

Breaking down the barriers: strategies to assist apprentices with a learning disability

SANDRA COTTON
POLYTECHNIC WEST

*Participant in the NCVET Building Researcher
Capacity Community of Practice Scholarship Program 2009*



Australian Government
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About the research

Breaking down the barriers: strategies to assist apprentices with a learning disability

Sandra Cotton, Polytechnic West

Building the research capacity of the vocational education and training (VET) sector is a key concern for the National Centre for Vocational Education Research (NCVER). To assist with this objective, NCVER supports a community of practice scholarship program, whereby VET practitioners without research experience are given the opportunity to undertake their own research to address a workplace problem. Scholarship recipients are supported by a mentor, and NCVER publishes their research results.

Sandra Cotton participated in the 2009 community of practice program. Sandra is the disability services manager at Polytechnic West in Western Australia. Her research explores the difficulties confronting apprentices with a learning disability and strategies that assist them to overcome these difficulties and to achieve unit of competency completion.

The study comprised a survey of apprentices with a learning disability, a focus group made up of lecturers and disability services staff, and interviews with family members to identify the successful strategies used by apprentices, lecturers and support staff.

Key messages

- ✧ The apprentices surveyed reported having the most difficulties with reading and understanding texts. Focus group participants pointed out that the frustration this causes students can lead to other problems such as withdrawal from participation in class and denial of the problem. Non-disclosure was seen as a big concern as it limited the amount of support students could be given.
- ✧ Instructional approaches that accommodate students' learning styles, individual mentoring or tutoring to help clarify concepts, and supportive relationships were strategies endorsed by both the apprentices and the staff as effective in helping the students to complete units of competency.

Tom Karmel
Managing Director, NCVER

Acknowledgments

As a member of the 2009 community of practice (CoP), I gratefully acknowledge the National Centre for Vocational Education Research (NCVER) for the opportunity to participate as a new researcher in the vocational education and training sector. This has enabled me to study the achievements of apprentices with a learning disability, an area of significance, and to recognise the value of research to reflective practice in the training environment.

The Work-based Education Research Centre team at Victoria University and the AVETRA (Australian Vocational Education and Training Research Association) Mentoring Scheme have played a major role in the research process over 2009–10 and I acknowledge the support of Llandis Barratt-Pugh, Berwyn Clayton, Roger Harris and Geri Pancini for guiding, encouraging and giving CoP members the chance to come together and share their progress with other NCVER researchers. One of the major benefits of undertaking this research in this way has been the provision of a mentor who has supported me throughout the research journey. I especially appreciate the quality of the contribution of my mentor, Moira Watson, for her encouragement and assistance during each phase of this study.

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Introduction and context

Purpose

Apprenticeships comprise the main business of many training organisations in Australia and play a significant role in the skills base of the economy. Students with a learning disability, however, are under-represented in vocational courses and are therefore excluded from the opportunities that a trade provides at the completion of an apprenticeship. Many of those who do participate in spite of having a learning disability have the intelligence and reasoning to learn the skills of the trade (Knapp 2004). The purpose of this research is to identify barriers confronting apprentices with a learning disability in training and to examine the broad factors and specific instructional strategies that contribute to the attainment of an industry qualification. A distinction is made here between the broad factors or personal characteristics that contribute to completion, and the strategies or instructional techniques that are necessary to address the specific learning difficulties experienced by these students. Findings from this research project will provide strategies to assist lecturers to comply with current equity legislation and improve the training of apprentices with a learning disability.

Legislation and learning disability

Current policy and legislation requires that the education or training provider make reasonable adjustments so that students with a disability, including those with a learning disability, are able to participate in education and training on the same basis as students without disabilities (Disability Standards for Education 2005). Some of these reasonable adjustments, referred to as strategies in this paper, may include a change in the method of delivery, the use of assistive technology or the provision of verbal assessments. While reasonable adjustments can be made, the provider must maintain the inherent requirements of the course and assessments.

To comply with these regulations, training organisations must determine strategies that overcome the barriers these students confront. An understanding of the characteristics of a learning disability is therefore necessary. Wong (1996) identifies individuals diagnosed with a learning disability as having average or above intelligence, but possessing problems in processing linguistic materials that impair their ability to learn how to read. Linguistic processing problems as a consequence of neurological impairment result in difficulties in some but not all of the following: reading, maths, spelling, writing, and concentration. Other problems with short-term memory, speed of processing, time management and ultimately self-esteem may arise (Dominy & Rees 1997). Processing problems, as a result, create barriers to the students' ability to access information, significantly, the underpinning theory of a course. In this research, the concept of learning disabilities draws from the United States National Joint Committee on Learning Disabilities as cited by Cavallaro et al. (2005, p.35):

... a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. These disorders are intrinsic to the individual, presumed to be due to central nervous system dysfunction, and may occur across the

lifespan. Problems in self regulatory behaviours, social perception, and social interaction may exist with learning disabilities but do not by themselves constitute a learning disability.

Those with a learning disability represent 13.5% of all students who report a disability in VET (Cavallaro et al. 2005). These students are also predominantly male (60.6%), with more than three-fifths proceeding no further than Year 10 in high school. The proportion of students with a learning disability studying at Australian Qualifications Framework (AQF) certificate III and above is considerably lower than the proportion of all VET students, with many having left school early as a result of difficulties with reading, oral and written language, and mathematics (Cavallaro et al. 2005). Unit of competency completion rates leading to retention and course completion are, therefore, a significant issue for this group, who have often been unsuccessful at school and who see training as offering a second chance. Moreover, completion is of concern for apprentices in general, with apprenticeship completion rates in Western Australia around 60% (Western Australia Department of Training and Workforce Development 2010). At a national level, Hill and Dalley-Trim (2008) found that non-completion by apprentices, which historically has been as high as 32%, has significantly jeopardised the skill development of young people in Australia.

The research method

This is a qualitative research study conducted at Polytechnic West, the largest trade training organisation in Western Australia. With ten-and-a-half thousand apprentices and approximately 450 trade lecturers across 35 industry areas, this organisation has a representative cross-section of apprentices and staff to provide an appropriate context for the study. A questionnaire was used to gather data from apprentices with a learning disability who are making progress in their certificate III trade qualifications. Lecturers and disability support staff participated in focus groups, while interviews were conducted with family members and staff unable to be involved in focus groups. Participants in this study were selected for their experience of and insights into this area of research interest. Given the constraints of resources and the time frame, this study concentrates only on unit of competency completion, as this is evidence of progress towards retention and can lead to the completion of a trade qualification. Each unit of competency identifies a discrete workplace requirement and includes the knowledge and skills that underpin competency as well as language, literacy and numeracy, and occupational health and safety requirements (Department of Education, Employment and Workplace Relations 2010).

Literature review

This review of the literature explores factors contributing to completion and non-completion of apprentices and students with learning disabilities in Australia over the past ten years. The review then outlines the requirements of policy and legislation in the provision for students with a learning disability, and discusses studies researching strategies used by students to overcome this disadvantage. Information gathered from this review underpins this research into specific strategies that contribute to unit of competency completion by apprentices with a learning disability.

Factors contributing to apprenticeship completion

A major contributing factor towards completion of apprenticeships might reasonably be expected to be the students' aptitude and skill in the trade or industry. However, much of the research that is discussed in this review indicates that personal attributes, support and motivations are strongly associated with success. The context and conditions giving rise to the factors that influence the completion rates of all apprentices and trainees, including those with disabilities, have been the focus of a number of studies. Important factors, identified by Harris et al. (2001), that help increase retention rates include:

- ✧ individual apprentices with a strong sense of personal agency
- ✧ support from family or friends
- ✧ supportive workplace supervisors, work and learning cultures
- ✧ a high value placed on the occupational situation
- ✧ an ongoing commitment to the industry, demonstrated by students undertaking prevocational courses such as VET in Schools.

The significance of personal agency for the adolescent in the training environment is explained by Zimmerman and Cleary (2006, p.45) as 'one's capability to originate and direct actions for given purposes ... influenced by the belief in one's effectiveness in performing specific tasks'. Underpinning this sense of personal agency is what Zimmerman and Cleary (2006) refer to as a resilient sense of self-efficacy that can sustain students' efforts to learn in a self-directed way. A sense of 'personal agency' is characterised by Harris et al. (2001) as the ability of successful apprentices and trainees to make friends, to talk easily with adults or authority figures and to work towards long-term goals.

Hill and Dalley-Trim (2008) also identify the influence of personal qualities or attributes on completion rates. These include a positive attitude and initiative, the fostering of relationships, access to support, especially familial networks, and a passion for the apprenticeship. The motivation of the apprentice to obtain a certificate to ensure future employment has also been identified as a significant factor by Snell and Hart (2008). The importance of these personal

attributes explains goal-directed behaviour to obtain a certificate as the motivation that can manifest itself in effort, persistence and choice of activities (Zimmerman & Cleary 2006).

Cully and Curtain (2001) found that the employer is important, particularly if they provide the apprentices with the opportunity to use the skills they have learned. In addition to supportive work environments, Harris et al. (2001) identify off-the-job training as giving apprentices an opportunity to build relationships with peers, compare notes about workplaces and gain some technical knowledge. Cully and Curtain (2001) also emphasise the influence of the occupational culture and the quality of training on course completion with a recommendation to integrate better on-the-job with off-the-job training to address poor practices.

Research into completion has a growing significance for Western Australia in particular, with current trends, largely as a result of economic boom conditions in the state, indicating that there is now a greater value placed by young people on a trade. A recent survey conducted by *The West Australian* newspaper indicated that 45% of people between the ages of 18 and 30 think a trade and a university degree are equally important for their future employment (McPhee 2010).

Factors contributing to non-completion by apprentices

Factors that account for over 50% of non-completion by apprentices such as low wages, problems within the workplace and training environment and being dismissed by the employer (Snell & Hart 2008) are not within the scope of this study. In contrast, this research focuses on factors relevant to non-completion in the training context and the transfer of competency to the workplace. These include early school leaving age, Year 10 or below, and previous unemployment as identified by Cully and Curtain (2001). Also related are the findings of Snell and Hart (2008) that the groups less likely to complete an apprenticeship were under the age of 25, had left school before completing Year 12 or 11 or undertaken a certificate I or II qualification. These factors are similar to those identified by Cavallaro et al. (2005) as being characteristic of students with a learning disability.

While prior education levels can be a useful indicator, Ray et al. (2000), cited in Hill and Dalley-Trim (2008) comment that latent characteristics related to educational levels, such as aptitude and motivation, often have the greatest influence upon the likelihood of successful completion. In the same way, Harris et al. (2001) discovered that young people without a sense of personal agency are cut off from others, lack motivation and therefore see little point in personal effort. These characteristics correspond with the factors identified by Hill and Dalley-Trim (2008), such as a lack of initiative and enthusiasm as well as a lack of purpose and self-direction, that determine the impact on retention and ultimately completion.

Factors contributing to completion for students with a learning disability

A range of factors, from motivational to instructional, contribute to the success of students with a disability in post-secondary education. An examination of these factors reveals a number of similarities to the factors identified as affecting the completion rates of apprentices in general. Milsom and Dietz (2009) and Borgã (2007) both emphasise that successful students:

- ✧ establish networks of support such as families and friends
- ✧ show positive personal qualities
- ✧ are able to determine their learning goals
- ✧ place a high value on the chosen occupation.

The value of supportive networks of family and friends concurs with research conducted by the Department of Education, Science and Training (2007), which emphasises the importance of supportive environments and lecturers who establish close working relationships with students to create an atmosphere for success while focusing on skill development.

According to Borgå (2007), personal qualities or attributes play an important part in the success of students with dyslexia in technical and vocational teacher education, with those succeeding showing a mental fortitude to give their very best to each educational endeavour. Similarly, Milsom and Dietz (2009) found that students with learning disabilities who have the greatest chance of success at college display personal characteristics such as persistence, resilience, self-determination and self-discipline. These qualities enable the individual to persevere in pursuit of their goals, despite potential setbacks, because they believe in their personal ability to achieve and maintain a clear focus on those goals. Harris et al. (2001) determined that completion may relate to a high value placed on the occupational situation, which corresponds to findings of Milsom and Dietz (2009) that the retention of students with a learning disability was linked to demonstration of a passion for the job. Similarly, studies conducted by Borgå (2007) reveal that the incentive to complete their vocational goals and a passion for the job are primary motivators for dyslexic students.

Factors contributing to non-completion for students with a learning disability

Similarities between the factors leading to completion and retention for apprentices with a learning disability and apprentices in general are evident in the studies reviewed in the previous section. In the same way, a correlation can be shown between apprentices who do not complete and students in VET with a learning disability. Griffin and Nechvoglod (2008) identified that over 60% of students with a learning disability in VET have low educational levels, often having attained no more than Year 10 at high school. This is also a common factor contributing to non-completion in all apprenticeships (Hill & Dalley-Trim 2008). In relation to these findings, Karmel and Nguyen (2008) propose that support provided to students with a learning disability should deal with the impact of non-disability characteristics, in particular poor literacy levels as a result of low prior education.

Students diagnosed with a learning disability are among those marginalised and who, prior to mandatory participation, often left school at Year 10 before reaching the age of 17. It is likely that the Western Australian Department of Training and Workforce Development's Participation Policy, introduced in 2005, requiring that young people remain in school up until the age of 17 or be engaged in education, employment or training, will have a further impact on apprentice and trainee retention rates. This move has accounted for an upsurge in apprenticeships and may go some way to explaining why many of those students with learning disabilities who would formerly have left education and training at Year 10 are taking on an apprenticeship or traineeship (Hill & Dalley-Trim 2008). At Polytechnic West, for example, apprentices with a learning disability have the largest representation (44%) of all those apprentices who reported a disability on their enrolment forms.

While there are common characteristics between apprentices who fail to complete (Hill & Dalley-Trim 2008) and students in VET with a learning disability (Cavallaro et al. 2005), the latter face additional challenges that impact on their capacity to learn. As previously indicated (Dominy & Rees 1997), individuals with a learning disability are a heterogeneous group with a range of conditions such as dyslexia that can coexist with attention deficit disorder (Wong 1996). In any setting, those apprentices with limited educational backgrounds but with initiative, enthusiasm and a desire to succeed in the industry and who have familial support will still encounter barriers to learning as a result of their disability. These barriers may include poor reading, comprehension

and writing; anxiety and/or depression; and negative self-image (Reiss & Colbert 2004). Although they may possess all the other factors that contribute to success, in the face of these difficulties, apprentices with a learning disability will often need additional support to complete their training. There are, however, some compensatory characteristics, such as strong visual–spatial awareness and a unique problem-solving capacity, strengths that may present as a natural aptitude for certain trades (McNulty 2003). The findings of Tarica (2009) also support the premise that neurological differences give some dyslexics visual–spatial and lateral thinking abilities that enable them to be successful in a wide range of careers.

Policy and legislative requirements

A learning disability is identified under the *Disability Discrimination Act 1992* and *Disability Standards for Education 2005* as a disorder or malfunction that results in the person learning differently from a person without the disorder or malfunction, and the legislation therefore places an obligation on education and training providers to make ‘reasonable adjustments’ to accommodate these students (Shaw 2004). Although training organisations are required to make reasonable adjustments for students, the focus is on improvement and building on their strengths so they are able to participate on the same basis as those without disabilities.

Investigation into strategies or reasonable adjustments

With some exceptions, such as the investigation of barriers to successful outcomes in new apprenticeship training (New South Wales Department of Education and Training 1998), research on apprentices with a learning disability is limited. As a result, this literature review has drawn on studies from higher education sources in the United Kingdom, Europe and the United States. Such studies are considered relevant because their emphasis is not on the form of education and training but rather on the strategies that the increasing number of students enrolling at post-secondary level (Trainin & Swanson 2005) use to access the course information. In both vocational and higher education, compliance with current legislation shifts from remediation to compensatory measures, to accommodate a student’s impaired phonological awareness, the foundation of reading success (Shaw 2004), and may involve metacognitive skills training, extra time and technology. Although a learning disability may vary with each individual, what is common to VET and higher education are the strategies to access information. When implementing strategies, it is important to ensure the student still meets the inherent requirements of the course, or in this case, units of competency.

With the introduction of disability legislation in Australia in 1992, the United Kingdom in 1995 and the United States in 1997, research has focused on the effectiveness of support for students with disabilities. The factors contributing to success, as outlined in this study, are not adequate to address the disadvantage experienced by these students. As a result, adjustments made to accommodate students at training and post-secondary organisations include note-takers, taped lectures, mentoring, extensions for assignments, the use of technology and software packages, and adjustments in instructional approaches. In an analysis of the strategies, Swanson and Hoskyn (2001) determined that instructional factors, including questioning, modelling answers, scaffolding and cooperative learning to help access new information, have positive outcomes for students with a learning disability. This concurs with Borgå’s (2007) research that the students, often as a result of their strong verbal skills, found discussions with their fellow students instructive and rewarding. When it came to reading and writing in groups, however, they found the activities very challenging. To offset this difficulty, handouts were invaluable for a number of students, while some organised peer note-taking. Additional time to practise and acquire a new skill is a fundamental adjustment for these students. Based on the research of neuroscientist Shaywitz (2003), students with dyslexia have a neurological disorder causing

phonological processing difficulties, so ‘far and away the most critical accommodation for the dyslexic reader is extra time. Dyslexia robs a person of time: accommodations restore it’ (p.314). Similarly, to overcome the difficulties of poor writing in assignments, Herrington and Simpson (2009) developed the use of alternative assessments with taped responses and a videoed listener’s support package.

To address poor organisational skills and time management difficulties, Milsom and Dietz (2009) recommend that counsellors or support staff assist students with the use of planners and the development of study skills and self-reliance. As a way of compensating for deficits in phonological processing, Trainin and Swanson (2005) and Wong (1996) identified the use of metacognitive strategies or self-regulated behaviours for students who rely on different cognitive processes. With training in metacognitive skills, students learn to manage their own time, decide with whom to study and to monitor their comprehension using a variety of internal and external supports such as peers, family and relevant staff members. Reiss and Colbert (2004) advocate a supportive learning environment in which to implement these strategies and to overcome the social, emotional and developmental barriers experienced by many of these students. They contend that it is important, therefore, that counselling or disability support staff identify students with a learning disability in a timely manner and work with lecturers and mentoring staff to address the needs of these students to prevent their under-achievement and promote their healthy social and emotional development. Another key to the success of these students, according to Wong (1996), is specific instructional approaches. Adolescents with a learning disability benefit most from strategy instruction, which involves teaching individuals how to learn. They are, therefore, instructed how to approach tasks in a strategic way so they can manage the demands of the post-secondary curricula to enhance their comprehension, organisation and retention of information.

Educational technology must also be considered as a strategy to assist apprentices with a learning disability. Advances in hardware and software applications have benefits for struggling writers (MacArthur 2009). These technologies range from basic word processing, spell checkers, word prediction and speech recognition for transcription and revision, to more advanced speech recognition and voice activation packages. Accessibility has also improved with the emergence of free computer software known as ‘freeware’ and portable software programs that convert text to speech. MacArthur (2009) also identifies the potential of the internet to improve students’ communication skills. The Department of Education, Science and Training (2007) acknowledges the positive social and cognitive development achieved through such strategies and explores how pedagogical approaches using technology can optimise learning.

In some cases, interventions are specific to the individual and the particular disability. In many circumstances, however, the interventions and strategies applied have relevance to many students. They may apply, in particular, to those students who for a variety of reasons share similar characteristics, such as low literacy levels and educational attainment, and early school leaving age. As noted earlier in this review, there are similarities between the characteristics of students not completing their apprenticeship and students with learning disabilities in VET. Many of these apprentices are challenged by these barriers and become discouraged and lose their sense of purpose and motivation. Research demonstrates a combination of generic and specific strategies that are effective for apprentices. Strategies must support and develop students’ self-efficacy. Identifying the broad factors and strategies that contribute to unit of competency completion rates will be advantageous for both groups.

Methodology

The purpose of this study is to identify the broad factors and specific instructional strategies that assist apprentices with a diagnosed learning disability to complete units of competency. The study investigates the progress of apprentices at Polytechnic West, a major metropolitan training organisation in Western Australia, to identify the main contributors to success. Of particular interest are the strategies used by apprentices, lecturing and support staff at this training organisation. Participants with understanding and knowledge as well as diverse perspectives were chosen to contribute to this study. A qualitative approach, including a questionnaire, interviews and focus groups, was used to research what strategies have improved unit of competency completion rates of these apprentices.

The initial intention was to recruit apprentices at three metropolitan registered training organisations. However, time constraints and the availability of resources necessitated that recruitment be limited to one major metropolitan registered training organisation (RTO). To address this limitation, the study was conducted at Polytechnic West, which has an apprentice completion rate closely aligned with the state average completion rate of 58.37% (Western Australia Department of Training and Workforce Development 2009) and ten-and-a-half thousand apprentices enrolled in 35 trade areas servicing industries across the state. This registered training organisation was therefore considered as having a representative sample of apprentices for the purpose of the study.

At the outset of the study, apprentices completed a questionnaire on their personal characteristics and educational backgrounds as well as their reasons for undertaking an apprenticeship, any difficulties they had experienced as a result of their learning disability, and strategies that had helped them with their course (see appendix 1). The questionnaire was designed to capture these demographic details in order to better understand how particular strategies contributed to the successful completion of a unit of competency, as well as the specific struggles and barriers to learning the apprentices had encountered. To recognise the barriers, the broad factors influencing completion and specific strategies contributing to competency, the instrument was drafted with attention to the question wording, and the content was based on the literature research and information from lecturers and staff with expert knowledge in the area. Most of the questions were multiple choice, but a number of open-ended questions were framed to add 'depth, detail and meaning at a personal level of experience' (Patton 2000, p.17).

The recruitment process was an important consideration, requiring that the questionnaire participants be representative of apprentices with a learning disability. To achieve this objective, apprentices who participated in the research were selected from among those who are registered with Disability Services and known to have a learning disability, but making satisfactory progress towards their apprenticeship. Apprentices with a learning disability from the automotive, metal, carpentry and joinery, painting and decorating, and hairdressing trades were invited to complete the questionnaire. The questionnaire was piloted with students and then sent to all apprentices with an accompanying letter that outlined the purpose of the research, assured them of privacy and confidentiality, and requested that they return the questionnaire in a prepaid envelope. Of the

40 apprentices contacted, 21 responded. Ten of the respondents, because of the nature of the learning disability, gave verbal responses to a scribe trained as an impartial intermediary.

Focus groups were used to gain the perspective of lecturing and disability support staff and employer representatives. The design of the focus group questions was based on the student questionnaire in order to complement and develop the information gained from apprentices (see appendix 2). A 50-minute focus group was held with ten lecturing staff from automotive, cabinet and furniture making, carpentry and joinery, painting and decorating, and metal fabrication, and an employment agent representative. Another 50-minute focus group was held with lecturers and disability staff who support apprentices in the training environment. All lecturing staff and other focus group participants had taught apprentices involved in the study during their off-the-job training at the registered training organisation. Using Krueger's (1998) principle of focus group design, staff for the focus groups were selected for their experience and effectiveness in working with these students and in anticipation that they would bring to the group the insights and solutions required for the purpose of this study. As Krueger and Casey (2008) suggest, the size and structure of the groups was small enough for everyone to share ideas and information, but large enough for a diversity of insights. Data were collected with a digital recorder, and transcriptions were analysed and coded using a thematic model (Coffey & Atkinson 1996). In addition to the questionnaire and focus groups, five interviews were conducted to capture the views of three staff members unable to attend the focus groups and two interested parents who wished to provide additional feedback based on their sons' experiences.

This approach of using student questionnaires, focus groups and interviews had the advantage of providing a rich range of data. Furthermore, this multi-method qualitative approach was designed to gain a more in-depth understanding of the situation to bring, as Patton (1990) describes, rigour, depth and breadth to an understanding of the problem. While acknowledging the statistical limitations from a quantitative perspective, the rationale for this qualitative methodology was to understand what Schwandt (1994) refers to as 'the complex world of lived experience from the point of view of those who live it' (p.118).

Findings

This section of the paper examines the information collected from the apprentice questionnaires, the interviews and the two focus groups, comprising lecturers, employment agents and support staff. The findings that emerged from this information fall into the following three categories:

- ✧ barriers to learning experienced by apprentices
- ✧ factors influencing completion
- ✧ strategies that assist with completion of units of competency.

The majority (93%) of the apprentices who participated in this study were male, with only one female representative from hairdressing. This proportion is characteristic of the painting and decorating, automotive, carpentry and joinery and metal fabrication trades, which are traditionally male-dominated industries at a national level (NCVER 2009). While many of the apprentices had to repeat some units, almost 50% of those completing the questionnaire were in the third year of their apprenticeship, with another 35% well into their second year, indicating success with unit of competency completion and their progress towards an apprenticeship. The majority, almost 66%, had finished Year 11 or 12 at high school. Outcomes of both the questionnaire and focus groups correspond with the studies of Hill and Dalley-Trim (2008) and Harris et al. (2001), who found that achievement of Year 12 is a factor influencing apprenticeship completion. Conversely, the findings of Snell and Hart (2008) show that the groups less likely to complete an apprenticeship leave school before completing Year 12 and as early as Year 10.

Barriers to learning

Before determining the factors contributing to competency completion, it is useful to first understand the barriers experienced by apprentices with a learning disability. Apprentices were asked to identify their specific learning disability and the resultant difficulties they had experienced in their courses. As shown by the responses in table 1, over three-quarters of the apprentices who responded to this question have diagnoses of dyslexia, with over a quarter having attention deficit disorder. The overlap in these figures is due to the apprentices selecting more than one option; this is consistent with the coexistence of the two conditions as indicated in a number of the apprentices' psychometric reports. Eleven respondents indicated either 'other' or 'don't know'. This may be a result of a number of psychometric reports not specifying the type of learning disability, as it is common for a student to have the characteristics of more than one type.

Table 1 Apprentices diagnosed with a specific learning disability

Type of learning disability	Student responses	
	Number	%
Dyslexia	12	80.0
Attention deficit disorder	4	26.7
Other	9	60.0
Don't know	2	13.3
Number of respondents	15	

Responses of apprentices and the views expressed by lecturers in focus groups concur on the impact of a learning disability on unit completion. According to one lecturer, 'if they aren't able to understand the theory, to follow instructions or understand a diagram, then they can't visualise how to turn a pile of timber into a doorframe'. Support staff acknowledged that it is difficult for students to catch up in subject areas when they enter a course from a low literacy and numeracy base. This is illustrated by the comment that, 'there is no way with all these years of failure that they are going to grasp the theory straight away'. This viewpoint is shared by some lecturers who doubted the apprentices' 'capacity to complete assessments; even alternative assessments if they hadn't picked up the literacy and numeracy throughout the delivery of the course'.

The impact of a learning disability is shown by the apprentices' responses to questions in table 2. As apprentices experience a range of difficulties, many gave more than one response, with the two most common being reading and understanding of the texts. Over half also experienced difficulty with assessments (57.9%), writing (52.6%) and concentrating (52.6%). Consistent with this, many respondents commented on their inability to access the theoretical aspects of the course.

Table 2 Apprentices' difficulties experienced as a result of a learning disability

Difficulties experienced	Student responses	
	Number	%
Reading	15	78.9
Understanding the texts	14	73.7
Assessment	11	57.9
Writing	10	52.6
Concentrating	10	52.6
Maths e.g. measuring	8	42.1
Time management	3	15.8
Drawing	3	15.8
Being organised	2	10.5
Getting on with others on the job	1	5.3
Getting on with others in class	0	0.0
Bullying	0	0.0
Other	4	18.0
Number of respondents	19	

Only 10% and 15% of apprentices respectively designated organisation and time management as causing difficulty. In contrast, over half of the focus group participants maintained that poor organisation, with loss of timetables and materials, disadvantaged students' progress.

Staff identified coexisting problems associated with the learning disability that affected competency completion, such as distractibility, confusion and working at frustration level, often resulting in anxiety, depression and withdrawal. One lecturer recounted his experience with an

apprentice whose anxiety had manifested in self-harm. Focus group participants, in many cases, considered these behaviours to be avoidance tactics used by apprentices to conceal problems associated with their disability and an inability to cope with aspects of training. When discussing the impact on learning, members of focus groups related the following behaviours:

I sometimes see the negative side with a defeatist attitude or they can be disruptive with a short attention span and distract others.

These students are generally very withdrawn and don't want to come forth. In class they stay quiet and shut up, perhaps doodling, trying not to bring attention themselves.

Perhaps based on their past experiences of being ostracised, they are shy in coming forward. Even when you ask, they will adamantly deny they have any sort of problem saying 'nah, nah, I understand everything', but their work tells you the opposite.

None of the apprentices surveyed for this study identified being bullied as a result of their learning disability. Lecturers, in contrast, reported apprentices from previous years who had put up with bullying in 'a desperate attempt to fit in'.

Reiss and Colbert (2004) confirm the importance of support and counselling to offset the characteristics of student frustration, depression, and low self-concept and self-efficacy. As a result of these negative characteristics, students fail to employ task-specific strategies, important in achieving those goals. In this case, the goals are achieving units of competency towards course completion. This impacts on the students' self-efficacy and, according to Zimmerman and Cleary (2006), the student's subjective judgment of his or her personal capabilities to organise courses of action to attain designated goals.

Non-disclosure, consistent with Cavallaro et al. (2005), was another concern of lecturers, employment representatives and disability support staff. According to lecturers, often employers are not informed that apprentices have a learning disability when they sign on. As a result, it is not recorded and may not be picked up during training until the students fail and are required to repeat course units. This is illustrated at Polytechnic West, where only 70 apprentices are recorded in enrolment records as having a disability and yet a significant number of the apprentices referred to and registered with Disability Services do not appear among these statistics. Lecturing staff maintain that if support is required by students for participation, non-disclosure of a learning disability not only removes the opportunity to provide support but it compounds the problem in the long-term if students fall behind in their courses. All agreed that disclosure is essential for effective and timely intervention. To address this situation, staff emphasised the importance of the curriculum being explained to apprentices and parents at the outset of the apprenticeship so that they understand the inherent course requirements. The role of the disability officer in providing such timely and effective assistance is seen by Reiss and Colbert (2004) as critical to student success.

Focus group participants also questioned the judgment of school staff who advise students not considered for tertiary entry to leave high school early and take on an apprenticeship, particularly those disadvantaged with a learning disability. Lecturers agreed that as a result of taking this option 'apprentices get into TAFE and then find that they need all the things like trigonometry and geometry that they couldn't do at high school'. Some participants recommended training at school in trade literacy and maths.

Factors influencing completion

In spite of the limitations imposed by a learning disability, both apprentices and staff identified a number of positive factors that resulted in improved completion rates. To measure these factors, apprentices were asked to specify what they enjoyed most about their courses. Workshops were nominated by 93% of respondents, while practical lessons also ranked highly at 75%. These answers correlated with responses from lecturers who acknowledged that in some cases these apprentices demonstrated good practical skills or 'hand skills'. As one lecturer commented, 'You sometimes find that the ones who are not so good in the classroom are very good on the practical side; they're very good with the hand skills'. Apprentices also recognised helpful lecturers (87%) and making new friends (75%) as factors that contributed to their unit of competency completion. Peer support and camaraderie helped one apprentice regain his confidence after experiencing years of failure at school. Another recovered his self-esteem as a result of being treated as an adult and encouraged by lecturers. Consistent with this, Harris et al. (2001) and Hill and Dalley-Trim (2008) both confirm the importance of friends and good relationships in achieving a positive training outcome.

Apprentices identified factors such as work satisfaction, pay and job availability as their motivation for taking on their apprenticeship, corroborating the findings of Snell and Hart (2008) and Harris et al. (2001). When asked why they took an apprenticeship in their chosen area, 86% indicated that they enjoyed the work, whereas the potential of being well paid at the completion of the apprenticeship motivated 60%, and 53% were attracted by the availability of jobs in this industry. Almost 60% of respondents indicated either the completion of VET in Schools, work experience or a pre-apprenticeship as the motivation for taking on an apprenticeship. This concurs with the finding of Harris et al. (2001) that those students undertaking prevocational courses demonstrate increased retention rates. Apprentices' responses emphasised the high value placed on the occupational situation and an ongoing commitment to the industry, as indicated by those undertaking VET in Schools. As one apprentice commented, 'it is a trade that I enjoy; I already do it and want to achieve a qualification in this area'. A disability support worker corroborated this view, with her observation that 'one of my students has chosen a subject area that is complex and intricate but because he loves it, he will do it'. The commitment of this group to their specific trade area can be seen in their responses to a question asking if they had enrolled in another apprenticeship course. Only one respondent left his trade for a different apprenticeship and another withdrew from the industry area altogether.

Organisational programs

Focus group participants saw some of the organisation's programs as positively affecting the apprentices' completion. In particular, they referred to the organisation's foundation program, a three-day non-trade-specific introductory program, where literacy and numeracy difficulties are identified by assessment at the point of entry. Lecturers explained that, 'when an apprentice is picked up we get a report on this person identifying the problem, and then organise a CAVSS lecturer'. The Course in Applied Vocational Study Skills (CAVSS) is a Department of Training and Workforce Development framework for teaching literacy and numeracy skills for direct application to VET training activities (Western Australia Department of Education and Training 2009). Course lecturers provide support to trade trainers with the literacy and numeracy components of the training packages. They work with all students, rather than targeting students with a specific learning disability. Staff observed the advantage of this intervention because it does not single out an individual: 'with CAVSS, it helps everyone with literacy and numeracy'. Many lecturers acknowledged that apprentices with a learning disability were accommodated by a training model delivered at Polytechnic West called Transforming Trade Training (TTT). The Transforming Trade Training provision for on-the-job learning helped to alleviate apprentice anxiety and depression, which can be associated with the stress of performing in a training environment. According to one lecturer, this system was very successful with a student who had

overwhelming anxiety when attending classes and wanted to withdraw: 'he had to be assessed on site and he was absolutely brilliant and succeeded'. Some lecturers, while supporting the training model, expressed concern that, with the emphasis on on-the-job learning, struggling apprentices would miss out on the support provided at the training organisation with the underpinning theory. Both the Course in Applied Vocational Study Skills and the Transforming Trade Training are models that support and provide flexibility to apprenticeship training; they do not however always address the additional learning requirements of students who are further disadvantaged by a learning disability.

Supportive relationships

All participating lecturers emphasised the importance of providing a stimulating and encouraging learning environment with appropriate styles of delivery to accommodate apprentices' different learning styles. One lecturer, acknowledged for his success in dealing with apprentices at risk of failure, stressed how important it is to give apprentices a challenge, but to support them through the challenge with the tools they need to succeed. Similarly, a metal fabrication lecturer, while enthusiastically advocating the value of building the apprentices' self-esteem, understood that encouragement alone was not enough. As a result, he uses a range of delivery styles and strategies that create a supportive working environment. This involves listening to the students, building trust through group activities and setting up a buddy system where the strengths and weaknesses of the students are balanced in an encouraging team atmosphere. Apprentices, he maintains, are 'more receptive to learning when they are happy and their stress levels are down'. These practices confirm the need for a supportive learning environment, as proposed by Reiss and Colbert (2004), so that apprentices with a learning disability overcome social, emotional and developmental barriers to learning. The findings of this study showed that apprentices agreed with the measures taken by lecturers to encourage the students, with 66% acknowledging the role of understanding staff and 20% confirming the benefits of peer support. In addition, research by the Department of Education, Science and Training (2007) verifies the importance of positive relationships with students in creating an atmosphere for success.

Family members interviewed for the study also recognised the support of peers and lecturers in helping to address the anxiety and frustration experienced by their sons and the role this support plays in building self-esteem. A mother maintained that making friends helped her son to overcome his anxiety and participate with confidence in the routine of training life. Family, as identified by Harris et al. (2001), was also considered as playing an important supportive role, with two parents and four apprentices in this study highlighting family tuition as contributing to progress in their courses. Parents who responded felt that their contributions, by revising the concepts covered in the course, were significant. One apprentice stated that the support he received from his family helped him to understand things and kept him focused.

Strategies that assist with completion

Findings from this study reveal that apprentices are motivated to complete the courses, citing reasons such as high work satisfaction, the support of lecturers or the friendship of peers as well as participation in VET or previous work experience. However, the evidence suggests that for those apprentices with a learning disability, these factors are not enough to achieve completion. With this group, specific instructional strategies are needed to compensate for their processing problems in accessing the course. Apprentices were asked to indicate the sorts of things that had helped with their course. The results, as shown in table 3, identified a range of strategies as helpful, with most respondents selecting more than one option.

Table 3 Strategies that have assisted with unit of competency completion rates

Strategies	Student responses	
	Number	%
Mentoring/tutoring	14	77.8
Understanding staff	12	66.7
Practical experiences	11	61.1
Handouts	11	61.1
Practical demonstrations	10	55.6
Extra time	9	50.0
Verbal assessment	7	38.9
Note-takers	6	33.3
Help with organising study e.g. study skills	6	33.3
Peer note-taking	4	22.2
Technologies e.g. use of the computer	4	22.2
Other	3	14.3
Number of respondents	18	

The importance of individual tuition is evident, with 77% of apprentices specifying mentoring or tutoring provided by support staff as the most helpful strategy. The focus groups identified that it is the quality of this mentoring or tutoring that is relevant to the student achieving competence. Measures used by these staff that compensate for processing difficulties while enabling the students to demonstrate their understanding include:

- ✧ simplifying terms, clarifying concepts and breaking down the information
- ✧ mind mapping or exploring concepts
- ✧ metacognitive strategies for time management and organisation
- ✧ use of equipment, diagrams and other visual representations to present abstract concepts
- ✧ assistance with technologies such as laptops and tape recordings.

Feedback from the disability support staff illustrates how they apply strategies to develop the apprentices' knowledge and metacognitive abilities required to complete the tasks. For example, they clarify theory by using questioning techniques so that students can demonstrate their understanding of the concepts. One disability support staff member described how he used questioning techniques to enable apprentices to demonstrate the skills involved in the assessment task: 'After the lecturer had delivered the theory using explicit instruction, we broke the information down using practical examples and questions so the student could show me what was in his mind'. According to Swanson and Hoskyn (2001), this technique of scaffolding allows individuals to access new knowledge by trying to make sense of it in relation to what they already know about the area. Support staff provide opportunities for students to relate what is taught in class to their own experiences. As a result, understanding is developed by the use of academic enquiry rather than an expository approach.

A support worker described the instructional technique she used, whereby she made the student take the role of teacher and explain a concept. She contended that reversing the roles of instructor and learner and asking 'how do I do this?' gave the student confidence. Similarly, maths sessions were made relevant to the apprentice by relating the theory to a task at work or an activity in the workshop with the use of diagrams, equipment or technology. Strategies outlined here assist apprentices to change personal subjective judgments, as discussed by Zimmerman and Cleary (2006), to overcome frustration and low self-esteem and to instigate progress towards achieving their goals. According to lecturers and support staff, apprentices often find the information overwhelming and it is therefore necessary to break it down so they are able to grasp the meaning and concepts of the related theory. This process, according to support staff,

is best conducted in a separate venue where students can relax. As one support worker claimed, 'when apprentices are overwhelmed and in fear mode they don't learn well'. Two support staff participating in the focus groups emphasised the importance of establishing protocols and guidelines for the mentoring relationship to ensure that the apprentice took advantage of the opportunity to work towards a successful outcome.

Specific instructional strategies, as described by Wong (1996) and Trainin and Swanson (2005), were acknowledged by the majority of apprentices, staff and parents as crucial in strengthening the apprentices' capacity to complete the underpinning theory of the course. Lecturers supported an instructional approach that delivers concepts by building on the students' learning strengths, such as good hand skills and visual-spatial awareness. A holistic or multi-sensory approach to training reinforces theory through direct practical experience. This model of delivery addresses the learning styles of a class rather than isolating individuals for remediation. A lecturer in automotive described the procedure of cooperative training, where the theory is made accessible through 'hands-on' application, visual representations and peer support as follows:

We pair up the less capable students with stronger students during a quick theory presentation, which is put into practice in the workshop and further supported with diagrammatical presentations. This is then reinforced back in the class through discussions and debriefing. By breaking it down, it then reinforces what you've done in the class and that connection helps it stick for the fellow that struggles with the theory. In Auto, the apprentices cover more theory when they're up to their elbows in it and they've got a piece of equipment in front of them.

Similarly, lecturers from other industry areas, such as metals and building, emphasised the importance of skill practice and application. They agreed that the support of the employer is also paramount in providing the apprentice with experience in skills practice and they have contacted employers to request that they give the apprentices more exposure to certain skills. Where apprentices are eligible to receive extra assistance from the Commonwealth Government through the Disabled Australian Apprentice Wage Support, they receive extra on-the-job tutoring that relates to training theory, delivered with the support of Disability Employment Network staff.

Overall, lecturers agreed on the importance of using strategies that engage the apprentices rather than simply relying on 'chalk and talk'. These strategies, delivered in a supportive environment, underpinned by effective instruction, such as modelling answers, scaffolding and cooperative learning, can achieve positive results for apprentices with a learning disability. According to a metal fabrication lecturer, apprentices in his area go the whole year before formal assessments are conducted. As he explained:

Apprentices start at point A and go over and over until the end of the year when they do the final practice and theory assessments. So far we are getting a higher pass rate because we are reviewing and assessing constantly and students have a chance to revisit areas that they haven't mastered.

Trainin and Swanson (2005) similarly endorse these modes of delivery, where long-term retention of information is increased by practice at different time periods and where explicit practice is applied at different stages of learning. Moreover, the allowance of extra time as recommended by Shaywitz (2003) is incorporated into these practices. Responses from apprentices and the views expressed in focus groups by staff corroborate that practical experience and demonstrations and peer learning assist with student unit of competency completion rates.

In this study, evidence of the value of technology is inconsistent. Only 22% of apprentices indicated that it had assisted them with their studies, and only two requested the use of more electronic equipment. One stressed the immediacy of the written result and the ability to manipulate material using the spelling and grammar check, while another apprentice achieved competency by video recording his assessment task. By contrast, a third of lecturers and support

staff participating in focus groups had used and advocated technology as a viable means for students to demonstrate their understanding of the subject and competency in assessment tasks. Two staff members described their use of the internet for online delivery. Their presentations, using technology with visuals and animation, accommodate a variety of learning styles as well as students who may not be able to attend all lectures. This delivery fulfils the potential of the internet to improve student learning as identified by MacArthur (2009).

Information gathered from apprentices, lecturers, support staff and employers through questionnaires, focus groups and interviews has been summarised to show the strategies viewed as most effective by all groups. The summary in table 4 indicates strategies that have been nominated by all groups as successful, what is involved in the application of the strategies and the advantages for apprentices.

Table 4 Summary of most significant strategies and reasons for success

Successful strategy	Specific action	Advantage for apprentices
<i>Mentoring/tutoring</i>	Clarifying concepts, simplifying terms e.g. technical	Presentation of material in plain spoken language provides access to course information
	Chunking or breaking down the information	Tasks become achievable and memory overload due to poor retention is avoided
	Metacognitive strategies	Improves organisation, time management and develops study skills for self-reliance and confidence
	Questioning techniques	Enables student to display knowledge, build on prior knowledge and increase confidence
<i>Instructional approaches</i>	Use of multi-sensory or holistic approach	Uses strengths e.g. 'hands on' to develop other skills and reduces dependency on reading for information
	Practice and repetition	Assists with retention and transfer from short-term to long-term memory
	Use of equipment and relate to everyday life	Brings abstract ideas to life and shows the job relevance
	Demonstrate using concrete examples	Modelling brings meaning to written instructions
	Extra time	Compensates for processing difficulties to access information or show competency in assessment
	Handouts	Compensates for those who find it difficult to write and listen or those who write slowly as a result of processing speeds
<i>Relationships</i>	Understanding staff and helpful lecturers	Reduces anxiety and improves opportunity to learn

Many of the strategies outlined in table 4 are suitable for the training context and provide a 'hands-on' approach in a practical learning environment. They add value to delivery for all apprentices beyond 'chalk and talk', with the use of equipment and concrete examples. Although outside the scope and resources provided for this study, it is possible that apprentices without a learning disability would benefit from the use of similar interventions.

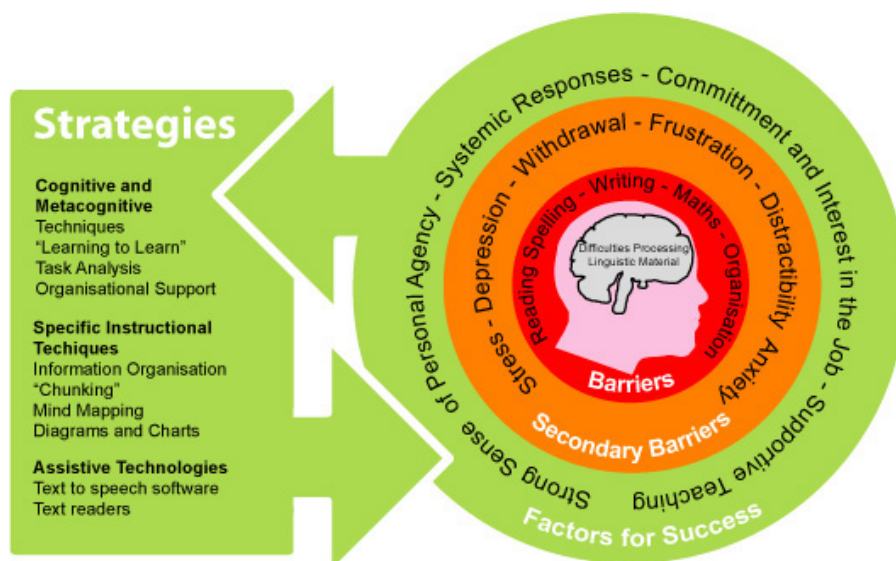
Summary and conclusion

Summary

This study identifies a range of factors and instructional strategies that contribute to successful unit of competency completion by apprentices with a learning disability. Many of these apprentices, as shown by the literature and findings of this research, experience linguistic processing difficulties that create barriers to accessing the theoretical components of the training unit of competency. These barriers manifest as difficulties with reading texts, writing, concentration, organisation and time management. In addition to these barriers, individuals may be further disadvantaged by frustration, anxiety, low self-esteem and low self-efficacy as a result of the long-term impact of disappointment and failure in the learning environment. Training that provides apprentices with opportunities to build on their strengths, interests and aptitudes, strengths such as being 'hands on' or having good problem-solving skills, can restore their confidence and motivation.

In spite of the barriers, many apprentices with a learning disability have made progress and have shown the capacity to understand concepts and demonstrate their skills in order to achieve competency. As shown in the literature and findings of this research, this success can be attributed to factors such as a commitment to the job, a sense of personal agency, support from family and friends and an encouraging work and training environment. Another important consideration is the completion of Year 12, previous work experience or VET in Schools. Inclusive styles of delivery and supportive learning environments can also assist in achieving competency. Underpinning these broad factors have been specific strategies that accommodate students with a learning disability: additional time, presentation of information in different formats and the use of technology. These strategies have a basis in sound educational philosophy and may be relevant to apprentices in general. Figure 1 shows the interrelationship of strategies and factors in overcoming barriers experienced by these apprentices.

Figure 1 Factors and strategies that address the barriers experienced by students with a learning disability



The findings of this study show that awareness and application of strategies by lecturing and support staff is keeping pace with contemporary policy and equity principles. In addition, it indicates a willingness to be inclusive and deliver training to meet the learning needs of students from diverse backgrounds. Although techniques such as verbal assessments with extra time have been used widely in the trade areas, staff are now demonstrating more advanced strategies in style of delivery and use of technologies and working closely with support staff and employers.

The implementation of strategies that overcome or remove barriers to learning present many apprentices with an improved outlook. As shown in this study, the target group has the capacity for skills acquisition but is disadvantaged by neurological impairment, which affects processing, upon which reading and writing fluently are contingent. Many of these students have been discouraged at school but see that training organisations now offer an alternative opportunity that may draw on other abilities such as visual–spatial awareness, practical skills and an aptitude for problem-solving or lateral thinking. Strategies that underpin such practice may accommodate other students disenfranchised by the education system. As demonstrated in the study, apprentices with a learning disability have many characteristics in common with these students. The similarity between these two groups has been touched on. This may be worth further investigation, as the attrition rate (Hill & Dalley-Trim 2008) is significant among both these groups and contributes to lost potential. Furthermore, strategies that build on students’ strengths and advance an inclusive approach enhance the quality of delivery and advantage all learners.

Conclusion

Insights provided by this study may assist training organisations to put in place practices that will help these apprentices to achieve success. Support among lecturers for training at school in trade literacy and maths emphasises the need for closer cooperation and liaison between schools and training organisations to ensure that individuals have the prerequisite knowledge of the theory required in many of the industry areas. The success of VET in Schools programs for apprentices with a learning disability highlights the importance of these links. As trades become more appealing as a career path, the literacy and maths underpinning training in the trades must also be emphasised for those students not undertaking entry into tertiary education. For students with a learning disability, it would be ideal if strategies were introduced at this stage so that transitions from school to training are smooth and barriers are identified, as early intervention is essential.

Training organisations also need to be aware of the support that can be offered so that instructional strategies requiring additional resources can be put into place. For example, additional mentoring and tutoring, for which funding is available through the Disabled Australian Apprentice Wage Support scheme, provides apprentices with opportunities to practise the related theory in the work setting—practice that lecturers in this study identified as crucial to apprentices’ competency. Such a training environment, which ensures that skills are practised and honed in the workplace, illustrates how specific strategies can be effective in assisting apprentices in their achievement of competency.

As shown in this study, early identification of these students is necessary to ensure timely and effective assistance. To achieve this, lecturers must be provided with the knowledge to recognise these students for early intervention. This requires professional development so that staff are equipped to apply the strategies for these students to succeed in training.

This study highlights that a training environment that is inclusive, encouraging and willing to apply a range of strategies which are compliant with legislative guidelines and give apprentices the chance to overcome the disadvantage of a learning disability will enable apprentices to achieve success in units of competency in a vocation of their choice.

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Appendix 1 – Questionnaire

Research Project: Identify the factors that contribute to the module completion rate of Apprentices and Trainees with diagnosed Learning Disabilities.

Please answer the following questions. Use a tick in the boxes.

Section 1: About you

1. Age _____
2. Male Female
3. In what year did you leave school?
Year 12 Year 11 Year 10 Year 9 Year 8
Other _____

Section 2: About your Apprenticeship/Traineeship

4. Trade or industry area _____
5. What is the year of your apprenticeship/traineeship?
1st year
2nd year
3rd year
6. Why did you take an apprenticeship or traineeship in this area?

	Yes	No
I enjoy/like the work	<input type="checkbox"/>	<input type="checkbox"/>
It is a family business	<input type="checkbox"/>	<input type="checkbox"/>
It will pay well when I finish	<input type="checkbox"/>	<input type="checkbox"/>
I finished a pre apprenticeship in this area	<input type="checkbox"/>	<input type="checkbox"/>
It was my parents choice	<input type="checkbox"/>	<input type="checkbox"/>
Career advice from school	<input type="checkbox"/>	<input type="checkbox"/>
I completed a VET in schools course in this area	<input type="checkbox"/>	<input type="checkbox"/>
I completed work experience in this area	<input type="checkbox"/>	<input type="checkbox"/>

Other reasons _____

7. **Have you had holds on any of your units?**

Yes No

8. **Have you been enrolled in another Apprenticeship or Traineeship before this one?**

Yes No

Section 3: About your Learning Disability

9. **What is your Disability? Please tick.**

ADHD

Autism Spectrum

Dyslexia

Don't know

Other _____

10. **Did you tell your lecturers that you had a Disability?**

Yes No

11. **Tick a response/s if you answered NO to question 10.**

	Yes	No
I didn't think it would matter	<input type="checkbox"/>	<input type="checkbox"/>
I thought I wouldn't be selected for the course if I told them	<input type="checkbox"/>	<input type="checkbox"/>
I didn't want anyone to know	<input type="checkbox"/>	<input type="checkbox"/>
I haven't been tested so I wasn't sure	<input type="checkbox"/>	<input type="checkbox"/>

Other _____

12. **Tick any difficulties you have experienced because of your Learning Disability.**

Understanding the texts

Reading

Writing

Maths e.g. Measuring

Assessments

Drawing

Time management

Being organised

Concentrating

Getting on with others in the class

Getting on with others on the job

Bullying

Other Difficulties _____

13. What parts of the course do you enjoy?

- Workshops
- Computing
- Practical lessons
- Learning new things
- Making friends
- Interesting subjects
- Helpful Lecturers

Other _____

14. What are some things that have helped with your course? Please tick.

- Mentoring/Tutoring
- Extra Time
- Verbal Assessments
- Note Takers
- Peer note taking
- Technologies e.g. use of the computer
- Practical Experiences
- Practical demonstrations
- Help with organising my study e.g. study skills
- Handouts
- Understanding staff

Other _____

15. What have you found to be the most helpful?

16. A) If you have used technology such as computers how has this been helpful?

B) Why did you find this to be helpful?

THANK YOU FOR YOUR PARTICIPATION

Appendix 2 – Focus group questions

What has been your experience in dealing with apprentices and trainees with a learning disability?
e.g. dealing with inattentiveness, disorganisation, poor literacy etc.

How did the learning disability impact on the apprentices/ trainees' training/ work?

What are some of the difficulties or barriers that the apprentices/ trainees experienced because of a learning disability?

What assistance were the apprentices/ trainees given?

Explain how the assistance helped the apprentice/ trainee complete their units/ modules successfully.

What strategies have you employed to improve the module completion rates of apprentices/ trainees with a learning disability?

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