Supporting tertiary students with disabilities: individualised and institution-level approaches in practice

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Publisher's note

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A 'good practice guide' relating to this research is available, titled *A guide to supporting students with a disability or mental illness in tertiary education.* It can be accessed from NCVER's Portal <http://www.ncver.edu.au/publications/2833.html>.

To find other material of interest, search VOCEDplus (the UNESCO/NCVER international database <http://www.voced.edu.au>) using the following keywords: disability; learning support; outcomes; providers of education and training; student services; students; teaching and learning; tertiary education

About the research

Supporting tertiary students with disabilities: individualised and institution-level approaches in practice

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This research explores the complex factors affecting the implementation of learning supports for students with disabilities or ongoing health conditions. It focuses on two types of learning support: individualised reasonable adjustments; and institution-level learning supports, the latter being available to all students.

These supports can play an important role in improving outcomes for students with disabilities or ongoing health conditions in terms of their engagement with, and completion of, tertiary education.

Key messages

- A range of reasonable adjustments were identified in the research, including changing assessment formats to suit the student's needs, for example, oral instead of written presentation; the availability of note takers in class; and extended time for students to complete exams. This reflects the diversity of the student population, as well as the various learning environments for which the adjustments are intended. Students also identified a number of reasonable adjustments (for example, extended time to complete assignments) that are typically available as institution-level supports for all students.

- A student's access to reasonable adjustment supports often depends on them disclosing their illness or disability. This is problematic, as many students are concerned about the risks to their reputation which may accompany disclosure. As a consequence, this research highlights the benefits of improving institution-level supports to produce inclusive learning environments, since these do not necessitate disclosure.

- Students and disability services staff judge the effectiveness of learning supports differently. Students focus on the impact that supports have on their ability to cope; their motivation to succeed; and their enjoyment of studying. On the other hand, disability services staff emphasised students completing courses or postponing study until better prepared.

- Best practice for the provision of learning supports involves: strengthening teacher knowledge about the ways by which to adapt tasks and spaces to support individual students; recognising and respecting differences in student needs; and establishing inclusive curriculum design and practice across the educational institution.

Craig Fowler
Managing Director, NCVER

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Executive summary

Experiencing disability or ongoing ill health can significantly disrupt the educational attainment and employment prospects of young people completing school or beginning careers, potentially creating lifelong social and economic disadvantage (Catroppa et al. 2008; Mealings, Douglas & Olver 2012; Polidano & Mavromaras 2010; Waghorn et al. 2011). While international and Australian evidence suggests that the number of students in post-secondary education with disabilities is growing (Barlow et al. 2007; Brett, Norton & James 2012; Griffin & Beddie 2011), their course-completion rates tend to be poorer than for other students (Cavallaro et al. 2005; Karmel & Nguyen 2008). Students with disabilities may need additional support to ensure their access and participation on the same basis as other students.

'Reasonable adjustments' are a form of individualised support provided by educational institutions for students with disabilities to enable their participation in education on an equal footing with other students, in accordance with the Disability Discrimination Act and the Australian Disability Standards for Education (Commonwealth of Australia 2005). Although guides to making reasonable adjustments in the teaching and assessment of students with disabilities have been developed (for example, Western Australian Department of Training and Workforce Development 2013; Queensland VET Development Centre 2010), less is known about the range of reasonable adjustments being offered to tertiary students with disabilities, how they are implemented in practice, or their impacts on students' experiences, retention and success in tertiary courses (Griffin & Nechvoglod 2008; Simpson & Ferguson 2014; White 2011).

This report investigates the provision of supports for students with disabilities in tertiary education from the viewpoints of three key stakeholder groups: tertiary students with disabilities or ongoing ill health; specialist disability services staff; and teaching staff with course or curriculum leadership roles. Qualitative interviews were conducted with 25 current students with disabilities, seven specialist disability services staff and three course leaders in two tertiary education institutions: one vocational education and training (VET) institute and one university. The interviews explored the following topics: the kinds of individualised reasonable adjustments offered to these students and the factors influencing their implementation and perceived usefulness; and the institution-level learning supports considered useful in supporting these students.

This research found that:

- Supporting students with disabilities to participate in tertiary education is complex in practice. The processes involved in supporting these students include identifying, negotiating and implementing learning supports, processes in which multiple people need to be engaged.

- The methods for supporting students with disabilities to participate in tertiary education in practice had more similarities than differences across the two institutions involved in this study.

- Many types of individualised reasonable adjustments were identified, reflecting diversity in the students, as well as in the learning tasks, assessments and learning environments for which the adjustments are intended.

- At least some adjustments described as useful for students in this study (for example, extended time to complete assignments) are also institution-level learning supports available to all students. Some others (for example, tutorial support, study skills development) are provided specifically by disability services and general learning support services staff.

- Some institution-level learning supports, particularly those involving technologies (for example, smart phones, online tools) and inclusive classroom supports, were identified as useful to students with disabilities. Institution-level learning supports refer to the structures and practices that enable the participation of most students most of the time. These were largely invisible to students with disabilities, disability services staff and course leaders until the supports became in-accessible (for example, online course materials not being consistently available).

- Students and disability services staff define the effectiveness of learning supports in different ways. For students, a better understanding of their own needs, the increased ability to cope, more enjoyment and doing their best in studying were markers of effective learning support. On the other hand, disability services staff emphasised students completing courses or postponing study until better prepared as indicating effective learning support.

Overall, students reported valuing the support received from disability services, as well as the willingness and responsiveness of teaching staff in addressing their learning support needs. Students with less visible disabilities reported that their difficulties and need for reasonable adjustments seemed less well understood. Nevertheless, from the perspectives of students, disability services staff and course leaders, the processes that underpin the use of disability supports are complex to navigate. Several factors contribute to this complexity.

First, student access to disability services is influenced by variability in student awareness of the available learning supports, choice about whether and when to register for disability support, and uncertainty about the registration procedures. This indicates that clear information — and in multiple formats — detailing the available learning supports is crucial to guide students to relevant services, disability disclosure and disability services. Staff awareness of the available supports is also critical.

Second, students, disability services staff and teaching staff all have involvement in the processes of identifying learning support needs, developing learning support plans, and negotiating how reasonable adjustments are implemented. Yet, with multiple people involved, the extent of collaboration in these processes was seen as variable and not consistently or easily negotiated:

- *Students* would prefer to determine the extent of their own involvement in the processes of identifying, negotiating and implementing learning supports, instead of routinely being expected to negotiate learning support plans and adjustments with disability services, course leaders and teaching staff. Students reported that without this involvement the identified learning supports were not always relevant or useful.

- *Disability services staff* described supporting students both directly and indirectly and using varied approaches that emphasised monitoring, encouraging, empowering, requiring students' self-management, or complying with institutional requirements. Disability services staff indicated that they often relied on each other for informal skills

development, given the diverse range of student needs requiring support. While disability services staff described expending considerable time on providing information for teaching staff, they did so with a sense of limited power in negotiating how learning supports are actually implemented in practice.

- *Course leaders* clearly articulated valuing inclusive educational practices; they also indicated that the identification and implementation of support for students with disabilities was compromised by the high workload of teaching staff and their administrative responsibilities. From their perspective, these factors potentially undermined the effective communication and relationships with individual students and disability services that were necessary to implement appropriate support.

The viewpoints of students, disability support staff and teaching staff highlight the need for a greater emphasis on collaboration among the parties involved — with the student at the centre — in order to provide relevant and effective learning supports for individual students. Greater collaboration could also serve to identify where institution-level learning supports are most useful to students with disabilities, as well as the ways by which specialist disability services may be more seamlessly linked with institution-wide learning supports.

While based on a relatively small case study, this report identifies good practice examples of the ways by which the provision of individualised reasonable adjustments may be enhanced and highlights the institution-level learning supports that could be expanded to foster learning environments that are inclusive of students with disabilities in tertiary education.

ℹ️ Introduction

The overarching goal of this research was to explore the factors affecting the implementation of supports for students with disabilities or ongoing health conditions to their participate in tertiary education. It focuses on two types of learning supports: individualised reasonable adjustments; and institution-level learning supports.

A *reasonable adjustment* refers to an action or measure taken to assist an individual student with a disability to participate in education, by taking into account the student's learning needs and balancing the interests of others affected, for example other students, the education provider and staff. Education providers are obligated to ensure that students with disabilities are able to access and participate in education on the same basis as students without disabilities, in accordance with the *Disability Discrimination Act 1992* (DDA; Commonwealth of Australia 1992) and the Disability Standards for Education (Commonwealth of Australia 2005). Mandated activities include consulting with students with disabilities about their learning support needs, providing reasonable adjustments, and ensuring an environment free from harassment and discrimination. An education provider is not required to make changes if these would impose unjustifiable hardship (Commonwealth of Australia 2005). Changes or modifications should also be made in ways that maintain the integrity of the course and qualification (Queensland VET Development Centre 2010). Therefore, a reasonable adjustment is an individualised form of support, the purpose of which is to enable a student with a disability to participate in education on an equal footing with other students; it is not to advantage students with disabilities or alter course standards or outcomes (Western Australian Department of Training and Workforce Development 2013).

Tertiary education institutions also typically provide a range of learning supports for students in general; that is, structures and practices designed to enable the participation of most students most of the time. Examples may include study skills assistance and library, technical and language skills support. In this report, these are termed *institution-level learning supports*.

All students may make use of institution-level learning supports, whereas students may request *individualised reasonable adjustments* on the grounds of a disability or ongoing health condition. This includes permanent and temporary physical, sensory and learning disabilities, mental health issues and medical conditions.

The definitions of disability used in Australia vary (Griffin & Beddie 2011). A useful framework by which to consider reasonable adjustments is that of the World Health Organization (2001). It suggests three foci for understanding disability: impairments (of body structure or function); activity limitations (in executing specific actions or tasks); and participation restrictions (in opportunity for involvement). Therefore, while the term 'disability' is often used to describe impairments (physical, sensory and so on), it is important to recognise that disability also arises from barriers to participation, given that it is these barriers that reasonable adjustments are intended to overcome. This report uses the term *students with disabilities* to be inclusive of disability understood in both ways.

Background

International and Australian evidence suggests a growing number of students in post-secondary education with disabilities or significant health conditions (Barlow et al. 2007; Brett, Norton & James 2012; Griffin & Beddie 2011). For instance, in the VET sector the total number of students who disclosed a disability increased between 2002 and 2010, although the proportion of VET students with disabilities appears more stable (Griffin & Beddie 2011). Most commonly reported were medical conditions, followed by learning and physical disabilities and mental illness (Griffin & Beddie 2011).

Disability can significantly disrupt educational attainment, negatively impacting on employment prospects, career development and lifetime earnings (Catroppa et al. 2008; Mealings, Douglas & Olver 2012; Polidano & Mavromaras 2010; Waghorn et al. 2011). There are many barriers to successful re-engagement with education for students with disabilities. Consequently, course-completion rates, educational achievement and employment outcomes tend to be poorer among people with disabilities compared with the general VET student population, but they also differ by disability type (Cavallaro et al. 2005; Griffin & Beddie 2011; Karmel & Nguyen 2008). The known risk factors for dropping out of post-secondary education among students with persistent mental ill health include: thinking difficulties associated with the symptoms related to particular conditions and with medication effects; lowered academic self-confidence; discriminatory attitudes; and consequent reluctance to seek assistance from academics or fellow students (Hartley 2010). Likewise, with the onset of an acquired disability (for example, brain injury), students may experience changes to thinking, behaviour and physical skills that affect their participation in educational and social networks (Mealings, Douglas & Olver 2012). Inflexible course structures, complex systems and discrimination in educational settings are thought to exacerbate these issues (Hartley 2010; Megivern, Pellerito & Mowbray 2003).

More effective support is called for to improve the course-retention and completion rates of students with disabilities and to address their disadvantages (National VET Equity Advisory Council 2011). Some educational and psycho-social interventions have been designed to enhance participation in post-secondary education for students with disabilities. These interventions tend to focus on students' skill building, on compensating for the challenges experienced by students, or on the provision of transitional programs to overcome initial return-to-study hurdles. No consistent approaches and few outcomes have been reported to date (Venville, Street & Fossey 2014). However, access to learning supports are considered crucial to improving the educational participation and success of students with disabilities (Hartley 2010; Morrison, Clift & Stosz 2010; Ylvisaker et al. 2001).

Educational institutions must legally provide reasonable adjustments, if required, to enable students who disclose disabilities to participate in education; yet more needs to be known about what is being done to assist eligible tertiary students and how the outcomes for these students are affected as a result (Griffin & Nechvoglod 2008; White 2011). Furthermore, a recent Australian Government review of the Disability Standards for Education concluded that, while student support services are assumed to have positive impacts on student experiences, course retention and success, there is a lack of clarity about how to consistently interpret and apply the principles contained within the Disability Discrimination Act (Department of Education, Employment and Workplace Relations 2012). In the VET sector, several guides to making reasonable adjustments for students with disabilities go

Disability can significantly disrupt educational attainment, negatively impacting on employment prospects, career development and lifetime earnings.

some way to addressing this issue (for example, Queensland VET Development Centre 2010; Western Australian Department of Training and Workforce Development 2013). These guides explain the concept and role of reasonable adjustments in the teaching, learning and assessment of students with disabilities to ensure their educational access, opportunity and outcomes on an equal footing with other students. They also provide valuable practical examples of the kinds of reasonable adjustments that may be made for students in VET courses and apprenticeships. Nevertheless, there is limited research investigating the implementation of reasonable adjustments in practice within the tertiary sector.

Some recent studies overseas have investigated the provision of reasonable adjustments in tertiary education (Magnus & Tøssebro 2014; Schreuer & Sachs 2014). For instance, in an Israeli study, the majority of students with disabilities reported using individualised reasonable adjustments to undertake their higher education courses. These adjustments were positively correlated with measures of participation and student satisfaction (Schreuer & Sachs 2014). Yet, tertiary students in other studies have reported negative reactions to their disclosure of their disabilities and requests for adjustments, or dissatisfaction with the supports offered (Olney & Brockelman 2003; Venville & Street 2012). For instance, Venville and Street found VET students who disclosed their mental ill health expressed dissatisfaction with the reasonable adjustments offered to them, reporting that these adjustments neither outweighed the risks to their reputation and integrity accompanying disclosure, nor made substantial differences to their course outcomes. Some tertiary students may therefore prefer not to disclose their disability (Magnus & Tøssebro 2014; Venville & Street 2012). That said, the extent of non-disclosure is difficult to ascertain for various reasons, including the quality and scope of the data routinely collected in the tertiary sector (Griffin & Nechvoglod 2008).

To improve student access to support and to decrease the need for students to be singled out or disclose their disability in order to receive support, there have been calls for more systemic approaches to the provision of learning supports (Schreuer & Sachs 2014; Shevlin, Kenny & McNeela 2004; Wray et al. 2013). Examples in VET and higher education include the application of the principles of inclusive or universal design to take account of students with diverse backgrounds and learning styles in the development of curriculum, teaching materials and instructional methods. In addition, efforts to support all students to remain engaged in tertiary education have led to some institution-level strategies being implemented (for example, greater flexibility in assessment tasks and submission dates, early-warning triggers when students are not attending classes or are not engaged in online learning). Little is known about the usefulness of such strategies for students with disabilities.

In summary, this research sought to investigate the following three research questions from the perspectives of VET and university students and staff in order to identify ways by which to enhance the capacity of the tertiary sector to respond to the learning support needs of students with disabilities.

Research questions

- What individualised reasonable adjustments are being offered to students with disabilities in tertiary education (the VET and university sectors)?

- What institution-level learning supports are being implemented that enhance participation and successful learning for tertiary students with disabilities?

- What are perceived to be the effective and useful individualised adjustments and institution-level learning supports being implemented within VET and university programs?

Context and method

To establish the context for this research report, the role of disability services in tertiary education institutions is briefly outlined, followed by a description of the research methods.

Disability services in tertiary education

Tertiary education institutions (including TAFE [technical and further education] institutes and universities) typically offer specialist disability services in order to meet their obligations to students with disabilities under the Disability Discrimination Act (Commonwealth of Australia 1992, 2005). To register for these disability services, students are required to provide documentary evidence of a disability or ongoing health condition and how their access and/or study may be affected.

Each educational institution has its own methods of organising supports for students with disabilities, but the functions of disability services typically include:

- registering eligible students for learning supports when students with disabilities request assistance

- assessing how each registered student's access or study is affected in order to determine the student's learning support needs

- identifying suitable reasonable adjustments to reduce the impacts of the student's disability on studying and thus to enable the student's course participation on the same basis as students without disabilities

- developing a learning support plan (sometimes known as a learning access plan) for each registered student, which typically contains information about the reasonable adjustments and supports to be provided to the student

- resourcing the reasonable adjustments identified as necessary for registered students, where applicable. For instance, this could include the loan of equipment (for example, screen-reading software, audio recorder), reformatting of course materials to accommodate specific impairments (for example, large print, audio recording), or the provision of in-class and tutorial support (for example, note takers)

- liaising with teaching and general staff to facilitate the implementation of reasonable adjustments for registered students

- referring registered students to other appropriate services available to students, such as for learning/academic support, counselling, accommodation or financial advice, and so on.

Study methods

This research investigated the provision of supports for students with disabilities in tertiary education from the perspectives of 25 tertiary students and ten staff with disability services or course leadership roles. Qualitative methods were used and involved a semi-structured interview with each participant. Interviews were then transcribed and thematically analysed (Liamputtong 2009).

Participants were recruited from two tertiary institutions, a university and a TAFE institution, each with multiple campuses in the same geographic region. Both institutions provided specialist disability services through policy frameworks aligned with the Disability Discrimination Act (Commonwealth of Australia 1992, 2005). Thus, their policies articulate principles for ensuring students' rights in regard to equal opportunity and the elimination of discrimination on the grounds of disability or medical conditions. Both institutions have also developed disability action plans for the purpose of reducing barriers to participation and promoting inclusion of staff and students with disabilities.

Tertiary students with disabilities

Twenty-five students enrolled in a TAFE or university course participated in a face-to-face or telephone interview. All of these students experienced a disability or an ongoing health condition, but registration with a disability service was not an eligibility criterion for participation in this study.

Multiple strategies were used to invite the participation of students with disabilities, including posters and flyers placed in common areas of the campuses, in specialist disability services offices and on the student portal. Emails and text messages with information about the study, and research team contact details were also forwarded by the specialist disability services to registered students.

Table 1 describes the demographic profile of the 25 students who participated in this study and the impairments and illnesses they reported. Several students reported experiencing multiple health conditions and impairments. Students reported accessing supports from a range of on-campus study skills, specialist disability and counselling services, as well as from health practitioners and personal care services.

Participants were recruited from two tertiary institutions, a university and a TAFE institution, each with multiple campuses in the same geographic region.

Table 1 Student participants' demographic information

Demographic variables		Number of students
Number of participants		25
Gender	Male	11
	Female	14
Age range		18–67 years
Country of birth	Australia/Oceania	20
	Asia	3
	UK	1
	Unspecified	1
Location	TAFE	20
	University	5
Current course	Certificate	12
	Diploma	3
	Degree	10
Study area	Creative arts and humanities	9
	Sciences	5
	Health and community services	5
	Apprenticeship and traineeship	3
	Business	2
	General education	1
Attempted tertiary study before	Yes	16
	No	9
Highest education level achieved	Up to Year 11	7
	Year 12	8
	Certificate/diploma	7
	Degree	1
	Postgraduate degree	1
	Unspecified	1
Years of tertiary study	Less than 1 year	5
	1–4 years	9
	5–10 years	5
	Over 10 years	6
Self-reported impairment or illness*	Mental illness	8
	Physical impairment	7
	Ongoing health condition	7
	Learning disability	5
	Sensory impairment	2
	Neurological impairment	2
	Acquired brain injury	1

Note: * some students have more than one disability; hence this column sums to more than 25.

Specialist disability services staff

Seven staff working part-time or full-time in disability services roles were interviewed face to face or via telephone. They were recruited through emails containing information about the study, which had been forwarded from the research team to eligible staff by student

services managers in each organisation. All disability services staff participants were female. Their prior experience of supporting students with disabilities in a tertiary institution ranged from one to more than five years, and their employment backgrounds were in disability employment or training services, day programs or advocacy services.

Teaching staff

Three teaching staff with curriculum or course leader roles participated in interviews. Similar to the specialist disability services staff, they were recruited via email invitations from the research team, forwarded to eligible staff by student services managers or departmental heads, and to teaching staff who had previously expressed interest in the study. All participants were women, employed full-time, with five to 15 years prior experience in teaching and coordination roles and supporting students with disabilities within these roles.

Semi-structured interviews

Individual telephone or face-to-face interviews were conducted in two phases, as outlined below.

Phase one: individual interviews with students and disability services staff

In phase one, semi-structured interviews with students and specialist disability services staff gathered information about the nature and perceived usefulness of the reasonable adjustments offered to students with disabilities.

The student interviews included questions and prompts focused on: student experiences of tertiary studies, the reasonable adjustments accessed by them and their usefulness, as well as their views on how their learning support needs could be best met. The disability services staff interviews included questions about their experiences of supporting tertiary students with disabilities, the range and usefulness of the reasonable adjustments offered to these students, and other strategies that might improve supports for these students. See appendix A for phase one interview guides.

Phase two: individual interviews with curriculum/course leaders

In phase two, semi-structured interviews, which were informed by the results of phase one, were held with the teaching staff. They explored curriculum/course leaders' experiences of supporting students with disabilities. Their views were also sought on: the institution-level learning supports that are or might be useful for these students; and the strategies put forward by students and disability services staff in phase one interviews.

Study limitations

Student participants were not equally drawn from the two institutions: university students with disabilities are less well represented than those engaged in VET courses, possibly due to less diverse recruitment strategies being used in the university. The two-phase participant recruitment approach was advantageous in allowing the issues and ideas raised by students and disability services staff to be explored with course leaders. However, while the disability services staff are well represented, the second phase of recruitment was less well timed in relation to teaching staff responsibilities, yielding a lower response rate from

This qualitative research pools knowledge from tertiary students with disabilities, disability services staff and course leaders.

teaching staff than was originally intended. Despite these limitations, this qualitative research pools knowledge from tertiary students with disabilities, disability services staff and course leaders to provide valuable insights into the processes and challenges involved in the provision of the individualised reasonable adjustments and institution-level learning supports that suit these students' needs. The voices of learners are recognised as important for improving educational practices (National VET Equity Advisory Council 2011). This research highlights the need to bring together student, disability services and teaching perspectives in order to address the particular complexities of providing learning supports for students with disabilities.

Supporting tertiary students who experience disability: a complex practice

Supporting students with disabilities to participate in tertiary education involves identifying students' support needs as well as negotiating and implementing suitable learning supports.

Supporting students with disabilities to participate in tertiary education is complex in practice. It involves not only identifying students' support needs, but also negotiating and implementing suitable learning supports. Multiple people need to be engaged and contribute to the complexity and variability in how these processes are navigated by students, teachers and specialist disability services staff.

The research findings presented in this report address the nature of individualised reasonable adjustments, along with the institution-level learning supports identified and the processes involved in their provision.

These findings draw on interviews involving current students with disabilities, specialist disability services staff and teaching staff in course leader roles at two tertiary education institutions: a TAFE institution and a university. To protect identities, student and staff voices are presented without identification of their institution. Overall, there were more similarities than differences in the learning supports available and the processes for supporting these students across the two institutions.

Table 2 provides an overview of the key themes presented in this section of the report.

Table 2   Themes and categories from the data

Theme	Individualised and institution-level learning supports identified by participants
Category	Sub-category
Individualised reasonable adjustments	Strategies involving use of technologies
Institution-level supports	Inclusive practices

Theme	How disability support fits into student life
Category	Sub-category
Finding and accessing disability services	
Deciding on what reasonable adjustments are suited to a student's needs	Knowledge and skills to respond to students with diverse issues
	Information-gathering from multiple sources
	Developing learning support plans in collaboration with students
Who negotiates the implementation of reasonable adjustments and supports?	Negotiating reasonable adjustments directly with teaching staff – a disability services role
	Negotiating learning supports – it's the student's responsibility
	Negotiating as a collaborative responsibility
	Barriers to negotiating reasonable adjustments and supports
Using reasonable adjustments and supports in practice	Determining the usefulness of adjustments and supports
	Barriers to using adjustments and supports

Individualised and institution-level learning supports identified

This section describes the types of learning supports that participants in this study identified.

Individualised reasonable adjustments

Many types of individualised reasonable adjustments were used by student participants in this study, as summarised in table 3. They reflect the diversity in these students' learning support needs. Some of these reasonable adjustments were used across the learning activities, assessments and learning environments in which the students participated; others were more specific to the learning tasks or assessments in students' courses and the types of knowledge, skills and competencies being taught and assessed. The most commonly reported reasonable adjustment was flexibility in assessment due dates.

Table 3   Examples of reasonable adjustments used by student participants

Area of support	Examples of reasonable adjustments
Flexibility in assessments	Extended assessment due dates Changed assessment formats (e.g. oral rather than written presentation) Submitting assessment tasks via email rather than at the institution
Changed exam conditions	Provision of a computer rather than writing by hand Use of a scribe Allowance of food and beverages Extended exam time Location moved to a quiet room to decrease anxiety
Provision of adaptive equipment	Screen reader Audio recorder Adjustable seating Mobility scooter Specialist software
In-class supports	Note takers Participation support
Other academic supports	Individual tutoring Information in varied formats (e.g. audio books, online)

The individualised reasonable adjustments listed above are similar to those reported elsewhere (for example, Cotton 2010; Redpath et al. 2013; Schreuer & Sachs 2014). However, this study also revealed that the lines were blurred between individualised reasonable adjustments to accommodate disability, students' own strategies for managing their studies, and institution-level learning supports. For instance, students described seeking flexibility with assessments (for example, timing, methods) through disability services, practices that are also negotiable with teaching staff by any student. Furthermore, students' interviews tended to focus on their strengths, such as persistence and patience, as well as the skills and personally developed strategies used to manage student life, focussing less on difficulties resulting from impairments or illnesses.

> I find that anything I have difficulty with I just keep persevering until I master it.
>
> (Student)

Students' strategies for managing their studies combined not only the use of individualised reasonable adjustments but also the use of non-specialist equipment (for example, wheeled

bags for carrying books, and audiobooks instead of printed books, mobile devices), online information resources, reduced study loads and other stress-management strategies, tutorial support and study skills development (the latter being an institution-level learning support).

Institution-level learning supports

Some institution-level learning supports were identified as useful for students with disabilities by participants, although their value seemed more recognisable when they failed. In particular, students, disability services staff and course leaders all identified strategies involving the use of technologies as useful in supporting these students, whereas inconsistency in their use and some students being less familiar with technology were identified drawbacks. In addition, students, disability services staff and course leaders noted examples of inclusive support built into classes and courses to assist students with and without disabilities to learn and to manage their courses. Resource constraints were considered the main factor restricting their wider implementation.

The usefulness of technologies and inclusive educational practices in supporting students with disabilities are each illustrated below.

Strategies involving the use of technologies

Online technologies such as learning-management systems were identified as particularly useful because 'students have got it wherever they are' (Course leader). For students with disabilities, online course materials enabled more flexible access: to reduce the impact of mobility issues, to review materials after classes, and to pace their own learning.

> I find that, I'm on the internet every day so I mean before that, I don't know what I would have done. I think the fact that things are so much online these days, it's a real benefit because it takes away a lot of the physical aspects of things, you don't actually have to go anywhere, if you've got your iPad or computer or whatever, you are there.
>
> (Student)

> I just pace myself 'cause I know it's going to be up [online] to go back and look at, so if it is just getting too much I can stop and listen. (Student)

Yet, the reported variability in whether and when online course materials were available meant students could not fully rely on these learning supports:

> I really like to review my notes after class but sometimes these do not go up for 2—3 weeks — that means I am always more behind than I would like to be. (Student)

> It's just hit or miss, some are good, some are bad … Providing all information electronically before class, even after class … that would be fantastic because people can go over things themselves, people can put it through their computer systems and maybe have it speak to them and just repetition as well … Pretty much that would solve a lot of support needs. (Disability services staff)

Besides the online technologies offered by the institutions, disability services staff and students identified mobile devices as useful tools for supporting students to organise their schedules, develop study skills, or record, watch and listen to lessons of different kinds, without students being singled out.

Technology-based learning supports can be a barrier to meeting diverse students' learning support needs, reinforcing the need for a range of approaches.

You can do anything with a [smartphone], you can record, set reminders … And then all your aps that you can get, that can help you with your reading and writing, all the programs … there's so many useful things out there.   (Disability services staff)

Some subject areas are probably easier to do this than others. With all your tradies, it's always easy 'cause you can show them, they can record it, like on your [smartphone], you can record and watch it later … how to build an engine or a chair that they are putting together … just by getting students to do what it is that they are hearing.   (Disability services staff)

[Recording] becomes a benefit in a lot of ways … instead of trying to remember what we did, I can listen and go last week we learnt all this and remember it … I've started to use it for recording additional information or teacher's feedback … of what we're doing. So I'm using it more than what was initially intended.   (Student)

Nevertheless, technology-based learning supports can also be a barrier to meeting diverse students' learning support needs, which reinforces that a range of approaches to learning support remains important:

Everything is geared towards the Anglo 20 — something with multiple devices; we are not all like that.   (Student)

Students with a second language and especially refugee students who maybe have not had a lot to do with computers, for them that environment is really foreign.
          (Course leader)

Student learning, there's a lot more been put online but ultimately I don't know, sometimes I think you need more of a face-to-face assistance. (Disability services staff)

Inclusive practices

The inclusive supports that were identified as assisting students with and without disabilities to learn and to manage their courses included: having more than one teacher or team teaching in classes; support tutorials on topics known to be challenging in particular courses; and teaching staff accessibility. Broadly, these reflect the inclusive approaches to teaching identified by participants, in which respect for different ways of participating and learning were emphasised:

Having that realisation that people learn differently and being able to … knowing how to teach everyone.   (Disability services staff)

Students with disabilities and course leaders appreciated these kinds of teaching and learning approaches as not singling students out, but actively supporting them. Nevertheless, for staff, resource constraints limit the use of these approaches in practice, despite the benefits.

Some classes we have extra teachers … She comes in and asks if anyone needs a hand and that's really helpful, so we don't have to speak up in front of the whole class or anything.   (Student)

Having a floating person: I think I would do it like this anywhere … A lot of young people, whilst they don't tick the box [for disability support], they would have needs that would be helped by someone just saying, how are you going, just putting that little feeler out there.   (Course leader)

> That's just the one area that stands out to me, that yes, that's what we need, but no, it's not going to be as readily available as we would like. (Course leader)

Other efforts to inclusively support students focused on additional classes that supplemented regular teaching sessions, as well as the teaching of stress management and coping mechanisms for students both with and without disabilities:

> Usually it's just small groups that turn up and they might just require that I go over some of the concepts again, maybe work through a few examples slowly … cover what is really important and talk to them, maybe get them to work through a few example questions, make sure they are really understanding it and then keep doing that until they are more comfortable … it's terrific. (Course leader)

> We've involved student services to do workshops for us on wellbeing and stress and those sorts of things … so trying to get them as a whole group though … it's not to identify [particular students] so we've tried it different ways. (Course leader)

Students, course leaders and disability services staff also regarded teachers making themselves accessible, such as by regularly expressing an 'open door policy' policy, as important in assuring students that they could seek help: 'It is a genuine offer …' (Student). However, a noted barrier to teaching staff accessibility was the predominance of part-time and casual teaching staff: 'especially at smaller campuses who are fly in fly out' (Disability services staff).

Lastly, the development of built-in flexibility in courses, such as offering options among learning activities or assessment methods, was suggested as an area where more might be done to support diverse students at the tertiary institutions involved.

> A guideline of what's reasonable … if something like that was sent to teachers, instead of them having to engage with us … they could just go into class, going here's some reasonable adjustments, they don't have to be diagnosed with disability or registered with us, they just have to be someone in class who says they would like to be assessed in a different way. (Disability services staff)

> Multiple assessment methods … we do accommodate within the assessment method with different students, trying to make sure that it is still fair, valid, reliable, all of those things as well, but we probably don't look at that as much as we should. (Course leader)

How disability support fits into student life

The provision of disability supports involves four key processes:

- finding and accessing disability services

- identifying what learning supports are suitable

- negotiating how learning supports will be implemented between students, disability services staff and teaching staff

- using reasonable adjustments and supports in practice.

In this section, each of these processes is described to highlight how students, disability services staff and teaching staff are involved, and the factors contributing to their complexity in practice.

> **The development of built-in flexibility in courses was suggested as an area where more might be done to support diverse students.**

Students reported valuing the willingness of disability services and teaching staff to cater for their individual academic and personal needs.

First, to contextualise these processes, we briefly outline the students' reasons for studying and engaging with disability services, as well as disability support staff approaches to their role.

The students who participated in this study reported enrolling in TAFE or university courses for varied reasons. Some students viewed education as a pathway to employment or further study, while a small number of students were using education to retrain for another field of employment following an injury or illness that prevented their return to previous work. Other students described tertiary studies as a way to gain 're-entry into the world' after a period of illness; to regain lost confidence and life skills; or to relieve boredom and as a way to keep occupied during the day. These reasons are similar to those reported in other VET studies (Cocks & Thoresen 2013; Nechvoglod & Griffin 2011).

Most students in this study were not attempting tertiary studies for the first time. Some had up to 15 years of enrolment in tertiary study, including many successes and failures. Some had completed a certificate, diploma or degree, but typically students described being unsuccessful in completing previous courses due to the impacts of their disability on their learning, participation, study skills, or because of finding the transition to adult learning environments difficult. As a consequence, disability services played a vital role in most student participants being able to undertake their current courses.

Overall, students reported valuing the support received from disability services, as well as the willingness of disability services and teaching staff to support them and cater for their individual academic and personal needs. For some students, the practical assistance was particularly important, whereas others valued the supportive relationships they built with disability services staff.

> Well [the disability services staff member] is really onto everything so if someone is not going to show up or something, she always tells you and reminds you that your appointment with your tutor is the next day … And when I've gone in there and talked to other people in the office like the other [disability services staff], they are really nice and not cranky about you taking up their time as a lot of people can be. (Student)

Disability services staff too viewed their role as an important part of the institution's support for students with disabilities and as involving the direct and indirect support of students through educating teachers and promoting their service during enrolment, orientation and open day events.

Disability services staff approaches to supporting students were discussed in differing ways. They included: monitoring, encouraging, empowering, requiring student self-management, and complying with institutional requirements. Figure 1 provides illustrative examples.

These approaches were evident in staff comments about their interaction with students and their negotiation and implementation of reasonable adjustments; they also seemed to reflect varied values and beliefs about disability, caring, and the role of disability services, the latter which may contribute to the variability in what they do and how students experience disability support.

Figure 1 Disability services staff approaches to supporting students

Monitoring	• I always say to my students, I'll be like your mum. To begin with, I'll call you every week, ask how are you going, talk to the teachers, are they okay, and once we've got it right, everyone is happy, support workers, students, teacher, then I'll just start fading back.
Encouraging	• I don't know, just to be really encouraging I guess, to say 'you can do it, you can do it'. I had to stand back a lot.
Empowering	• I wasn't going to stop her from doing something because I thought it was a bad idea because that's not my job. My job is to empower and enable and get the hell out of the way.
Requiring self-management	• Yeah and it is getting the students to be proactive so [the disability services staff] are on the same boat with saying they need to learn to be independent and proactive.
Complying	• The [institution] works within a framework, a legal framework in relation to anti-discrimination and the role of the [institution] is to make sure that's implemented and that students are not discriminated against in relation to their disability or medical condition.

Finding and accessing disability services

The students and staff who participated in this study reported variability in eligible students' access to and registration with disability services. The contributing factors include: reasons for registration, choices made regarding when to register, awareness of the service, and managing the registration process.

The typical reasons for students to register with disability services were because of worries about their lack of educational experience; to ensure they would cope and that their teachers would understand their circumstances; or because they had previously used disability services. For similar reasons, students often chose to disclose their disability directly to the teaching staff with whom they felt comfortable: to explain the impact of their disability; to give teachers a 'heads up' in case their performance began to slip; and to ensure teaching staff understood their potential difficulties and did not think badly of them.

> I wasn't sure how I'd get on with it, how I'd cope, so I approached [disability services] first to see, to let them know this is how it is; to let the teachers know that if I have trouble getting assignments in because of my … lack of brain function and disability. It's far better they should know that than for me to struggle through and pretend [because] then the teacher would think negative thoughts: 'Why aren't you getting this done?' It's better for them to know than [for me] to try and bluff it.   (Student)

The students described registering with disability services at differing times during their courses: those with pre-existing conditions either registered at enrolment or adopted a 'wait and see' approach to see how they managed their course without disability support; others sought assistance in response to emerging difficulties or changes in ongoing conditions.

The students who sought support at enrolment, disability services staff and course leaders all thought that students' disclosing their disability on their enrolment form should prompt contact from disability services; they all also noted that this anticipated contact did not necessarily eventuate, or at least not consistently.

> If someone is filling out the form and putting down that they have a disability, perhaps a first point of contact to say, 'Here's what we have and this is what you can do to

Feeling conflicted about registering with disability services, students sometimes chose to disclose only necessary information to obtain support.

help with your education while you're here if you want to'. Because I probably personally wouldn't go looking into things to see what's there because I would assume there's nothing there anyway and your mind is always on something else when you're studying.

(Student)

On the enrolment form, there's a box you can tick that indicates you have a disability and that is meant to be a prompt for enrolment staff to say, 'If you do need support, you can contact these people, disability support service', or even give them the form. That doesn't always happen though. A lot people slip through the cracks.

(Disability services staff)

The enrolment office was meant to give [students] the information [about disability services). So there's the extra step ... if they have ticked the box and haven't got the form, or have missed the spot [to tick the box], then we have to go back and back track.

(Course leader)

Alternatively, students described adopting a 'wait and see' approach or reviewing their support needs in an ongoing way. Sometimes issues arose whereby the student 'never saw that coming'. Hence, students may have no option but to seek support when and if issues arise. Disability services staff, on the other hand, expressed a preference for students to disclose as early as possible to minimise difficulties.

Generally I just try and do it myself, be independent, just as anyone else would be, until there is something like a roadblock, something I can't overcome myself, then I'll try and find out a way of getting around it or fixing it.

(Student)

I never saw that coming. Now it has, I have to go, 'Can I do it?' and if I can, how can I do it, to modify it to my abilities?

(Student)

The problem is we often get registrations at the end of the semester when someone is really struggling because they haven't disclosed and then obviously you are trying to provide a semester or a year's support, trying to get this person to pass when it could have been done a lot easier. I respect someone thinking they can do the course without it, but that's the flip side of it.

(Disability services staff)

Less commonly, student participants reported not being aware of the disability services available at TAFE and university and consequently they had not registered with their service. This is despite, as previously noted, disability services staff efforts to promote these services, and teaching or department staff prompting students to register with disability services.

I actually didn't know it existed. To be truthful ... and I didn't seek it out ... I just went and my first concern is enrolment, getting in, started studying, and then if an issue arises then I'll tackle it.

(Student)

Feeling conflicted about registering with disability services, students sometimes chose to disclose only necessary information to obtain support, viewing not doing so as a greater risk. The disclosure of further details was considered 'none of their [disability services staff] business'. This is consistent with the challenges of disclosure and student preferences not to do so identified in previous VET research and elsewhere (Magnus & Tøssebro 2014; Schreuer & Sachs 2014; Venville & Street 2012; Venville, Street & Fossey 2014). Yet, this study also identified that issues such as anxiety or communication difficulties can make approaching and registering with disability services more challenging. Furthermore, some students from

non-English speaking or refugee backgrounds may have difficulties accessing relevant community supports from which to obtain evidence of a disability.

> A coordinator applied for disability support for this particular person … and they had to be tested … have a quite obvious learning disability for it to go anywhere. The process involved, the forms, doctors' reports … it's a huge amount of work to take that on board … you really have to find someone who is prepared to want to assist those young people. Of course they often don't have any family or anyone who can read or write or even understand, or maybe even culturally want to do anything about it. So taking it to the next step can be extremely difficult. (Course leader)

Deciding on what reasonable adjustments are suited to a student's needs

Once students have registered with disability services, deciding on what reasonable adjustments may be suitable depends on: disability services staff knowledge and skills to respond to students with diverse issues; information-gathering from multiple sources; and developing learning support plans in collaboration with students. Each of these issues is further illustrated below.

Knowledge and skills to respond to students with diverse issues

All interviewed disability services staff were involved in supporting students with diverse issues and in assessing the impact of diverse impairments on students' academic skills and study requirements. The diversity of student issues was both a source of interest and complexity in their work. Consequently staff felt tested at times by the challenges that service provision presented.

> I really enjoy what I do. I think I like it in the sense that it is quite varied and yes you are working with students who have various disabilities, but you're also working with departments and you're working with case managers and psychologists and psychiatrists, depending on the student and what their support needs are. So I find that quite interesting. (Disability services staff)

> I really don't think a model of providing telephone interviews is always appropriate. I know sometimes it's okay and some students quite like it because they want to remain anonymous, but I think really, the best practice model should be to give students the choice … I've had to refer people back [to the on-campus support] because they've been too complex for me to handle by phone. (Disability services staff)

Table 4 presents the range of difficulties related to studying, from the point of view of students and disability services staff. As shown, students described their studying difficulties in detailed and varied ways, drawn from their own experiences, whereas disability services staff described the impacts of disability on students in more generalised terms. This supports the notion that students are expert in their own situations, albeit not necessarily in what reasonable adjustments and supports are available, or what might suit their learning needs. Further, it underscores the need for collaboration between a student and disability services staff to effectively identify the student's learning support needs.

Faced with diverse student issues, some disability services staff talked about building networks with their counterparts at other tertiary institutions and attending conferences to keep up to date with potential adjustment strategies. However, most spoke of relying on

each other's varied backgrounds and knowledge to provide informal skill development, debriefing and support.

> Sometimes we need to debrief … so it's always good having other [disability services staff] around to debrief. I think for me that's the biggest thing, as long as I have somebody I can go, 'This is what I'm thinking, does that make sense or anything I forgot, that I didn't ask or should have asked … Have I crossed all my T's, and dotted all my I's?' (Disability services staff)

Table 4 Difficulties related to studying: student and disability services staff viewpoints

Area of impact	Student viewpoint	Disability services staff viewpoint
Physical	Difficulty walking long distances between classes and/or up stairs	Difficulty managing the physical aspect of campus
	Sitting uncomfortably at high science benches or classroom tables	
	Sitting uncomfortably at non-adjustable computers or on non-adjustable seating	
	Inability to carry heavy books and laptop computers	
	Difficulty managing the physical study tasks	
	Difficulty writing	Difficulty writing
	Inability to easily use provided equipment, such as accessing the lift using a scooter	
	Inability to attend class fieldwork	
Sensory	Difficulty hearing the teacher	
	Difficulty reading computer screens, textbooks, and notes on the board in class	Inability to see notes on the board in class
Cognitive	Poor short-term memory	Poor short-term memory
	Poor concentration	
	Distraction caused by pain, fatigue or anxiety	Distraction
		Difficulty following instructions
		Difficulty understanding abstract material
Psychological	Difficulty handling stress	Difficulty handling stress
	Anxiety leading to inability to cope under pressure	Social anxiety
	Feeling overwhelmed by the amount of work	Difficult with managing emotions
	Loss of confidence	
	Crying	Attention seeking
	Fear for personal safety	Laziness
Learning/ study skills	Reduced learning habits and skills due to interrupted schooling	Poor time-management and organisational skills
	Poor literacy skills	Poor literacy skills
	Messy handwriting	
	Tasks take longer due to pain or fatigue	
Treatment/ medical	Missing classes due to medical appointments	
	Drowsiness due to poor sleep and/or medication	Being late for class due to morning drowsiness
	Poor concentration due to psychotic symptoms	
	Medication causing a lack of creativity	

Information-gathering from multiple sources

To gather information about students' learning support needs, disability services staff typically consulted the students themselves and accessed written advice from health practitioners. Some disability services staff also reported liaising with a student's department and teaching staff to determine the requirements, content and style of his or her classes.

We meet with the student and ask them hundreds of questions to find out how they best learn, what's going to work for them, what has worked in the past and what hasn't worked in the past and basically write everything down, look through their reports for whatever has been suggested, depending on what the report is, and then from our meeting and from what's been put in the report, put something together.

(Disability services staff)

I'll call the department and say okay this is the timetable, which classes are going to be the ones you think are going to be tricky. So if the student has learning difficulties and [with] these three classes, there is going to be a lot of writing, a lot of theory, I'll put support in there. But if these two classes are practical and they are putting computers together, let's try them being independent in there and just assess it.

(Disability services staff)

When consulting with students with mental health issues in particular, disability services staff reported that the assessment of need may go beyond learning needs, to assess risk, to motivate, and to provide social support. They reported these aspects as time-consuming but vitally important to the success of the student's participation and safety for all concerned.

Developing learning support plans in collaboration with students

Once a student's needs were identified, disability services staff at both participating institutions described developing individual learning support plans collaboratively with students. This is a complex process, one that is influenced by a number of factors: students' experiences of using supports; making allowances for fluctuation in their support needs; staff and student negotiations of need; students' perceived pressure on available resources; and students' preferences about disclosure of their learning support plans to teaching staff.

From a disability services staff viewpoint, students with disabilities coming directly from high school seemed to have a better understanding of what supports might be available and were well equipped to develop their learning plans with disability services. Perhaps this was because they understood the latest technology to suit their needs or knew how to advocate for their needs. Unsurprisingly, those students with limited prior experience of disability services typically reported being less knowledgeable about the resources available to them and relied more on the disability services staff to identify potentially suitable reasonable adjustments when creating learning support plans.

I've had some really good students that have been really proactive with what they need and I think that's when it works best, because everyone is so different and I can make suggestions to somebody but I think the best results we get [are] when somebody, through their experience of school, knows exactly what it is they need.

(Disability services staff)

When creating learning support plans, disability services staff suggested more reasonable adjustments tended to be documented than were always necessary, and that students' support typically reduced over time as they settled into student life. By contrast, students viewed these strategies as important and helpful, acting as a safety net if they became unwell.

It all really depends on what the students need, so we always look at what we could put support in, but then if they are settling in and feeling okay, we can ... start fading

Developing individual learning support plans collaboratively with students is a complex process influenced by a number of factors.

Disability services staff viewed their ability to identify suitable reasonable adjustments as being dependent upon having adequate information about a student's disability and its impacts.

back and making sure they still feel secure and safe and things like that.

(Disability services staff)

I hope I'm not going to need [adjustments like extended assessment due dates]; it just depends on how my health is. I might have a really good week, do everything, get everything done and it might be right before everything is due so if I get it all done, but I don't know how my body is going to … what it is going to do.   (Student)

Students and disability services staff sometimes differed in their opinions of learning support plans. The reported differences in viewpoints mostly related to the suitability of offered reasonable adjustments. For example, a student with a hearing impairment refused a note taker as he reported that he would feel uncomfortable and different, and instead requested a tutor to assist him 'with the bits that [he] missed'. While highlighting that reasonable adjustments need to be individualised, this also illustrates the need for ways to negotiate these differing student perspectives.

In turn, disability services staff expressed frustration that sometimes students did not adequately disclose their learning needs and did not accept offered adjustments, with subsequent negative consequences, such as increased difficulties with their studies or having to withdraw from a course. Thus, disability services staff viewed their ability to identify suitable reasonable adjustments for students as dependent upon their having adequate information about a student's disability and its impacts, both medically and from the student's viewpoint.

Ultimately it's in relation to how students see themselves and what a student discloses. And sometimes people forget about that. People concentrate on the disability, but they don't concentrate on the fact that the person sees their disability or condition in a very different light … I need to be guided by his [medical] document and what the student reports … the adjustments that were developed, using the health practitioner's statement and self-reporting, was to do with anxiety … but that, I don't think is enough for that student.   (Disability services staff)

Students also reported reluctance to ask for more assistance because they perceived disability services to be overwhelmed with the number of students requiring support, and were concerned that other students with disabilities may miss out. They based this view on having had difficulties in contacting disability services staff, the timeliness and consistency of the support provided, or being encouraged to try classes without assistive equipment initially to determine whether it was actually needed.

I think the sheer amount of students with disability at [the educational institution] might be a bit too much to handle, too many cases at once and somebody slips beneath the radar unintentionally. Maybe that's a reason why things don't get done that should be done.   (Student)

[Disability services staff member] mentioned the voice recorder [and] … study assist at that point in time. She mentioned these things but said, 'This is in week one, see how you go with everything and then contact me by the end of the week to see what you need'.   (Student)

Lastly, when disability services staff and students are developing learning support plans, students choose what information is disclosed and to whom. This too influences what plans can be made. For instance, when students allow disclosure of information about their

disability and learning support plans to a department or course leader, but not to individual teaching staff, this permits some reasonable adjustments to be made, such as the use of an audio recorder. In comparison, when students permit information to be shared directly with teaching staff, disability services staff considered they had greater scope in what reasonable adjustments and support could be planned.

> There are some students who don't disclose to [teaching staff] and yet we work around that, but we always will try and encourage students to let us disclose even if the line is, 'Can we tell them you are registered with us and not tell them what your particular condition is?' Because a big part of what we can do is talking to the [staff], if they say, 'No you can't tell the [staff]', then we are really limited in what we can do.
>
> (Disability services staff)

The perspectives of the students and disability services staff given above each shed light on the complexity of identifying students' learning support needs and subsequent adjustments. To reduce some of the potential tensions, one disability services staff member suggested that guidelines could be developed to facilitate student understanding of their options and teaching and disability services staff understanding of what is reasonably expected of them. Some resources (for example, Western Australian Department of Training and Development 2013; Queensland VET Development Centre 2010) already exist to guide institutions wishing to develop such information for students and staff.

Who negotiates the implementation of reasonable adjustments and supports?

Once developed, learning support plans need to be communicated, and their implementation negotiated with teaching staff in the relevant department. The disability services staff and students in this study expressed varying views about who should negotiate the implementation of learning support plans: the disability services staff through negotiations with teaching staff; the student's responsibility to negotiate with teachers; or negotiation as a collaborative responsibility.

Issues in relation to negotiating learning supports between students, disability services staff and teaching staff also arose; for example, if responsibility for negotiation was imposed on the student without the student's involvement in determining the approach taken; and if the potential concerns of teaching staff about implementing reasonable adjustments were not addressed. These findings underscore that disability awareness among staff and effective communication and collaborative relationships are essential for negotiating reasonable adjustments (Claiborne et al. 2011; Magnus & Tøssebro 2014; Miller & Nguyen 2008), as further illustrated below.

Negotiating reasonable adjustments directly with teaching staff – a disability services role

The majority of disability services staff interviewed in this study viewed negotiating with teaching staff as part of their overall role. They viewed their role as one of guiding teaching staff to make adjustments and they reported being cautious when making suggestions about how to implement reasonable adjustments, rather than directing the teaching staff on what to do in their teaching.

> [Teachers] have their set way of doing things, but I don't think anyone has ever said no to some of the stuff we've suggested. I always say if they take two or three things out

Disability awareness among staff and effective communication and collaborative relationships are essential for negotiating reasonable adjustments.

of the list that we've given them, that's going to make a huge difference to a student. I try not to bombard them with 20 things anyway, but if you put a couple of things in that report and they are the main things the students need support with, then, as I said, if they take a couple of things, the student's probably halfway there already.

(Disability services staff)

Disability services staff reported expending a great deal of time on providing information about specific disabilities and explaining needs in detail because, in their experience, teaching staff did not always have much understanding of disability. They also reported that being able to build relationships with departments or individual teaching staff assisted in implementing adjustments for student with a disability. Disability services staff often talked about 'good departments', where they were trusted and not expected to explain students' needs in great detail.

That particular [department] is wonderful so they very much took the stance of they don't understand disability, so they were happy to take my lead … I guess that's one of the good things about being a [disability staff member] for a longer amount of time, you get to know people; they trust you a bit more.   (Disability services staff)

Negotiating learning supports – it's the student's responsibility

Other disability services staff took the view that it was the student's responsibility to negotiate their learning support plan with teaching staff, guided by the belief that students were independent adult learners with responsibility for their own learning. They viewed this as empowering for students, or as facilitating students to build independence by taking control of negotiating their own adjustments.

So then [the recommendation] gets into the learning plan, and it is the student's responsibility. The other philosophy that the centre has is that it tries to support students to become, if they are not already, independent adult learners. So they are responsible for their learning as well, so they have their learning plan with the recommendations.   (Disability services staff)

Students also sometimes preferred to negotiate reasonable adjustments and supports with teachers themselves: most often this was due to dissatisfaction with previous arrangements made by disability services or to ensure satisfactory arrangements for themselves. For instance, one student described several situations where details of reasonable adjustments, such as identifying a different exam room and providing a regular tutor, were overlooked by the disability service, leaving him at risk of failing classes. As a result, he preferred to negotiate with teaching staff directly. Similarly, another student described negotiating parking arrangements directly with campus security.

I go to [another campus] that doesn't really have a car park as such; all it's got is a few little spaces in the front, probably no more than ten spaces. So I thought that was going to be a bit of a problem but the lady who does the security and maintenance down there, she was very accommodating. I think she was very sympathetic 'cause she said to me, 'My partner has a disability as well so we know what it is like parking' … so she made a sign up for me so that I can park my car.   (Student)

Similar to disability services staff who negotiated reasonable adjustments with teaching staff, students too spoke of their relationships with teaching staff as necessary for negotiating these arrangements.

In reality, it's probably not the student plans that help the [teaching staff] understand because they might not get the student plan, or they might not be able to follow through the instructions for whatever reason. So I think rather than the student plan … it's more … personal connection. Just bothering to talk to a student for five minutes after class … and [my] just saying 'I have a disability and I'm coming in with a scooter, so could you please bear that in mind for future occasions just in case we run into an accidental scenario where I'm running 20 minutes late for class'.   (Student)

Negotiating as a collaborative responsibility

Several student participants indicated that their preferred approach would be a collaborative meeting if it were offered. Only one student described such a meeting between herself, disability services staff and teaching staff to negotiate how reasonable adjustments could be implemented in her classes in order to meet her needs.

Well, because, with anatomy, 'cause that's my nemesis [the disability staff member] came with me to see the coordinator … and we discussed my negative experiences with anatomy, what things have changed 'cause it's a new coordinator, structured differently. So just that moral support having him there, he's never come with me to a meeting before but because he knew that was my Achilles heel he came with me and we met about 15 minutes before we went to see the coordinator so we could discuss what things he needed to put back on track, like what did I want to get out of the meeting and he took a few notes and was able to steer the conversation that way.

(Student)

Hence, while students in this study did not all share the same views as each other, they wanted their preferences about who should negotiate reasonable adjustments taken into account. They sought a collaborative approach, aligned with Redpath et al.'s (2013) conclusion that the student, disability services staff, and teaching staff need to be part of a network of communication designed to encourage a conversation about adjustments, with the student at the centre of discussion. This type of collaborative approach may also facilitate ongoing review of a student's supports, so as to accommodate the changes in learning requirements and in the student's own circumstances that occur during their studies.

Barriers to negotiating the implementation of reasonable adjustments and supports

Students felt that negotiating their own reasonable adjustments had several limitations. First, students expressed some concern that the onus being placed on them to negotiate their own learning supports at TAFE or university added another stress at a time of difficulty. Sometimes students also preferred disability services staff to communicate with teaching staff on their behalf when their own difficulties, such as anxiety, were barriers to negotiating learning supports. Consequently, when students need to initiate this conversation, they can be left feeling unsupported (Redpath et al. 2013).

Sometimes the process of trying to get an extension actually for me outweighs just staying up until two in the morning and doing it … It forces more work, more form filling, more sitting down with [teaching staff]. They don't have the time to meet with you anyway; you don't have the time, if you've got issues cropping up, to say I can't do it, I need two more days.   (Student)

Students expressed some concern that the onus being placed on them to negotiate their own learning supports added another stress.

Many teaching staff in the sector are part-time or casual employees and may have limited access to disability awareness training.

> I reckon the [disability service] could probably email a student's [teachers] with a copy of this [learning plan], instead of purely relying on the student to go up to the [teachers] and tell them. Like I'm happy to go up and speak about it but someone else might not be.
>
> (Student)

From the perspectives of students and disability services staff, the teaching staff who struggled to make adjustments also seemed to have less understanding of disability. In these circumstances, disability services staff described a number of actions they initiated to increase teachers' understanding and to bring about change for the student. Importantly, where necessary, this included: making teaching staff aware of the legal framework that requires the provision of reasonable adjustments; sharing information about disability; and discussing how to implement relevant adjustments (also termed 'accommodations' in quotes below).

> There were times when I've had to tell [teachers], give them my learning plan and stuff like that. Most of them have been really good with it. Some of them have been a bit unacceptable in their response to it, but I had one [teacher] tell me that he doesn't believe in anxiety disorders, he thinks I should just calm down.
>
> (Student)

> Their program coordinator was very good … So one of my roles was to spend a couple of weeks going out to classes … sending the person emails saying: 'I'm here if you would like to talk about anything, strategies, you've probably already seen the confidential report but here it is again', using our fact sheet, those kind of things. And I think there was only one [teacher] who was just flat out, didn't want to engage in any [discussion].
>
> (Disability services staff)

> [With] all these accommodations and requests we make, some [staff] are fantastic, no problem, within reason … Some can be quite a challenge … I've had discussion with departments about the education standards … how providing these accommodations is actually a legal requirement. So I've certainly had those discussions and written big long-winded emails quoting the standards in it, to highlight to [teaching staff] because, in their defence, I don't think all are aware.
>
> (Disability services staff)

From participants' viewpoints, several factors contributed to this perceived lack of understanding among staff about disability and the legal requirements related to the provision of reasonable adjustments. These included: teaching staff workloads; their experience of working with students with disabilities; and the ease with which reasonable adjustments can be implemented. In addition, many teaching staff in the sector are part-time or casual employees and may have limited access to disability awareness training. A lack of understanding in this area also underlies negative attitudes towards accommodating disability (Ryan 2011), which have been previously reported in the sector (Claiborne et al. 2011; Magnus & Tøssebro 2014; Miller & Nguyen 2008). Thus, the above finding underscores the importance of improving staff knowledge of disability and how to apply the Disability Standards in Education (Commonwealth of Australia 2005), and the need for accessible disability awareness training.

Using reasonable adjustments and supports in practice

Students in this study typically reported that reasonable adjustments and supports enabled them to participate in learning more fully. As already presented (see table 3), they provided many examples of their use of reasonable adjustments. Students and disability services staff

defined the effectiveness of learning supports in different ways. As far as the students were concerned, a better understanding of their own needs, the ability to cope, enjoyment and doing their best in studying were markers of effective learning support; disability services staff emphasised students completing courses or postponing study until better prepared as indicators of the success of learning supports. Some students also recounted physical and attitudinal barriers to their use of the recommended reasonable adjustments and consequent difficulties participating in their courses. Tertiary institutions might usefully consider gathering information about each of these issues when evaluating the effectiveness of the learning supports provided to students with disabilities.

The participants' views on the usefulness of reasonable adjustments and support, as well as the barriers to their use in practice, are illustrated below.

Determining the usefulness of adjustments and supports

Overall, the students and disability services staff differ in how they define the usefulness of reasonable adjustments and learning supports. From the students' viewpoints, the successful outcomes of using reasonable adjustments and supports related to their personal development, experiences of studying and achievements in their courses. For instance, students spoke of gaining a better understanding of their own needs (for example, where to direct attention), an increased ability to cope, and more enjoyment of studying as a result of effectively tailored supports (for example, individual tutoring from someone the student could relate to).

> She got me a [in-class support person] study aid, and that. It's like, I think I know enough about it now to cope on my own and I actually think I know enough on my own to help other people. (Student)

> I think [individual tutoring] is grouse, it's just the best thing and … I like it that they've given me a chick … around my age. One time she couldn't show up and they gave me somebody who was doing … conveyancing or something and she was 19 or 20 and I felt uncomfortable with that. So I like it that they originally … with somebody who was age appropriate. (Student)

Other successful reasonable adjustments and supports from student viewpoints were those that allowed students to keep up with the study at the same rate as their peers and to complete their courses by not only passing but achieving to the best of their ability.

Disability services staff described successful outcomes as a result of students' use of adjustments and supports in somewhat different terms. From their viewpoint, useful reasonable adjustment and supports led to students either completing courses or postponing study until they were better prepared.

> She finished, she stuck through the whole course, it's only a six-month course, completed everything except the computer component, and she completed it satisfactorily. (Disability services staff)

> The [teacher] was actually really lovely. I think everyone tried really hard for quite a while and it probably went on a little bit longer than what it should have. We should have just said, 'Look, this really isn't the time for you to be studying right now' 'cause it really wasn't. So he's coming back this year, hopefully he's in a better place and hopefully everything else around him has settled down. (Disability services staff)

Barriers to using adjustments and supports

Students and staff invest considerable expertise and effort in identifying suitable reasonable adjustments and supports, yet sometimes they were unsuccessful. The barriers to using adjustments and supports identified by participants were predominantly physical or attitudinal, or they related to the ways in which disability supports were implemented.

The physical barriers to using reasonable adjustments described by students and disability services staff included: situations in which the technology proved unsuitable for the intended use; equipment not arriving on time; students were not trained in using it; the provided equipment created other difficulties; or access to study resources was restricted. For instance, one student described being given a swivel chair, which then needed to be taken by the student to multiple classrooms on different levels of a building; another student spoke of significant physical restrictions in studying due to needing assistance to use the lifts and the login screens on computers.

> It's really hard to use the lifts, because the lifts are really high. I can't reach, I asked the librarian or somebody who is around to do it and also when we go to [another] building, we've got to use a key and I can't get close enough to get in to do it.
>
> (Student)

Students also reported attitudinal barriers to reasonable adjustment use. These reflected the attitudes of others, but also students' wishes not to draw attention to themselves or to be singled out in classes. In particular, students with less visible disabilities reported feeling judged by staff and other students when using recommended disability supports, and so were reluctant to use them. For example, a relatively straightforward strategy for managing pain, such as standing up in class, was seen as 'not polite' and too exposing by one student.

> I did try that … but it was like people going 'why are you sitting there?' because you're obviously not disabled, because [my disability] isn't obvious.   (Student)

In addition, the success of reasonable adjustments and supports may be assumed to allow students to decrease their use of adjustments over time. Yet, when students' impairments remain unchanged, reducing their disability support can have negative consequences for their participation and educational outcomes. As the following student described, his tutor support was withdrawn, not because of any change in his mobility, but because his academic results improved. However, he finds he can no longer sustain these achievements without this support.

> When I started, I was given one of those disability tutors to sit with me and go over assignments and projects and so on for two hours on a weekly basis … and they said I'm entitled to that tutoring because of my lack of mobility … Then later in the second semester when I finished my first subject, they said 'let's have a look at your results, okay A, B, okay, that's too much. Because of your results you no longer need a tutor'… [Removing the tutoring] is not causing me to fail, but it is causing me to lose serious marks … it's not you know two or three per cent, it's the difference between a B and an A, or a B and a C and that, when it comes to your student record, is big in terms of being able to do honours, or being able to put that on your resume.   (Student)

Some kinds of reasonable adjustments and supports were also seen as more likely to identify or single out students with disabilities, which students and disability services staff alike found challenging. Thus, students spoke of wishing that the presence of in-class support

staff (for example, note takers) were less obvious to the other students. Disability services staff and course leaders for their part sought to provide in-class supports in the background to respect students' preferences. Students spoke of disliking attention being drawn to their disability through the way in which teaching and support staff seemed to treat them differently from other students, for instance, rarely challenging them or asking them to speak in class. In turn, a disability services staff member spoke of struggling to 'be invisible' and provide in-class support.

> Another student who had a disability noticed it as well. [The teacher] might go round to different people in the class and for most of the time really avoid me. And at some points he might almost go to everyone else in the class except me, and so it was highlighted more and more. But then other people see that I have an aid in one of the classes as well. It slightly concerns me sometimes 'cause I feel like some of the other ones who don't like the oral, some might get annoyed, 'Why are you picking me and not him?'
>
> (Student)

> I had a floristry student who really didn't want anyone to know I was there to help her, but it's really hard to be invisible and students work out that you're not another student sometimes. So I had to encourage her without, it was really hard, to sit in a group, to do an assignment in a group … Yeah so that was really difficult, that didn't work out.
>
> (Disability services staff)

Both students and disability services staff made a range of suggestions about how student learning support could be improved. Examples of these suggestions are shown in table 5 and have been taken into account in developing the practice examples outlined in the final section of this report.

Table 5   Student and disability services staff suggestions for improvements to student support

Improvements to:	Student suggestions	Disability services staff suggestions
Teaching practice	Teaching staff available for extra tuition	Inclusion principles to be consistently considered in course development.
Disability service	Collaboratively negotiated learning support plans with students, disability staff, teachers and department Disability services based at every campus	More robust processes for student follow-up in disability services. Clearer understanding of the legal framework guiding the responsibilities of disability staff and teaching staff.
Teaching staff support and training	Reduce the workload on teaching staff so they have more time to spend with individual students	Development of guidelines for teachers to facilitate creating reasonable adjustment options. Provision of positive reinforcement and recognition when teaching staff make adjustments.
	Access to advice as well as training about disability for teaching staff	Provision of training in inclusive teaching practices. Provision to all teachers, including sessional staff, of access to disability training.
Other supports	Creation of peer-support groups to build students' capacity to support each other	Improvement of physical access around campus.

✓ Practice recommendations

The practice recommendations address the two broad approaches to the provision of student learning supports in the tertiary education institutions considered in this report: individualised reasonable adjustments; and institution-level learning supports.

Individualised reasonable adjustments

From the viewpoints of students, disability services staff and course leaders, the processes that underpin the use of disability supports are complex to navigate, with many factors contributing to this complexity in practice. Figure 2 illustrates the range of these factors related to the individual student, the study or classroom context, the institutional supports, and the interactions between them. It also shows the intersecting factors that need to be taken into consideration to identify, negotiate and implement reasonable adjustments to support tertiary students with disabilities. Based on this report, three key areas for action are highlighted, with the aim of improving the identification, negotiation and implementation of reasonable adjustments:

- accessing disability supports

- adapting tasks and spaces, and strengthening student skills

- strengthening teacher knowledge and skills to enable work with individual students with disabilities.

Each is presented below with good practice examples to illustrate how they can be addressed.
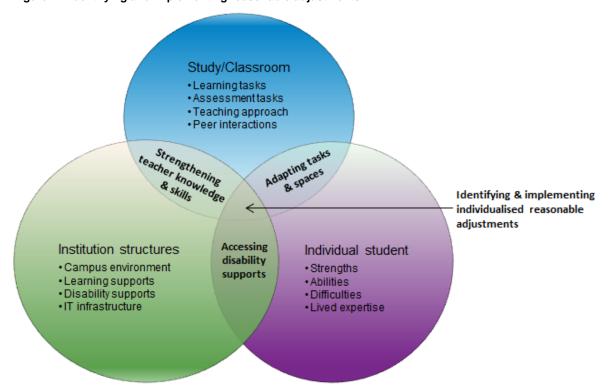
Figure 2 Identifying and implementing reasonable adjustments

Accessing disability support

These good practice recommendations address clarity of information, transparency of processes and understanding of how to access disability support. Table 6 outlines priority areas for action to address the variability in student awareness of and access to disability supports, along with good practice examples.

Table 6   Accessing disability support – areas for action and practice examples

Priority areas for action	Practice examples
At the point of enrolment, students may believe that disclosure of disability on the enrolment form leads to services contacting them. This may or may not be the case.	A clear statement is provided on the enrolment form to indicate why information about disability is collected, and how it will be used. A clear statement is provided on the enrolment form about how to access information about disability support services. Separate requests are available on the enrolment form for students to: disclose a disability if applicable and they wish to; and to opt for this information to be shared with disability support services to enable the disability service to contact them.
A student may develop an impairment or health condition at any stage during their course, that is, not all conditions are pre-existing.	Information about disability services is clearly accessible by multiple means (e.g. at the point of enrolment, via online systems accessed by students, on institution websites, and through advertising flyers or brochures located with other student learning services, such as the library).
The evidence of a disability or health condition required to register with disability services may be misunderstood by some students or seem burdensome due to issues of cost, time or access to a health practitioner for those experiencing other disadvantages (e.g. language, financial).	Clear information is available (e.g. in brochures, on websites) about the nature of the information required to be eligible for disability support services, with examples of how this information can be obtained. Brochures available from disability services provide information about access to low-cost services for obtaining registration documentation. Students may be more able to articulate the impacts of their disability on learning than a health practitioner, as well as how this may change or fluctuate over time, so the student's perspective of the learning impacts is crucial.

Adapting tasks and spaces

These good practice recommendations emphasise collaboration between the student, disability services and teaching staff in order to identify and implement the required reasonable adjustments. Table 7 outlines priority areas for action, along with examples of good practice to address the identified issues.

Table 7   Adapting tasks and spaces – areas for action and practice examples

Priority areas for action	Practice examples
Roles taken in communicating and negotiating reasonable adjustments with teaching staff may vary, but are not necessarily clear to all involved.	Students choose the degree to which they are involved in liaising with teaching staff. With the student's consent, learning support plans are shared with relevant teaching staff via email. A collaborative meeting between the student, disability staff, and teaching staff may be arranged to discuss the reasonable adjustments proposed by the disability service and student.
Reasonable adjustments offered to students may not always match their need or fit well with the learning and assessment tasks required.	Students meet with disability services staff as early as possible in their unit or course if experiencing difficulties or if their needs change. Students' prior experiences guide the choice of adjustments, in order to take account of previous strategies that have worked well, and those that have been less successful. Collaboration between the student, disability staff, and teaching staff (email, phone, or face-to-face meeting) occurs, in order to match reasonable adjustments to the type of learning and assessment tasks in the student's unit/course.
A student's disability may be inadvertently disclosed to peers and teaching staff by the presence of in-class support staff, such as note takers.	Students choose whether or not to sit with their note taker in class, and where they wish the note taker to undertake this role.

Strengthening teacher knowledge and skills to work with individual students with disabilities

The good practice recommendations emphasise the provision of information to teaching staff on the nature of a specific student's disability, its impacts on the student's learning or how to implement specific reasonable adjustments. Table 8 outlines priority areas for action to strengthen teacher knowledge and skills about a student's disability and the associated reasonable adjustments, together with good practice examples.

Table 8   Strengthening teacher knowledge and skills to work with individual students with disabilities – areas for action and practice examples

Priority areas for action	Practice examples
Teaching staff typically demonstrate a willingness to support students, but may lack knowledge about the impacts of disability on the individual student's learning.	With the student's consent, written general information about the impact of the student's disability is provided to the relevant teaching staff by the disability service.
	With the student's consent, disability staff will brief a teaching team with general information about the student's disability.
	The student chooses the extent to which s/he is involved in information-sharing with relevant teaching staff or teaching teams.

Creating institution-level learning supports

Institution-level learning supports have the potential to enhance all students' learning experiences and perhaps decrease the need for students to be singled out or to disclose a disability in order to receive support. At least some learning supports identified in this report as useful to students with disabilities can be organised at an institution level to support all students, thereby potentially reducing the demands placed on disability services.

Figure 3 illustrates that potential institution-level learning supports may be identified by considering the intersections between the diversity of the student populations, their learning contexts and the institutional supports services. Based on this report, three key areas for institution-level action are identified with the aim of expanding inclusive learning contexts in tertiary education:

- recognising and respecting difference
- strengthening inclusive curriculum design and practice
- creating safe and welcoming online and campus spaces.

Each is outlined in table 9, together with good practice examples to show how they can be addressed.

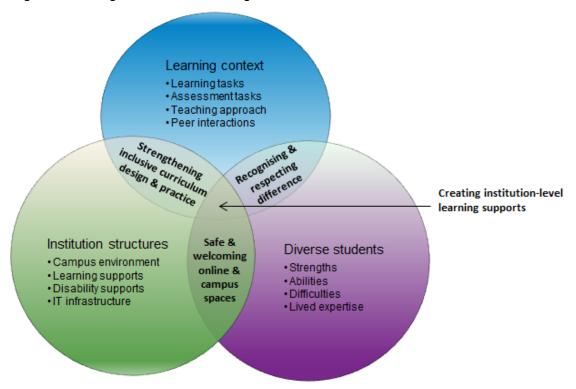**Figure 3   Creating institution-level learning contexts**

Table 9   Institution-level action areas and practice examples

Priority areas for action	Practice examples
Recognising and respecting difference in learning	Clear statements in course information about the types of learning activities and assessment tasks involved, so that students can make informed choices on enrolment.
	Clear study guides (e.g. weekly, modular) so that students know what to expect and what preparation for each week/module is required.
	Timely provision of all written information for classes to students (e.g. online) prior to classes, so students have access to and can become familiar with content.
	Presentation of information in a range of modes where possible (e.g. making in-class materials available online, filming practical tasks for students to review).
	Creation of flexible options for assessment and varied assessment tasks that tap into a range of skills (e.g. oral, written, observation, practical demonstration of competency).
	Timely and constructive feedback to students on assessment tasks.
Strengthening inclusive curriculum design and practice	Learning resources available in accessible formats.
	Consistent use of accessible formats for online learning platforms.
	Automated systems to remind students of key dates (e.g. smart phones, email reminders linked to online portal calendar).
	Active coordination and monitoring of the timing and pacing of assessment tasks across concurrent subjects/modules within a course.
	Accessible disability awareness training for teachers that enhances their awareness of the impacts of disabilities on learning, classroom participation, and use of online systems.
	Training for teachers that enhances their knowledge and skills for inclusive instructional practice and in particular enables the participation of diverse students in group-based activities and discussions.
	Support staff mingling with students in class, providing support more inclusively at times when the student with a disability is not requiring direct support.
	Peer-mentoring programs which actively engage students with disabilities as mentors and promote peer mentoring as inclusive of students with disabilities.
	Involving students with disabilities, disability services staff, curriculum support and teaching staff so that their respective expertise informs how peer networks, support services, and staff training are developed and delivered.

The students and disability services staff who participated in this study also called for greater disability awareness amongst teaching staff.

Priority areas for action	Practice examples
Safe and welcoming online and campus spaces	Websites of educational institutions in accessible formats.
	Websites include easily located information about eligibility and services available from the disability service.
	Campus-based support services for students, including disability support, co-located (e.g. creation of a student support hub).
	Adequate and safe physical access around campus (e.g. adequate parking bays, lighting).
	Information about room location and accessibility visible to all students when self-selecting a tutorial group.
	Visible presence of students with disabilities as part of the educational institution's student population (e.g. inclusion of pictures of students with visible disabilities in generic marketing material for the educational institution and its courses; active inclusion of students with disabilities in open day and course information events).

For resources on reasonable adjustments for disability and universal design in the tertiary sector, see the work of the Western Australian Department of Training and Workforce Development (2012), the Queensland VET Development Centre (2012) and Kilham, Zilber and Christian (2014).

The Australian Disability Clearinghouse on Education and Training (ADCET) provides information and resources about inclusive educational practice; disability awareness training; and reasonable adjustments for disability, for teachers and learning support and disability services staff working with students with disabilities in post-secondary education and training (see <http://www.adcet.edu.au/>).

Conclusion

This report highlights the complexity of providing supports for students with disabilities in tertiary institutions and the factors contributing to this complexity in practice. Taken together, the views of the students, disability staff, and curriculum leaders suggest the need for stronger collaboration with teaching staff to facilitate supports that are relevant and effective for a student's particular course. Such collaboration may also serve to identify where institution-level learning supports are applicable and in turn potentially reduce some of the demands for specialist disability services. The students and disability services staff who participated in this study also called for greater disability awareness amongst teaching staff. Educational institutions typically provide some staff training in this area, so it may be that more targeted training related to making reasonable adjustments in teaching practice is required.

Student support services are assumed to have positive impacts on students' study experiences, course retention and successful completion. Yet, neither the outcomes of implementing reasonable adjustments nor institution-level learning supports for students with disabilities are known. This report indicates that students find some supports successful and others less so; they also expressed varied views on what defines their usefulness. Further research in this area could investigate the student, course and cost-effectiveness outcomes of the various kinds of supports offered.

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✏️ Appendix A

Phase one interview guides

Phase one: Student interview

1 Demographics

Gender	Male		Female		
Year of birth					
Country of birth					
Studying at university or TAFE	University		TAFE		
What course are you doing?					
How long have you been studying at TAFE/university?					
Have you attempted a TAFE or university course before?	No		Yes. Course name(s):		
What is your highest level of education?	Up to yr 11	Year 12	Certificate/diploma	Undergraduate degree	Postgraduate degree

2 Exploring person's disability/ongoing health condition

Which of the following best describes your disability/ongoing health condition?

Physical or mobility disability

Visual disability

Hearing loss

Mental illness

Neurological disability

Acquired brain injury

Learning disability

Speech impediment

Long-term medical condition

Other (please specify)

3 Exploring the experience of studying at university/TAFE

What has been your experience of studying at university/TAFE?

> *Prompts:*
> a Challenges faced due to disability
> b How the challenges were addressed?
> c Who do you go to at university/TAFE for help to deal with the challenges?

Have you shared information about the impacts of your disability or ongoing health condition with your teachers or any other university/TAFE staff?

   a How did you make that decision?

   b If yes, what type of information did you decide to share?

   c What response did you get?

4 Exploring adjustment strategies

What kinds of adjustments or strategies, if any, have you used to support your learning?

Prompts:

   a Strategies for managing physical spaces of university/TAFE, such as building design

   b Strategies for managing social situations, such as being able to participate in course/student activities

   c Strategies for dealing with cultural issues, such as lifestyle, customs and traditions

   d Strategies for dealing with temporal aspects of study, such as flexibility of learning tasks, or the timing of assignments

   e How did you decide what to do?

   f What types of resources have you used in making decisions?

   g To what extent do you think developing strategies and adjustments is your responsibility?

   h What difference did these strategies make? What worked/What was most useful?

5 Exploring experience of inclusively-designed educational systems

In your opinion, what strategies used by any of your teachers to support you could, in fact, be useful to support all students, for example, email about due dates?

Prompts:

   a Strategies to support all students that have helped you

6 System-wide supports

What do you think works well in the university/TAFE sector in supporting students with disabilities or ongoing health conditions to undertake their course?

Prompts:

   a What can be improved?

   b What works to support teaching staff?

   c What can be improved for teaching staff?

Finish point: Is there anything else you would like to talk about, from your perspective, in regards to supporting students with disabilities or ongoing health conditions to undertake their course?

PHASE 1: Disability support staff interview

Preliminary blurb: We are exploring University and TAFE Disability Support staff experiences of assisting students with a disability or ongoing health condition to undertake their course. In particular, we would like to hear your experiences of how you have supported students to undertake a course, and seek your views about how to best respond to the study needs of these students, and the needs of the staff who are teaching them.

1   Demographic information

Gender	Male	Female
Do you work at University or TAFE?	University	TAFE
What is your position role?		
How long have you worked here?		

2   Exploring participant's support role

Please describe your role in supporting students with disabilities or ongoing health conditions?

> *Prompts:*
> i   How do students generally make contact with you?
> ii   What types of disabilities or health conditions do students present to you with?

3   Exploring experiences of supporting students with disabilities or ongoing health conditions.

Thinking about a particular student with a disability or ongoing health condition whom you have worked with, what kinds of adjustments or strategies did you recommended to support this student in their learning?

> *Prompts:*
> i   Strategies for managing physical spaces of university/TAFE, such as building design
> ii   Strategies for managing social situations, such as being able to participate in course/student activities
> iii   Strategies for dealing with cultural issues, such as consideration of lifestyle, customs and traditions
> iv   Strategies for dealing with temporal aspects of study, such as flexibility of learning tasks, or the timing of assignments
> v   Resources required
> vi   How were the strategies implemented?
> vii   Were these strategies useful/effective?

4 Exploring experiences of inclusively designed educational strategies.

Tell me about the kinds of strategies that you are aware of for all students that, in fact, could be used to support students with disabilities or ongoing health conditions, e.g. early warning of non-engagement?

> *Prompts:*
> i   Strategies known for students with disabilities or ongoing health conditions that could support all students
> ii Thoughts about students disclosing disability or ongoing health conditions

5 System-wide supports

What do you think works well in the university/TAFE sector in supporting students with disabilities or ongoing health conditions to undertake their course?

> *Prompts:*
> i   What can be improved?
> ii   What works to support teaching staff?
> iii What can be improved for teaching staff?
> iv   What works to support disability support staff?
> v   What can be improved for disability support staff?

6 Finish point: Is there anything else you would like to talk about, from your perspective, in regards to supporting students with disabilities or ongoing health conditions to undertake their course?

$ NVETR Program funding

The National Vocational Education and Training Research (NVETR) Program is coordinated and managed by NCVER on behalf of the Australian Government and state and territory governments. Funding is provided through the Australian Department of Education and Training.

The NVETR Program is based on national research priorities and aims to improve policy and practice in the VET sector. The research effort itself is collaborative and requires strong relationships with the research community in Australia's universities and beyond. NCVER may also involve various stakeholders, including state and territory governments, industry and practitioners, to inform the commissioned research, and use a variety of mechanisms such as project roundtables and forums.

Research grants are awarded to organisations through a competitive process, in which NCVER does not participate. To ensure the quality and relevance of the research, projects are selected using an independent and transparent process and research reports are peer-reviewed.

From 2012 some of the NVETR Program funding was made available for research and policy advice to National Senior Officials of the then Standing Council for Tertiary Education, Skills and Employment (SCOTESE) Principal Committees. They were responsible for determining suitable and relevant research projects aligned to the immediate priority needs in support of the national VET reform agenda.

For further information about the program go to the NCVER Portal <http://www.ncver.edu.au>.