asked for a job I’ll do it the best I can. I can actually learn quite quickly how to do the job.

Interviewee 4 reported wanting to learn “Web design. That I do want to do HTML”, whilst Interviewee 2 stated “I like training more in the lab”.

Discussion

Staff and employees were interviewed and employee’s ITPs were examined to determine the nature and extent of the provision of on-the-job training for supported employees.

All staff involved this study held a minimum Certificate III in Disability and reported familiarity with 13 of the 15 strategies presented. However, only two strategies (Show and Tell and ITPs) were utilised by all staff regularly. Show and

Tell could be considered an ‘intuitive’ training strategy which requires little knowledge, and although ITP’s may not necessarily be considered a direct training strategy, they help focus trainers on the employees training needs, and may be conducted due to their regulatory nature and links to Federal funding (DSS, 2015). There are therefore a large variety of researched training strategies available to support the abilities of employees with disability that are not being utilised. This finding may demonstrate a lack of practice and knowledge by staff in how to engage other training strategies recommended in the literature, and concurs with Molnar and Watts’ (2002, p.4) findings in the general workforce, where trainers “train the only way they know how – show and do”. This could however, be contributing to supported employees lack of skill development in the workplace, as those with disability “require a significant degree of customisation or systematic on-the-job training...’ that Show and Tell alone cannot provide (Australian Federation of Disability Organisations, 2010,p.8).

Trainer’s gave somewhat erroneous reasons during interviews for not utilising particular strategies, suggesting that trainers do not have the necessary knowledge of training strategies. For example, Video Self modelling was reportedly not utilised because of flat batteries in the video camera. Self-Instruction was claimed as ineffective because not all employees with disability could use natural speech despite the object of Self-Instruction being the ability to utilise covert self-talk (Rusch, Morgan, Martin, Riva & Agran, (1985).

While staff purported to be ‘aware’ of the strategies, their knowledge of how to implement the strategies during interviews was less evident. This could be because staff reported receiving a lack of instruction and opportunity to practice utilising the strategies during their Certificate studies. It appears that while staff may know/be

aware of the strategies they may not have necessarily received sufficient instruction about the strategies. This problem of lack of appropriate staff training has long been recognised (Test and Wood, 1995; Grossman & Salas, 2011; Ford & Ford, 1998). Furthermore, for staff to be competent in the strategies they also need opportunities to practice utilising the strategies, otherwise there is a problem whereby trained staff competencies fail to transfer to the workplace (Grossman & Salas, 2011).

Staff interviews highlighted two main frustrations. Firstly, a lack support from other staff and management prioritising production. Management's focus on production (Metts, 2000) and competing fiscal and training dimensions (Spall, McDonald, & Zetlin 2005) have been previously been reported.

The second frustration reported was, lack of money for adaptations to modify tasks for people with disability to be involved in. This echoes Rogan, Banks and Howard's (2000) findings that people with severe disability were inadequately provided for due to insufficient funding and use of assistive technology and Bunch's (2007) findings that trainers in regular workplaces were often powerless to demand sufficient time and resources.

To date there seem to be no studies that examine the tasks on which supported employees receive training. This study found that the majority (51.7%) of the tasks being trained on were related to production tasks, that is, tasks that lead directly to a product being completed. Equal second were Personal Development and Certificate Training, and lastly Legislative Training. Personal Development items included: hygiene, health, interpersonal skills, handwriting and transport. This highlights that disability employment staff are providing a much more holistic service than just direct vocational support but this service may be at the expense of training directly aimed at learning new workplace tasks. All supported employees interviewed identified tasks

they would like to learn but this is not necessarily being addressed by staff (FaHCSIA, 2012).

Conclusion

Employees with intellectual disability are requesting and require more systematic training than what is being provided. There is however an array of issues that may be hampering the provision of training. Firstly, vocational trainers may not have the necessary knowledge and skills of the range of training strategies. Secondly, vocational trainers lack management assistance and the resources to provide necessary supports for employees with disability. Lastly, time for training is pressured by the priority of production and providing a holistic service to employees with intellectual disability. While outcomes of this study cannot be considered representative of the disability employment field and results cannot be generalised because of the small sample size, for the most part these findings are validated by previous studies in disability accommodation, employment and trainers in the mainstream workforce. Recommendations include the management of disability employment services to increase the provision of training for both staff and employees with intellectual disability. An area for further research is to identify what information is provided in the Certificates of Disability Studies.

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Table 1

Training strategies and their description

<i>Training Strategy</i>	<i>Description of Training Strategy</i>
Show and tell	Demonstrate the task and explain as you demonstrate (Browder et al., 2012)
Task Analysis	Listing a task into its smaller sequential steps (Lee, Muccio, & Osborne, 2009)
Prompts/cues	Physical, gestural or verbal reminders (Robinson, & Smith, 2010)
Fading	As the skill is learnt, the prompt or cue is faded to a less obvious prompt (Lancioni et al., 1999)
Reinforcement/reward	Providing something the employee with a disability enjoys other than their usual pay i.e. praise (Saunders, McEntee, & Saunders, 2005)
Modelling	Providing a demonstration of the required skill, with no verbal explanation (Riches, 1996)
Match-to-sample	Using a correct example of a completed item as an example of how the task should be completed (Dixon, 1981)
Penalty/Punishment	Offering an undesirable consequence for a behaviour (Guitart-Masip et al, 2012)
Positive Behaviour Support	Using methods to change an unwanted behaviour (Crites & Howard, 2011; West, & Patton, 2010)
Adaptations	Providing a modification, technology or jig to aid the learner to be able to complete a task (Haynes, 2013)
Self-instruction	Teaching employee with disability to use self-talk to complete a task (Smith, Shepley, Alexander, & Ayres, 2015; Wehmeyer et al., 2006)
Pictures/storyboards	Pictures to demonstrate the correct sequence of a task (Martin, Mithaug, & Burger, 1990)
Data Collection	Collecting information on details of work the employee completes (Storey & Miner, 2011)

Individual Training Plans

A record of what the learner would like to learn or is learning
(Greasley, 1995)

Video modelling

Video recording correct behaviour then learner watches the video
on numerous occasions (Buggey & Ogle, 2012)

Appendix D: Pilot Study Questionnaire

Staff Survey

Part A

1. Your Position/Title:.....
2. Gender: Male Female
3. Hours of work: Full-time Part-time Casual
4. Years in current position
5. Years' experience in disability field
6. Do you work in: Open employment ADE
7. What type of disabilities do the employees you work with have (tick as many as is appropriate):
 Intellectual Physical Psychiatric Neurological
8. Do you provide direct training support for people with disabilities?
 Yes
 No (If NO, do not continue answering this survey. Thank you for your time however this study is collecting information from direct employment support personnel. Please return this form in the reply paid envelope.)

Part B

1. Qualifications
 - (a) Highest level of completed education:
 - Primary School
 - Some High School
 - Completed High School
 - TAFE
 - Professional Diploma
 - Postgraduate

2. Hours of work

How many hours a week are you employed for?

3. Time spent on tasks

Please approximate the % of time you would spend on the following tasks in a typical week:

(a) Providing direct training support to employees with a disability

(b) Other duties (i.e. meetings, paperwork etc)

4. Do you train people with disabilities for (tick how many is appropriate):

Acquisition (learning a new skill)

Generalisation (teach the same skill across different settings)

Maintenance (ensuring the skill has maintained over time)

Variability (teaching one person a variety of tasks)

Fluency (accuracy and speed)

5. Employees with disability

Which level of disability would the majority of the employees you train be classified as having (choose one)

Mild disability (has no difficulty with self-care, mobility or communication but uses aids or equipment)

Moderate disability (does not need assistance from another person but has difficulty with self-care, mobility or communication)

6. Types of tasks

What category of tasks/jobs do you train employees in? (choose as many as is applicable)

Retail

Packaging

Manufacturing

Administration

Cleaning

Gardening

Other (please specify)

Q7 on next page...

7. Training Strategies

Following is a list of ‘training strategies.’ Some of the terms may be different to what you are used to using. If you read the example but call the strategy by another name please write the name you know it by in the description box and answer the question accordingly. Tick the appropriate box:

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly	I learnt this strategy from: .TAFE .On-the-job (co-worker or taught self) .In house training (training provided by employer in your workplace) .University .RTO (Registered Training Organisation) .Other (Please specify)
EXAMPLE			√		RTO
Task Analysis (listing a task into its smaller sequential steps)					
Prompts/cues (physical, gestural or verbal reminders)					
Fading (as the skill is learnt, the prompt or cue is faded to a less obvious prompt)					

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly	I learnt this strategy from: .TAFE .On-the-job (co-worker or taught self) .In house training (training provided by employer in your workplace) .University .RTO (Registered Training Organisation) .Other (Please specify)
Reinforcement/reward (providing something the employee with a disability enjoys other than their usual pay i.e. praise)					
Show and tell (demonstrate the task and explain as you demonstrate)					
Modelling (providing a demonstration of the required skill, with no verbal explanation)					
Match-to-sample (using a correct example of a completed item as an example of how the task should be completed)					
Penalty/Punishment (offering a undesirable consequence for a behaviour)					
Positive Behaviour Support (using methods to change an unwanted behaviour)					

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly	I learnt this strategy from: .TAFE .On-the-job (co-worker or taught self) .In house training (training provided by employer in your workplace) .University .RTO (Registered Training Organisation) .Other (Please specify)
Adaptation (providing a modification, technology or jig to aid the learner to be able to complete a task)					
Self-instruction (teaching employee with disability to use self-talk to complete a task)					
Pictures/story boards (pictures to demonstrate the correct sequence of a task)					
Data Collection (collecting information on details of work the employee completes)					
Individual Training Plans (a record of what the learner would like to learn or is learning)					
Video modelling (video recording correct behaviour then learner watches the video on numerous occasions)					

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly	I learnt this strategy from: .TAFE .On-the-job (co-worker or taught self) .In house training (training provided by employer in your workplace) .University .RTO (Registered Training Organisation) .Other (Please specify)
<i>Only Open employment staff answer:</i> Natural Supports (training non-disabled co-workers in the employees workplace to provide support and training to the person with a disability)					
<i>Only Open employment staff answer:</i> Job Carving (finding tasks that an employee with a disability can complete from other jobs)					

8. Do you use any other training strategies not listed in Q7?
 No
 Yes please specify

9. (a) Do you believe that the training you received in these strategies was adequate?
 Yes
 No
(b) Why or Why not?
(c) Are you provided with opportunities for ongoing training in the strategies listed in Q7?
 Yes
 No

10. Other than work tasks, do you train employees with disabilities on any of the following (tick only those that are appropriate):
 Social Skills
 Self Help Skills
 Other

11. Future face-to-face interview
Would you be prepared to be interviewed? The interview will required approximately an hour of your time and will be a series of questions in relation to on-the-job training you provide to people with disabilities.
 No
 Yes please provide your name and contact details.....

Please return this survey in the enclosed reply paid envelope.
June Alexander
Disability and Community Inclusion Department
Flinders University
GPO Box 2100
Adelaide SA 5001

Staff Interview

1. Tell me about your job.
2. What do you enjoy about your role?
3. What are the challenges of your role?
4. What skills, knowledge and competencies do you feel are important for you to have in your role as an employment trainer?
5. What do you consider your role involves?
6. What support does your Supervisor/Manager offer you in your role?
7. What support would you like to receive?
8. Do you feel Government rules/demands affect your role? If so, in what way(s)?
9. Ask for examples for the training strategies that they indicated in the survey they used. Why do you use these strategies? What stops you from using other strategies?
10. It typically takes how long to train an employee with a disability on one task (hours, days, weeks etc)?
11. How much time would you spend on training for Acquisition, Fluency, Generalisation, Maintenance & Variability? How much time would you ideally want? If less than you want, what prevents you from doing this?
12. How do you assess a trainee's training needs?
13. Is there any training you would like to receive that you believe would benefit you in your current role? How might those training needs best be met?
14. Of the training strategies you "Know this strategy but do not use it" why have you decided not to use it?
15. If you use 'other' strategies are they effective?
16. How much training do you give to the trainee's co-workers or supervisors to enable them to help the trainee?
17. Do you feel your role is valued, recognised or rewarded?
18. What are your expectations for employees with disabilities? What do you consider are achievable employment goals for the majority of employees with disabilities? (give examples of tasks you think most employees with disabilities could complete and those that they may not)

19. Can you recall a time/s when an employee with a disability has exceeded your expectations?
20. How do you prioritise your daily tasks?

Appendix E: Information Pack

Appendix D1: Employer Permission Request Letter



Disability & Community Inclusion

GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3902
Fax: 08 8201 3646
june.alexander@flinders.edu.au
www.flinders.edu.au
CRICOS Provider No. 00114A



EMPLOYER PERMISSION REQUEST LETTER

Training in Australian Disability Employment Services

Researcher: June Alexander

Supervisor: Dr Julie Clark

**I give permission for staff and employees with disability to participate in the study
'Training in Australian Disability Employment Services'**

Signed _____ / /2014

Name _____

Position _____

Organisation _____

*PLEASE RETURN THIS FORM IN THE REPLY PAID ENVELOPE TO: June Alexander,
Disability & Community Inclusion, Flinders University, GPO Box 2100, Adelaide SA 5001
or email june.alexander@flinders.edu.au*

For further information contact June on 8201 3902 or june.alexander@flinders.edu.au

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

Appendix E2: Information Sheet (for staff)



Disability & Community Inclusion

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CRICOS Provider No. 00114A



Information Sheet (for Staff)

Training in Australian Disability Employment Services

Investigator:

Ms June Alexander

Supervisors:

Dr Julie Clark 8201 3476

Dr Pammi Raghavendra 8201 3426

Dr Jerry Ford Disability & Community Inclusion GPO Box 2100 Adelaide SA 5001

My study aims to present an overview of the state of on-the-job training provided to people with disabilities receiving services from both ADE's and Open employment organisations.

I will be requesting staff (vocational trainers) that provide on-the-job training to employees with a disability complete an 18 question survey which should take approximately 20 minutes to complete. Staff will be able to indicate if they are also willing to participate in a face-to-face interview that will take approximately 60 minutes. Staff will need to:

- provide one-on-one direct training to employees with disabilities
- be employed either part time or full time and,
- been employed in their role for a minimum of 12 months

As staff that provide training to employees with disability your role is one of important significance. Your perceptions and views of your role are sought to gain valuable knowledge of training that is provided to employees with disabilities.

- The discussions will be confidential and any recordings of interviews will only be available to the researchers involved in this study.
- All names will be removed and identifying comments will be coded and only available to the study team. The annotated transcript will be kept in a designated secure place within the University for 5 years, after which all the data will be destroyed.
- You will be able to request a copy of the transcript (please indicate on the consent form) of the interview and make changes if you feel necessary.

Participation is purely voluntary and anonymous. You are able to remove yourself or your data at any time before, during or up to 28 days after the interview has been conducted. *The return of the survey will be considered that you have consented to be part of the study.*

You can complete the survey at Survey Monkey (an email with the link will be sent to you) or request a hard copy of the survey from june.alexander@flinders.edu.au

Note: Research outcomes may indirectly support efforts to improve training employment outcomes however the researcher cannot directly assist participants or change their workplaces.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved by completing the enclosed survey.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

Appendix E3: Letter of Introduction



School of Education

GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3476
Fax: 08 8201 3184
Julie.Clark@flinders.edu.au
Website: www.flinders.edu.au/education

LETTER OF INTRODUCTION

Dear Sir/Madam,

This letter is to introduce June Alexander who is a PhD student in the School of Education at Flinders University. She will produce her student card, which carries a photograph, as proof of identity.

She is undertaking research leading to the production of a thesis or other publications on the subject of 'Training in Australian Disability Employment Services' and is particularly interested in establishing the type of training strategies being utilised and how vocational trainers and supported employees perceive the training.

June would be most grateful if you would volunteer to assist in this project by encouraging staff and employees with an intellectual disability to be involved. Staff are asked to complete a questionnaire and both staff and employees with an intellectual disability are asked to grant an interview which covers certain aspects of this topic. No more than one hour on one occasion for the interview would be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications. Participants are, of course, entirely free to discontinue participation at any time or to decline to answer particular questions.

If you consent to your organisation being involved please complete the attached 'Employer Permission Request Letter' and return via replied paid envelope or email. June will then send you Information Sheets for your training staff and employees with an intellectual disability so they can choose to be involved in the study.

Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on 8201 3476, fax 8201 3184 or e-mail Julie.Clark@flinders.edu.au

Thank you for your attention and assistance.

Yours sincerely

Associate Professor Julie Clark
Associate Dean Teaching and Learning
School of Education

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

inspiring
achievement

Appendix E4: Consent Form



Training in Australian Disability Employment Services

Researcher: June Alexander

Supervisor: Dr Julie Clark

I understand that:

- What I talk about is confidential and will not be available to my employer.
- What I talk about will be only be seen by researchers on this study.
- If the results of this study are published in a book or journal my name and anything that can identify me will be removed.
- Audio taken during the interview will be transcribed without names.
- Written information without my name will be kept for 5 years in a safe place then destroyed. The audio recording will be destroyed at the same time.
- I can change my mind during the interview and not continue.
- I can ask for a copy of the transcript of the interview and can make changes to my comments or withdraw my consent up to 28 days after the interview.
- If there is something I do not like then I can make a complaint (see below).

I consent to be a participant in this study Yes No

I consent to be audio taped during the interviews Yes No

I would like a copy of this interview Yes No

Name of Participant _____

Signed _____ / /2014

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

I have provided information about the research and believe he/she understands what is involved. Researcher's signature _____ / /2014

Appendix E5: Information Sheet (for TAFE & RTO)



Disability & Community Inclusion

GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3902
Fax: 08 8201 3646
june.alexander@flinders.edu.au
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CRICOS Provider No. 00114A



Information Sheet

Training in Australian Disability Employment Services

Investigator:

Ms June Alexander

Supervisors:

Dr Julie Clark 8201 3476

Dr Pammi Raghavendra 8201 3426

Dr Jerry Ford Disability & Community Inclusion GPO Box 2100 Adelaide SA 5001

My study aims to present an overview of the state of on-the-job training provided to people with disabilities receiving services from both ADE's and Open employment organisations.

I will be requesting to interview training staff that provide training and education in the Certificate III & IV and Diploma in Disability Studies. The face-to-face interview will take approximately 45 minutes.

As teaching staff that provide training to staff in the disability sector your role is one of important significance. Information on what training you provide is sought to gain valuable knowledge of training that is provided to employees with disabilities.

- The discussions will be confidential and any recordings of interviews will only be available to the researchers involved in this study.
- All names will be removed and identifying comments will be coded and only available to the study team. The annotated transcript will be kept in a designated secure space within the University for 5 years, after which all the data will be destroyed.
- You will be able to request a copy of the transcript of the interview and make changes if you feel necessary.

Participation is purely voluntary and anonymous. You are able to remove yourself or your data at any time before, during or up to 28 days after the interview has been conducted.

Note: Research outcomes may indirectly support efforts to improve training employment outcomes however the researcher cannot directly assist participants or change their workplaces.

Thank you for taking the time to read this information sheet and we hope that you will accept our invitation to be involved by contacting me at: june.alexander@flinders.edu.au

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

Appendix F: Plain English Forms

Appendix F1: Consent Form (Plain English)



Training in Australian Disability Employment Services

Researcher: June Alexander

Supervisor: Dr Julie Clark

I understand that:

- What I talk about is private.
- What I talk about and my training records will be only seen by people working on this study.
- If the results of this study are written in a book or magazine my name and anything that can identify me will be taken out.
- The answers I give will be written down without my name
- The written answers without my name will be kept for 5 years in a safe place then destroyed. The audio recording will be destroyed at the same time.
- I can change my mind anytime during the interview and stop answering the questions.
- I can make changes to what I have said and decide to not be part of the study up to 28 days after the interview.
- If there is something I do not like then I can make a complaint (see below)



This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

I consent to be a participant in this study Yes No

I consent to be audio taped during the interviews Yes No

I would like a copy of the interview Yes No

I consent to my training records been seen Yes No

Name of Participant _____

Signed _____ / /2014

Parent/guardian (if applicable) _____ / /2014

I have provided information about the research and believe he/she understands what is involved. Researcher's signature _____ / /2014

Appendix F2: Letter of Introduction (Plain English)



LETTER OF INTRODUCTION (Plain English)

Disability & Community Inclusion
GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3476
Fax: 08 8201 3184
Julie.Clark@flinders.edu.au
Website: www.flinders.edu.au/education

Dear Sir/Madam/Name

This letter is to introduce June Alexander who is a PhD student in the School of Education at Flinders University. She will produce her student card, which carries a photograph, as proof of identity.

She is undertaking research leading to the production of a thesis or other publications on the subject of 'Training in Australian Disability Employment Services.' She is interested in what you think of the training you receive.

June would be most grateful if you would volunteer to assist in this project, by granting an interview. No more than one hour (with breaks) on one or two occasions for the interview would be required.

Be assured that any information provided will be treated in the strictest confidence and none of the participants will be individually identifiable in the resulting thesis, report or other publications.

You are, of course, entirely free to discontinue your participation at any time or to decline to answer particular questions.

Since she intends to make a tape recording of the interview, she will seek your consent, on the attached form, to record the interview, on condition that your name or identity is not revealed, the recording will not be made available to any other person.

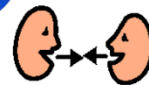
Any enquiries you may have concerning this project should be directed to me at the address given above or by telephone on 8201 3476, fax 8201 3184 or e-mail Julie.Clark@flinders.edu.au

Thank you for your attention and assistance.

Yours sincerely

Associate Professor Julie Clark
Associate Dean Teaching and Learning
School of Education

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au



inspiring
achievement

Appendix F3: Information Sheet (Plain English)



Information Sheet (Plain English)

Disability & Community Inclusion

GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3902
Fax: 08 8201 3646
june.alexander@flinders.edu.au
www.flinders.edu.au
CRICOS Provider No. 00114A

A Study into Training in Australian Disability Employment Services

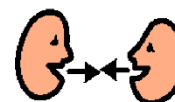
Hi, my name is June Alexander (here's a photo of me). I am a student doing a study that has the OK from Flinders University.



I would like to speak to you about your job and the training you receive. I would also like to have a look at your training records (sometimes this is called an ITP or EDP or EAP).



If you are happy to talk to me, I will come to where you work and ask you some questions. I will use a tape recorder to record my questions and your answers. It should take about 1 hour of your time. During that hour we can take breaks or the interview can be completed over several days.



What you tell me is private. It is just between you and me. I will not tell your Supervisor, boss or anyone else what you have said. Sometimes the things I have found out might get written into a book or magazine. If this happens, I will take your name out so that your information remains private.



If you don't want to help with this project, that's OK.



If you change your mind after starting to help me but don't want to finish that is OK too. If you want to stop don't be frightened to say so.



This study may help people but I will not be able to offer you individual help at work.

If you have any questions please call me on (08) 8201 3902 and I will be happy to answer them.



This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

Appendix G: Hardcopy Questionnaire



Disability & Community Inclusion

GPO Box 2100
Adelaide SA 5001
Tel: 08 8201 3902
Fax: 08 8201 3646
june.alexander@flinders.edu.au
www.flinders.edu.au
CRICOS Provider No. 00114A

Training in Australian Disability Employment Services

Researcher: June Alexander

Supervisor: Dr Julie Clark

This survey is part of the “Training in Australian Disability Employment Services” study. The study aims to present an overview of the state of on-the-job training provided to people with disabilities receiving services from either ADE’s or Open employment organisations. Participation is purely voluntary and anonymous.

The return of the completed survey will be considered that you have consented to be part of the study.

The survey questions are multiple choice and short answer. It is anticipated it will take approximately 10-20 minutes to complete.

Thanking you in anticipation of your participation.

This research project has been approved by the Flinders University Social and Behavioural Research Ethics Committee (Project number 6323). For more information regarding ethical approval of the project the Executive Officer of the Committee can be contacted by telephone on 8201 3116, by fax on 8201 2035 or by email human.researchethics@flinders.edu.au

SURVEY BEGINS HERE ↓

1. Do you provide direct training support to employees with a disability (training on-the-job skills at the job site with the employee with a disability)?

- Yes. Providing training is the main part of my overall job role
- Yes. Providing training is a moderate part of my overall job role
- Yes. Providing training is a small part of my overall job role
- No. Do not continue answering this survey. Thank you for your time however this study is collecting information from staff that provide direct on-the-job training

2. Sex:

- Female
- Male

3. Age:

- 18-30
- 30-40
- 40-50
- 50-60
- 60+

4. Part B

Do you work in:

- Open Employment
- ADE

5. In which employment service do you work? (Reminder: The information you provide in this survey will be kept confidential)

.....

6. Your position/title:

.....

7. Do you work:

- Full time
- Part time
- Casual

8. Years in current position:

.....

9. Years' experience in the disability field:

.....

10. Have you had other training roles previously? (tick as many as is appropriate)

- Yes within the disability sector
- Yes in another area other than the disability sector
- No

11. What type of disabilities do the employees you work with have? (tick as many as is appropriate)

- Intellectual
- Physical
- Psychiatric
- Neurological
- Sensory

12. Employees with disability

Which level of disability would the majority of the employees you train be classified as having? (choose one)

- Mild disability (has no difficulty with self-care, mobility or communication but uses aids or equipment)
- Moderate disability (does not need assistance from another person but has difficulty with self-care, mobility or communication)
- Severe disability (sometimes needs assistance from another person with self-care, mobility or communication)
- Profound disability (always needs assistance from another person with self-care, mobility or communication)

13. Types of tasks

What category of tasks/jobs do you train employees in? (choose as many as is applicable)

- Retail
- Packaging
- Manufacturing
- Administration
- Cleaning
- Gardening
- Other (please specify)

14. How many people with disabilities do you provide training support to?

.....

15. Part C

Qualifications: Indicate your highest level of education:

- Primary School
- Some High School
- Completed Year 12
- TAFE
- RTO (Registered Training Organisation)
- Professional Diploma
- Undergraduate Degree
- Post Graduate Degree
- Other (please specify)

16. Indicate ALL formal qualifications:

- Train the Trainer/Training & Assessment IV
- Disability/Aging
- Other (please specify)

17. Are you undertaking any studies currently?

- No
- Yes (please specify)

18. Which of the following strategies do you use? (Tick which is applicable):

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly
Task Analysis (listing a task into its smaller sequential steps)				
Prompts/cues (physical, gestural or verbal reminders)				
Fading (as the skill is learnt, the prompt or cue is faded to a less obvious prompt)				
Reinforcement/reward (providing something the employee with a disability enjoys other than their usual pay i.e. praise)				
Show and tell (demonstrate the task and explain as you demonstrate)				
Modelling (providing a demonstration of the required skill, with no verbal explanation)				
Shaping (rewarding close approximations of required behaviour)				
Match-to-sample (using a correct example of a completed item as an example of how the task should be completed)				
Penalty/Punishment (offering a undesirable consequence for a behaviour)				
Positive Behaviour Support (using methods to change an unwanted behaviour)				
Adaptation (providing a modification, technology or jig to aid the learner to be able to complete a task)				
Self-instruction (teaching employee with disability to use self-talk to complete a task)				
Pictures/story boards (pictures to demonstrate the correct sequence of a task)				
Data Collection (collecting information on details of work the employee completes)				
Individual Training Plans (a record of what the learner would like to learn or is learning)				
Video modelling (video recording correct behaviour then learner watches the video on numerous occasions)				
Natural Supports (training co-workers in the employees workplace to provide support and training to the person with a disability)				
Job Matching (employees interests and employer's needs are matched)				
Job Carving (finding tasks that an employee with a disability can complete from a larger task or job)				

20. I learnt about these strategies: (choose all that is applicable)

- TAFE
- RTO
- University
- Training provided In-house (on-the-job)
- Other (please specify)

21. The training you received on these strategies was:

- High Quality
- Average
- Low Quality

22. During your training of these strategies were you offered opportunities to practice these strategies?

- Yes
- No
- Unsure

23. Are you provided with opportunities for ongoing training in these strategies?

- Yes
- No
- Unsure

24. Other than work tasks, do you train employees with disabilities on any of the following (tick all that are applicable):

- Social Skills
- Self Help Skills (e.g. toileting, assistance with eating)
- Communication Skills
- Supportive Skills (e.g. use transport, tell time, financial)
- Other (please specify)

25. Time spent on tasks

Which of the tasks would you spend most time on in a typical week?

Order 1 - 5 (1 = MOST time spent, 5 = LEAST time spent). Read all options before answering.

Note: each row must have a different number from 1 to 5

Direct Assistance to employees with a disability (social skills, self-help skills based, communication skills, supportive skills)	1	2	3	4	5
Direct training support to employees with a disability (training on job skills at the job site with the employee with a disability)	1	2	3	4	5
Direct training for employees on Disability Standards, OHS&W, Polices etc	1	2	3	4	5
Indirect training (e.g. case notes, writing task analysis)	1	2	3	4	5
Other duties (i.e. meetings, admin, advocacy, liaison with other agencies etc)	1	2	3	4	5

26. Do you spend more time training skills for: (choose one)

- New or work experience employees
- Long term employees

27. Of the time spent on direct training, which of these tasks would you spend most time on in a typical week?

Order 1 - 5 (1 = MOST time spent, 5 = LEAST time spent). Read all options before answering.

Note: each row must have a different number from 1 to 5

Acquisition (teaching a new skill to an employee with a disability)	1	2	3	4	5
Generalisation (teaching the same skill across different settings)	1	2	3	4	5
Maintenance (ensuring the skill has maintained over time)	1	2	3	4	5
Variability (teaching one person a variety of tasks)	1	2	3	4	5
Fluency (teaching to improve accuracy and speed)	1	2	3	4	5

28. In terms of providing direct on-the-job training support to employees with a disability (this does not include paperwork, administration duties or direct personal assistance); in your opinion do you feel you spend:

- Not enough time
- Right amount of time
- Too much time

29. What would assist you to increase the time spent on direct on-the-job training?

.....

.....

.....

.....

30. What is your perception of the provision of on-the-job training delivered to supported employees in the disability employment field in general?

- Excellent
- Good
- Satisfactory
- Needs Improvement
- Other (please specify)

31. Would you be prepared to be interviewed? The interview would take between 60-90 minutes. The researcher would visit you in your work place or another place nominated by you.

- No. THANK YOU for answering the survey and your participation in this study!
- Yes. Please provide a contact email, phone number etc so that the researcher can contact you.

.....

.....

Please return the survey in the attached reply paid envelope. Thank you!

Appendix H: Staff Interview Questions

1. Tell me about your job.
2. What do you enjoy about your role?
3. What are the challenges of your role?
4. What skills, knowledge and competencies do you feel are important for you to have in your role as an employment trainer?
5. What do you consider your role involves?
6. What support does your Supervisor/Manager offer you in your role?
7. What support would you like to receive?
8. Do you feel Government rules/demands affect your role? If so, in what way(s)?
9. Ask for examples for the training strategies that they indicated in the survey they used. Why do you use these strategies? What stops you from using other strategies?
10. It typically takes how long to train an employee with a disability on one task (hours, days, weeks etc)?
11. How much time would you spend on training for Acquisition, Fluency, Generalisation, Maintenance & Variability? How much time would you ideally want? If less than you want, what prevents you from doing this?
12. How do you assess a trainee's training needs?
13. Is there any training you would like to receive that you believe would benefit you in your current role? How might those training needs best be met?
14. Of the training strategies you "Know this strategy but do not use it" why have you decided not to use it?
15. If you use 'other' strategies are they effective?

16. How much training do you give to the trainee's co-workers or supervisors to enable them to help the trainee?
17. Do you feel your role is valued, recognised or rewarded?
18. What are your expectations for employees with disabilities? What do you consider are achievable employment goals for the majority of employees with disabilities? (give examples of tasks you think most employees with disabilities could complete and those that they may not)
19. Can you recall a time/s when an employee with a disability has exceeded your expectations?
20. How do you prioritise your daily tasks?

***Removed after pilot study**

Appendix I: Supported Employees Interview Questions

- A. What jobs do you do now?
- B. What jobs do you enjoy the most?
- C. What jobs do you like the least?
- D. What jobs have you done?
- E. Are there any jobs would you like to try?
- F. Have trainers used pictures or other methods to help you learn something new?
- G. What training and education have you had?
- H. What and who helps you to do your job?
- I. Access to participants Training Records will be sourced.

Appendix J: Online Questionnaire

Training in Disability Employment Services

Training in Australian Disability Employment Services Survey

This survey is part of the "Training in Australian Disability Employment Services" study. The study aims to present an overview of the state of on-the-job training provided to people with disabilities receiving services from either ADE's or Open employment organisations. Participation is purely voluntary and anonymous.

The return of the completed survey will be considered that you have consented to be part of the study.

The survey questions are multiple choice and short answer. It is anticipated it will take approximately 10-20 minutes to complete.

Thanking you in anticipation of your participation.

***1. Do you provide direct training support to employees with a disability (training on-the-job skills at the job site with the employee with a disability)?**

- Yes. Providing training is the main part of my overall job role
- Yes. Providing training is a moderate part of my overall job role
- Yes. Providing training is a small part of my overall job role
- No. Do not continue answering this survey. Thank you for your time however this study is collecting information from staff that provide direct on-the-job training

Training in Disability Employment Services

About You

***2. Sex:**

- Female
 Male

***3. Age:**

- 18-30
 30-40
 40-50
 50-60
 60+

***4. Part B**

Do you work in:

- Open Employment
 ADE

***5. What is the name of the organisation you work in? (Reminder: The information you provide in this survey will be kept confidential)**

***6. Your position/title:**

***7. Do you work:**

- Full time
 Part time
 Casual

***8. Years in current position:**

***9. Years experience in the disability field:**

Training in Disability Employment Services

***10. Have you had other training roles previously? (tick as many as is appropriate)**

- Yes within the disability sector
- Yes in another area other than the disability sector
- No

Training in Disability Employment Services

Supported Employees

*** 11. What type of disabilities do the employees you work with have? (tick as many as is appropriate)**

- Intellectual
- Physical
- Psychiatric
- Neurological
- Sensory

*** 12. Employees with disability**

Which level of disability would the majority of the employees you train be classified as having? (choose one)

- Mild disability (has no difficulty with self-care, mobility or communication but uses aids or equipment)
- Moderate disability (does not need assistance from another person but has difficulty with self-care, mobility or communication)
- Severe disability (sometimes needs assistance from another person with self-care, mobility or communication)
- Profound disability (always needs assistance from another person with self-care, mobility or communication)

*** 13. Types of tasks**

What category of tasks/jobs do you train employees in? (choose as many as is applicable)

- Retail
- Packaging
- Manufacturing
- Administration
- Cleaning
- Gardening
- Other (please specify)

*** 14. How many people with disabilities do you provide training support to?**

Training in Disability Employment Services

About your Education

*15. Part C

Qualifications: Indicate your highest level of education:

- Primary School
- Some High School
- Completed Year 12
- TAFE
- RTO (Registered Training Organisation)
- Professional Diploma
- Undergraduate Degree
- Post Graduate Degree
- Other (please specify)

*16. Indicate ALL formal qualifications:

- Train the Trainer/Training & Assessment IV
- Disability/Aging
- Other (please specify)

*17. Are you undertaking any studies currently?

- No
- Yes (please specify)

Training in Disability Employment Services

Training Strategies

* 18. Which of the following strategies do you use?

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly
Task Analysis (listing a task into its smaller sequential steps)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prompts/cues (physical, gestural or verbal reminders)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fading (as the skill is learnt, the prompt or cue is faded to a less obvious prompt)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reinforcement/reward (providing something the employee with a disability enjoys other than their usual pay i.e. praise)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Show and tell (demonstrate the task and explain as you demonstrate)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Modelling (providing a demonstration of the required skill, with no verbal explanation)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Shaping (rewarding close approximations of required behaviour)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Match-to-sample (using a correct example of a completed item as an example of how the task should be completed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Penalty/Punishment (offering a undesirable consequence for a behaviour)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive Behaviour Support (using methods to change an unwanted behaviour)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Training in Disability Employment Services

* 19. Previous Question continued - Which of the following strategies do you use?

	I am unfamiliar with this strategy	I recognise this strategy but do not use it	I use this strategy sometimes	I use this strategy regularly
Adaptation (providing a modification, technology or jig to aid the learner to be able to complete a task)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-instruction (teaching employee with disability to use self-talk to complete a task)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Pictures/story boards (pictures to demonstrate the correct sequence of a task)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Data Collection (collecting information on details of work the employee completes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Individual Training Plans (a record of what the learner would like to learn or is learning)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Video modelling (video recording correct behaviour then learner watches the video on numerous occasions)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Natural Supports (training co-workers in the employees workplace to provide support and training to the person with a disability)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job Matching (employees interests and employer's needs are matched)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Job Carving (finding tasks that an employee with a disability can complete from a larger task or job)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Training in Disability Employment Services

Training Strategies (contd)

***20. I learnt about these strategies: (choose all that is applicable)**

- TAFE
- RTO
- University
- Training provided In-house (on-the-job)
- Other (please specify)

***21. The training you received on these strategies was:**

- High Quality
- Average
- Low Quality

***22. During your training of these strategies were you offered opportunities to practice these strategies?**

- Yes
- No
- Unsure

***23. Are you provided with opportunities for ongoing training in these strategies?**

- Yes
- No
- Unsure

Training in Disability Employment Services

***24. Other than work tasks, do you train employees with disabilities on any of the following (tick all that are applicable):**

- Social Skills
- Self Help Skills (e.g. toileting, assistance with eating)
- Communication Skills
- Supportive Skills (e.g. use transport, tell time, financial)
- Other (please specify)

***25. Time spent on tasks**

Which of the tasks would you spend most time on in a typical week?

Order 1 - 5 (1 = MOST time spent, 5 = LEAST time spent). Read all options before answering.

Note: each row must have a different number from 1 to 5

	1	2	3	4	5
Direct Assistance to employees with a disability (social skills, self-help skills based, communication skills, supportive skills)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct training support to employees with a disability (training on job skills at the job site with the employee with a disability)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Direct training for employees on Disability Standards, OHS&W, Polices etc	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Indirect training (e.g. case notes, writing task analysis)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other duties (i.e. meetings, admin, advocacy, liaison with other agencies etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

***26. Do you spend more time training skills for: (choose one)**

- New or work experience employees
- Long term employees

Training in Disability Employment Services

The survey is almost complete

***27. Of the time spent on direct training, which of these tasks would you spend most time on in a typical week?**

Order 1 - 5 (1 = MOST time spent, 5 = LEAST time spent). Read all options before answering.

Note each row must have a different number from 1 to 5.

	1	2	3	4	5
Acquisition (teaching a new skill to an employee with a disability)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generalisation (teaching the same skill across different settings)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintenance (ensuring the skill has maintained over time)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Variability (teaching one person a variety of tasks)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fluency (teaching to improve accuracy and speed)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

***28. In terms of providing direct on-the-job training support to employees with a disability (this does not include paperwork, administration duties or direct personal assistance), in your opinion do you feel you spend:**

- Not enough time
 Right amount of time
 Too much time

***29. What would assist you to increase the time spent on direct on-the-job training?**

Training in Disability Employment Services

These are the final Questions

30. What is your perception of the provision of on-the-job training delivered to supported employees in the disability employment field in general?

- Excellent
- Good
- Satisfactory
- Needs Improvement
- Other (please specify)

***31. Would you be prepared to be interviewed? The interview would take between 60-90 minutes. The researcher would visit you in your work place or another place nominated by you.**

- No. THANK YOU for answering the survey and your participation in this study!
- Yes. Please provide a name, contact email, phone number etc so that the researcher can contact you.

Appendix K: TAFE/RTO lecturer interview questions

- Which of the following 19 strategies do you provide instruction on? Explain your method of instruction/teaching of these strategies
- In which courses and subjects are the strategies included?
- How are the strategies taught?
- How do you know students have learnt the strategies? (prompt if needed: Do students get opportunity to practise the strategies?)
- What assessment tasks are set?
- What are your qualifications?
- What is your experience in using these strategies when training people with intellectual disability?
- Where did you learn these strategies?