The exploratory study in this paper investigates the learning-to-learn needs of students with disabilities in vocational education and training (VET) settings by discussing both the literature regarding all students, and the experiences of practitioners in this sector. It argues that flexible delivery in VET settings increasingly requires learner responsibility and self-direction in learning, which presumes a level of metacognitive skills. The overlap between the concepts of flexible learning, lifelong learning, responsibility for learning, metacognition, and self-direction in learning are raised. The study finds that in learning to learn, the match should be considered critical between any student's applied level of self-direction in a particular learning situation and the level of self-direction opportunities built in by the teacher or the curriculum. This is considered to have implications for the initial and ongoing training of VET teachers, who themselves need self-directed learning opportunities in order to be better able to demonstrate and discuss these skills with their students. The study identifies that many students with disabilities would be able to be supported to learn to learn in mainstream courses if all VET curricula allowed opportunities to introduce or develop metacognitive skills. However, there would still be a need for special, individual metacognitive training programs to cater for students with certain disabilities. Research required in a number of areas is identified. Overall, the findings of this study raise concern for all students in the current VET environment, not just those who have a disability.

Introduction

There is currently a trend towards more flexible approaches to the delivery of vocational education and training (VET) (Butterworth 1995; Candy 1991; Crombie 1995; Evans & Nation 1993; Fisher 1995). Flexible learning is often a preferred option for many people with disabilities, because it allows them to manage aspects of their learning such as the time and location of study. There are some 18 per cent of the Australian population who identify themselves as having a disability (McLennan 1995) and many of these are in the age range of people accessing the VET sector, through a public or private provider. Many writers consider that flexibility in delivery effectively has the potential to enhance the opportunities of individuals, especially those who are disadvantaged, by breaking down some of the barriers in traditional educational
provision (ANTA 1996; Dundas 1994; Johnson 1995; Moran 1996; Newell & Walker 1991; OLTC 1995). But other authors are starting to question whether learners are appropriately prepared and supported for such changes (e.g. Candy 1991; Crombie 1995) and whether flexibility itself—both within the workplace and within the educational environment—is appropriate (e.g. Foley 1995). One fear is that in flexible educational delivery taken to its extreme, students can be individualised to such an extent that they have reduced opportunities to acquire or enhance the skills peripheral to learning (Sieminski 1993).

An understanding of issues about learning is indivisible from the self-management of learning, as applied within a traditional formal educational setting and particularly within an open learning environment (Bradbery 1991; McNamara 1991; Radloff 1990). While researchers and writers have reported on social considerations, political dimensions, and practical applications of increasingly flexible delivery (e.g. Danaher 1994; Jarvis 1993; Tait 1994), the metacognitive implications of this construct need to be investigated and understood (Radloff 1990).

While there has been some debate in recent decades about the self-directedness of adult learners, this is more an argument of degree and interpretation (Brookfield 1986). The development of lifelong, self-directed learners should be a key objective of all education and training providers (NBEET 1996a). As well, increasing students’ responsibility and self-management in learning through existing educational provision is to be a focus in VET (NBEET 1996b). Links between the concepts of flexible learning, self-directedness in learning, personal responsibility for learning, and metacognitive skills and abilities are apparent. Flexibility in VET delivery requires a level of learner responsibility and control to self-manage or self-direct learning. Such personal responsibility for learning assumes a level of metacognitive skills. The intensifying need for students to apply ‘learning-to-learn’ skills in increasingly flexible educational encounters raises concern in particular for the growing number of students with disabilities who are undertaking VET programs. This concern initiated the research project, ‘Students with disabilities in vocational education and training: Current issues in learning to learn’ sponsored by AusTAFE Inc. This paper outlines the methodology of this project, then addresses the current
educational issues identified as relevant to the VET sector and VET students, particularly those with disabilities; and the responses to those issues of VET disability student and practitioner representatives. This is followed by a discussion of those findings and conclusions.

Definitions

Flexible delivery and open learning are terms which are often used interchangeably. Open learning was defined by the Senate Inquiry into Open Learning report as ‘an approach … based on the needs of individual learners … [which] gives students as much control as possible over what and when and where and how they learn’ (Australian College of Education 1995, p.10). Flexibility in educational delivery requires students to take a greater part in managing their learning, requiring a greater emphasis on the learning process in open or flexible learning (Atkinson & McBeath 1990; Brew & Wright 1990; Goldman 1992). Terms such as personal responsibility for learning, self-direction in learning, self-management, learning autonomy and the like are confusing and overlapping concepts (Boud 1988b; Brockett & Hiemstra 1991; Candy 1991; Fisher 1995), and there has been long-term confusion and differences in approach in this field of adult education.

Brockett and Hiemstra (1991, p.9) define self-direction in learning as ‘a combination of forces both within and outside the individual that stress the learner accepting ever-increasing responsibility for decisions associated with the learning process’. And the self-directed learning process has been described as comprising a cycle of identification of learning needs; development of learning goals; preparation of learning plan; location of resources; implementation; evaluation of results and process (Guglielmino & Guglielmino 1991). One aspect which self-regulated learning theories have in common is that ‘students can be described as self-regulated to the degree that they are metacognitively, motivationally, and behaviourally active participants in their own learning process’ (Manning & Payne 1996). A common feature, then, is that metacognitive skills and abilities (as defined below) are necessary for learners to begin to be self-directed and autonomous in learning, and to increasingly become more so in different and new learning situations.
(e.g. Boud & Griffin 1987; Brockett & Hiemstra 1991; Candy 1991; Galbraith 1991b; Guglielmino & Guglielmino 1991).

Like the other terms in this discussion which are open to various interpretations, *metacognition* has steadily expanded its meaning until it currently includes 'competence in planning, monitoring, self-questioning and self-directing activities' (Ashman & Conway 1993, p.35). *Metacognitive processes*, then, imply autonomy in problem solving and learning (Biggs & Moore 1993). For the purposes of this study, *learning-to-learn* is taken to include the above metacognitive abilities which reflect those outlined by many authors as required for self-directed learning, as already discussed.

**Methodology**

This exploratory study comprised two parts:

- literature review
- focus group

The aim of the study was to identify issues regarding learning to learn in current literature, from the perspective of adult students with physical or sensory disabilities VET situations. The focus questions of the research were:

- What are the current issues identified in recent research on learning to learn?
- What are the implications of these for adult students with disabilities in VET?

The focus group comprised practitioners who are current disability specialists with an individual background of broad VET experience. All 24 organisations advertising under ‘Training and Development’ in the local telephone directory were invited, as well as 16 education and training specialist disabilities support staff. These included all facets of VET: partly and fully public funded as well as private training providers; specialists in training of people with disabilities as well as generalists; and providers of preparatory through to diploma-level...
programs. All participants were encouraged to bring a student with a
disability to participate in the discussions. A search was conducted of
literature after 1990 from Austrom: AEI, Education Index and ERIC,
using the descriptors learning to learn, metacognition, self-directed
learning, learning readiness plus adult, study skills, problem-based
learning, action learning, adult learning, adult education, reflective
learning, open learning, Meichenbaum, Conway. Some secondary
sources were traced from references in those sources. The resulting
documents were reviewed by the researcher and this summary was
forwarded to participants prior to the focus group meeting. At that
meeting, the participants clarified and discussed issues in the literature
in the framework of a series of questions. All discussion was tape­
recorded and summarised by the researcher. A draft of the outcomes of
the focus group, together with conclusions and recommendations, was
then distributed to the participants for alteration or confirmation. The
report reflects the feedback received. Only mainstream VET provision
was considered. The study did not include students with intellectual
disabilities where these students are supported through special
educational provision; nor did it include learning outside formal
institutions or in workplace training. Representatives from the adult and
community education (ACE) sector were unable to attend at the last
moment. The balance of practitioners to students in the focus group was
considered disproportional.

Current issues in learning to learn

Various theories on adult learning and knowledge have been put
forward in recent times, with a shared characteristic being the
distribution of responsibility for learning to the learner (Boud 1988a;
Brockett & Hiemstra 1991; Knowles & Associates 1984). This paradigm
has a number of facets, with varying levels of empowerment of the
learner. However, the overall aim is toward lifelong learners (Candy
1991; NBEET 1994; NBEET 1996a; NBEET 1996b). Two common features
are the recognition of self-direction in learning and the application of
metacognitive skills to the process, both of which require a level of
learner responsibility and independence. These current issues from the
literature will be discussed both generally, and from the perspective of
their implication for students with disabilities in VET, with the overlap
between these issues being apparent. These emerging themes then form the basis of questions raised in the focus group discussions.

Lifelong learning

In the First Global Conference on Lifelong Learning in Rome, Ball (1994 cited in NBEET 1996b, p.2) stated that ‘the key principles of government provision (of education and training) in the future must be the primacy of personal responsibility for learning’. Lifelong learning and self-directed learning can be viewed as reciprocal in that the former aims to equip people to continue education beyond formal schooling, and the latter is the most common way for adults to undertake learning throughout their lifetime (Candy 1991). While it is recognised that a lack of prior educational opportunities may have had an impact on students with disabilities, and alternative or complementary pathways to lifelong learning may be appropriate, the literature does not identify the implications of this for adult students with disabilities in a VET setting.

Learner responsibility

Current concepts in adult education, such as flexible learning, transformative learning, lifelong learning, metalearning, experiential learning and self-directed learning have, as their basis, recognition of the learner’s role in the learning process. This emphasis on the learner and his/her responsibility in the learning transaction is increasing, with a perceived change from teacher-centred to learner-centred learning (Hiemstra & Sisco 1990; Simpson 1995). The average person is credited with taking responsibility for about 70 per cent of the subtasks involved in intentional change, that is, in the choice of the change and the planning and implementation of strategies (Brockett & Hiemstra 1991). Therefore, learners need to be aware of how to take that responsibility (Herbeson 1991). However, the literature does not relate this to students with disabilities who are studying in the VET sector.

Writers with various aims discuss how to empower adults in their learning, and highlight critical reflection or critical thinking (Brookfield
1986; Brockett & Hiemstra 1991; Simpson 1995) as necessary to develop the pre-requisite skills and attitudes (Evans & Nation 1993; Loughlin 1996). Such emphasis on reflection in learning is specifically identified as necessary for students with disabilities (Preece 1995), and is also in line with government approaches to lifelong learning (NBEET 1996b). In order to achieve these outcomes of responsibility in learning, where self-direction as a teaching strategy is appropriate for learners it should be promoted; but not at the expense of those who are not yet ready to be self-directed (Candy 1991). Nor do economic considerations on the delivery of programs in a self-managed manner relieve educational providers from their ethical responsibilities to respond to the educational needs of their learners (Brockett & Hiemstra 1991).

**Metacognitive skills and abilities**

It is necessary for learners to have or acquire metacognitive skills of planning, deciding, monitoring, evaluating and terminating (Biggs & Moore 1993) if they are to make their own decisions about their learning and to take responsibility for aspects of that learning. By making students aware of various learning strategies available to them, metacognitive awareness and increasing responsibility are facilitated (Kuhrt & Farris 1990; Simpson 1995). Therefore ‘metacognitive experiences should be implemented by teachers into virtually every learning activity with students of every age’ (Brockett & Hiemstra 1991, p.152), an approach supported by other writers (e.g. Brookfield 1986; Candy 1991; Galbraith 1991a; Knowles 1990). However, certain teaching approaches and classroom strategies can limit the development of metacognitive skills in some students, particularly those with disabilities (Biemiller & Meichenbaum 1992). To balance this, adult educators are challenged to accept the opportunity and responsibility for facilitating learning which encourages the practice of reflection and action (Burge & Haughey 1993; Loughlin 1996). While some researchers report that ‘training in metacognition, though demanding and long-term, is effective’ (White & Mitchell 1994, p.36), it should be noted that metacognitive training has achieved mixed results for students with certain disabilities or lower ability (Ashman & Conway 1989), and the emphasis is required on how educators can facilitate such self-
regulatory skills (Meichenbaum 1990). Metacognitive abilities allow students to become aware of their specific learning needs, to make decisions about fulfilling those needs, and then to review the process and their progress (Biggs 1985; Manning & Payne 1996; Murray-Harvey 1993). However, again the literature does not indicate the applicability of such comments to adult students with disabilities in the VET sector.

**Self-directedness in learning**

Self-direction in learning is accepted as a well-researched dimension of andragogy. It is a continuum (Brockett & Hiemstra 1991; Brookfield 1986) with learners progressing along this path as they mature in age; however, an individual's maximum level of self-directedness is not always practised in all learning situations (Candy 1991). Nonetheless, the benefits of pursuing this approach to learning are apparent with researchers having found a link between self-directedness and life satisfaction; and other research showing that improvements in students' memory, comprehension, problem-solving abilities, and self-control have been influenced positively by metacognitive experiences (see Brockett & Hiemstra 1991 for a discussion of these studies). However, research regarding this concept in relation to students with disabilities is limited, despite recognition that other educational concepts may vary for this population.

Research has shown that adult learners expect to be active in their own learning (Bloomer & Morgan 1993); and through opportunities to be self-directed or to develop metacognitive skills in a classroom setting, teachers can assist students to pace themselves further along the self-directedness continuum (Millar & Saddington 1993). Students need to be motivated, persistent, responsible, have a preference for independent study, and have an ability to cope in different learning situations if their 'personality' is to be congruent with a self-directed teaching strategy (Murray-Harvey 1993). They need to become increasingly independent in identifying their own motives for learning and their strategy options (Biggs & Moore 1993; Clayton-Jones et al. 1992). They need to be able, or be encouraged, to choose strategies, reflect on the appropriateness of the strategy chosen, choose again if necessary, and review achievement of
their learning goal. However, some students must learn to be self-directed (Candy 1991; Higgs 1988) as those with little educational experience or those who are more reticent may initially have considerable difficulty although this is soon reduced or overcome (Hiemstra & Sisco 1990). So, once becoming self-directed, few choose to revert to the previously experienced ‘pedagogical’ learning model (Billington 1990), although they may still display dependent characteristics in a new learning situation (Candy 1991; Herbeson 1991). The necessity for increasing self-directedness in learning is well documented. While it is recognised that ‘learning how to learn—which is perforce a self-directed or learner managed process—is not just a basic human competence but is the basic human competence’ (Bawden 1993, p.28), it is questioned if learning-to-learn features are present or are promoted in current VET programs (NBEET 1996a,b).

Students with disabilities

The literature strongly identifies that students with disabilities may have difficulties additional to those experienced by learners without disabilities; however, there is a paucity of research relating to adult students with disabilities undertaking vocational education and training. Students with disabilities can have a sense of educational disadvantage which needs to be overcome through learning empowerment and increased self-esteem (Preece 1995), with the need for a positive self-perception being identified by at least one student with disability as author (see Ireland 1993). It is acknowledged that any student can arrive in a course of study with negative pre-conceived ideas about learning, or an under-developed self-directedness due to previous educational experiences (Cross 1981 cited in Brockett & Hiemstra 1991); but this may be more so for students with disabilities (Ashman & Elkins 1990; Borkowski et al. 1989; Preece 1995). Additionally, some adult students—and again more frequently students with certain disabilities—experience difficulties with material in text format (Jacobowitz 1990), an approach heavily relied on in flexible, self-paced programs. Students with disabilities may, because of those disabilities, have deficiencies in linguistic skills which are necessary as a foundation for the further development of metacognitive skills.
(Whitman 1990). They may also have physical, sensory or processing implications of their disability which make the acquisition of metacognitive skills more difficult (Conway & Ashman 1989) and therefore intervention may be required. Some disadvantaged students require an especially supportive learning environment (NBEET 1996a,b); but at the same time, intervention or support should not induce learned helplessness (Preece 1995). One of the few studies of people with disabilities in education from the consumers’ perspective shows that the younger a person acquired a disability, the lower the level of academic achievement in adulthood, particularly for women; and there is also a clear discrepancy between the amount of participation in higher education people with disability wished and what they actually achieved (Preece 1995). Opportunities to complete training programs, not just participate in them, are required for students with disabilities (Benn 1995) and existing resources which allow support for this outcome should not be reduced (Anderson 1996).

**Responses of the focus group**

The focus group clarified the issues as raised in the prior-distributed review of the literature, then discussed these issues relative to their own experiences as teacher or student.

**Students with disabilities as lifelong learners**

It was agreed by the focus group that students with disabilities generally do not have a perception of themselves as 'lifelong learners'. However, what was of greater concern was the agreement that many students with disabilities do not perceive themselves as 'learners'. The 'lifelong' doesn't even come into it: they don't see themselves as being successful learners.

Further discussion revealed the breadth of different experiences of students with disabilities as learners. The opinions of practitioners varied according to (a) the type of disability of the students they had
worked with and (b) the level of the course undertaken by the students they supported. Statements such as ‘it does move on for some, but not for all’ were supported by the student representative.

The focus group felt that maturity, age and experience, particularly vocationally, allow people to understand the need to be lifelong learners. From the vocational perspective, apprenticeships, diplomas, etc. are now the start of a career, not an end within themselves. However, as is reflected in the literature, people with disabilities have less chance than the general population to experience employment and advancement, reducing their opportunities to develop the need for lifelong learning, thus influencing their perception in this regard; although this did not alleviate educational providers from aiming for this outcome: ‘... you’ve got to look at lifelong learning for everybody along the continuum’ and ‘... and for the people who will work, and for the people who won’t ever work—the learning is still there’.

While the role of disability support staff is to make the bridges within their respective institutions, assertiveness was identified as the extra step that students with disabilities have to take beyond that of other, non-disabled students:

... assertive to the point of being precocious. If you’ve got kids that you identify as being disadvantaged in learning or not fitting the system even ... they need to develop the tenacity to stand up for themselves. It’s the kids who haven’t got that and haven’t got the organisational skills who’ll fail.

Practitioner concern is how to now change those students’ attitudes to consider themselves as lifelong learners, in view of the negative experiences many have had to this point. No answers were forthcoming, only the acknowledgement that this does not happen automatically. The fear was expressed that students with disabilities will again have fewer opportunities to experience lifelong learning because support programs for individuals will not be funded.
Students with disabilities as self-directed learners

The question of the self-directedness of students with disabilities raised a variety of responses from VET practitioners, ranging from students' reactions of confusion, to motivation, to determination. As with lifelong learning, it was again felt that students' self-directedness could vary according to the nature of their disability, when it was acquired, their previous educational experience, and the level of the course they were studying. From practitioner experience, there was general agreement that the self-directedness of students with disabilities was connected to their age, although this was more loosely linked by them than the results of studies reported in the literature review. From their experiences with students with disabilities, practitioners agreed with findings of research identified in the literature review that the implications of certain disabilities may have the potential to limit the self-directedness development of some students. This has obvious ramifications for the students and their teachers in any VET program.

During the course of discussion, the question of self-direction in learning was turned around to 'What level are we teaching to, not what level are they at? ... What are our expectations as the teacher ... do they match?'

The need for a match between the student's current level of self-direction in the learning environment, and the opportunities or requirement to be self-directed, was seen as the crux of the matter of self-directedness of students with disabilities in VET programs. If a student is highly self-directed, then the learning situation has to allow him/her to learn that way; if less self-directed, the teacher needs to provide opportunities for the student to start at that point, and then progressively increase his/her experiences of being more self-directed. To achieve this match, it is necessary for both the student and the teacher to have an understanding of the individual's training needs:

It is not even what we [teachers] presume, it is what we are doing. How are we assessing the barriers and what sort of educational support are we putting in place? How individually are we tailoring that package?
It is the degree of match that is the real determinant of success or failure. A mismatch either way produces failure.

The VET practitioners were concerned about what was happening in practice from a number of perspectives:

It is whether either is being assessed, let alone the match between the two!

In reality, if a student we are talking about ... walks into a classroom, the teacher says “This is my group, and this is how I’m going to handle it”. They’re not differentiated.

If we don’t have the infrastructure to do it differently, then it remains purely rhetoric.

The issue was raised of a large degree of responsibility for learning remaining with the teacher:

It’s an issue of managing the diversity within what we do ... I haven’t worked out who’s perfect yet or what ‘normal’ is ... so there’s always going to be differences within the people that we are catering to.

VET practitioners are concerned that there is no mechanism for knowing how self-directed students are. There is also a concern that some practitioners do not realise that self-directedness, either as a personality dimension of the learner or as a learning process, may be an issue particularly in the way the delivery of VET is changing. The implications of assumptions of responsibility for learning, particularly in open learning situations, are cause for concern in practice. The rhetoric of recognition of self-directedness of learners was questioned: in practice are we only assuming that VET learners are and want to be self-directed?
Attrition of students with disabilities in VET

While the level of self-directedness of students with disabilities as discussed above remains an issue, it was also considered that organisational factors as well as the learning environment itself contribute to the problems some student with disabilities have in VET 'but it's certainly going to affect the drop out, or the length of time it takes to get through the course, all those sorts of things'. While practitioners consider they see differences in and between their adult VET client groups, they feel that further research is needed to provide a clearer picture of the situation.

The focus group discussed their understanding of the level of attrition in distance education VET courses (of approximately 70%) and saw this as an issue requiring investigation when considering the way VET programs are offered in flexible delivery. They raised concerns about the assumptions of self-directedness in some programs, and projected these implications onto self-paced, text-based programs delivered on-campus and in particular in 'open learning' situations. The issues in the literature of students with disabilities who have text-related problems compounded concern. None of the practitioners was able to give statistics on the attrition of students with disabilities in their organisations, but it was generally considered that this would be higher than their institution's mean for the general student population. The determination was admired of those students with disabilities who have to overcome the types of factors which interfere with metacognitive capability, and this discussion led in the direction of reducing attrition rates for students with disabilities. They reiterated the concept of learning autonomy as developmental, as expressed by one practitioner's description:

... for me as a flexible delivery person, and what I found was that they needed a huge amount of support to get started. But once they got into it, once they knew the notes were working and they could see 'yes, I can do it on my own', they fly.
Training in metacognitive skills specifically was identified as required in practice:

So for those students ... the real thing that should happen ... is actually train them in some sense with those skills before you even start.

So what we're talking about is 'pre-voc' for the 'pre-voc'.

Existing VET provision of metacognitive training

The focus group confirmed the metacognitive skills of planning, deciding, monitoring, evaluating and terminating as identified in the literature as being required for various flexible delivery modes. They considered that provision of opportunities to increase the metacognitive skills of students with disabilities in existing VET provision is currently available mainly at an individual teacher level. The focus group perceived that the higher the level of study, the greater the assumption that the students will take certain levels of responsibility for their learning; and from that, the less the tendency may be for a teacher to be providing opportunities to teach students to increase their self-directedness and metacognitive abilities. However, contrary to much in the literature, there were examples of students being able to respond to the expectations of certain situations:

... for students with a disability, because there have been so many barriers for a lot of people in the past, there's a certain expectation that there will be barriers, and because of that they've had to develop strategies around it.

And there were also examples including students without disabilities who were unprepared for changes in learning situations, and for the failure which ensued.

It's a self-esteem thing as well, and somehow in this training we have to pick this up with the students.
It's a shame that the perception is this fail/pass type stuff, instead of different/different.

The focus group felt that there is a need to teach students to analyse their failures and their successes as part of the development of metacognitive skills, for students to realise 'I didn't fail—the strategy I chose this time failed and I can change the strategy'.

It is with experience and maturity that students will be able to analyse and appropriately duplicate successes from their formal educational situation. To achieve this, teachers need to understand the different types of support that students may require and the various ways in which students can learn the same task.

In considering existing VET provision, the focus group immediately identified that teacher training had to be a major issue. It was recognised that much of what is in the current literature review is not new, in that it was being discussed when some members of the group were doing their teacher training or post-graduate studies.

This stuff was in the forefront at that stage and my understanding was it was heading straight into teacher training.

There was nothing in here that was absolutely new. Where does it keep slipping away to?

It was felt that, for existing VET teachers, their own learning experiences would have an impact on their teaching. If their own opportunities to experience metacognitive learning and to develop those skills for themselves were limited, then they would tend to replicate similar reduced opportunities for their learners. The recognition that VET teachers trained in perhaps the last decade should have had some exposure to the concepts of metacognition and self-direction in learning, led to the feeling that this should be an issue only with those VET teachers trained in earlier decades. This was considered true also of teachers trained for primary and secondary schooling; so that in the very near future at the latest, VET providers should be seeing new VET students who have already had some development of their metacognitive skills. In the worst scenario, students and teachers with
little or no exposure to these concepts should be an interim issue only. But in the meantime it was feared that this is not the case:

We should be taking them from here to here; we shouldn’t have to be coming back to here

We shouldn’t have to be putting in the chocks along the way

and the fear should be voiced:

We have the responsibility to say that we are getting problems through to us which need not . . .

The focus group felt that as well as the students, there is a whole population of ‘teachers’ who have been overlooked, that is, trainers who are accredited but who have had very little formal training for teaching:

. . . and when you flag this with people who aren’t even formally trained as teachers, you know they started off as tradespeople.

There’s a change process needed; and there’s a huge resistance to change.

These trainers may have missed out in their own experiences of exposure to metacognitive training; and because of that experience of lack of emphasis on those skills, they will not be considering them with their own students. In fact, issues of quality were raised regarding small private organisations and also on-the-job training programs.

What do you get: 20 years of learning experience behind yourself in primary school, secondary school and your own trade; versus three days of saying ‘now don’t do what you’ve had as 20 years experience, do now what I am telling you’. Is it likely to be happening out there; and is there any mechanism . . . for checking if metalearning is happening—so what chances are there in the private sector?
Improvements needed in VET

The focus group recognised that changes required within existing VET provision to cater for students with special needs, have advantages for all students; however, they may sometimes also involve costs:

*One of the really positive things about the education institutions being confronted with the need to deal with people with disabilities is the fact that it does confront those fairly, um, antiquated teaching methods because, you know, you can’t just stand up and lecture because it doesn’t work very well for students and suddenly you are confronted with someone who says we need to do it differently. So people have to go back to the drawing board.*

*But where they change it for students with disabilities, they probably pick up another ten per cent who learn it better anyway.*

*Yeah, if they were doing all right, they were getting their C’s, but now by learning it a different way they are getting A’s and B’s—and that’s better for the smart country.*

*And that costs. That actually needs other funding.*

The development of metacognitive skills for any student in VET currently appears to be ad hoc, at best, depending on the individual teacher. There is a need for VET teachers to understand the specific support requirements of the students with disabilities within their own classes. Also, there is a need for students to be able to access specific support in learning to learn. However, it was felt that in many instances this can be achieved without additional resources, for example in learning skills units or adult study centres. Staff in these units need to understand and apply the issues raised in the literature which show that metacognitive skills can be addressed in the context of what the student is currently learning, but with a view to being able to transfer those skills to other learning situations. This is essential for lifelong learning and the development of self-directedness in students with disabilities. While such learning support units are available in large educational institutions, there is concern that students with disabilities in smaller,
often private, training provision will not have an opportunity to be adequately supported according to their learning needs.

There is insufficient recorded experience in the area of students with disabilities in VET to be sure how best to support the variety of needs which became apparent during this focus group. However, the focus group strongly stated the need for different approaches in preparing and supporting students with different disabilities. The literature identified that some students with disabilities are likely to start at a lower level of self-directedness than their peers, to have more difficulties in progressing along the continuum of self-direction, and that the system may, in fact, actually encourage them to become less self-directed. The practitioners cited similar experiences:

These students are going to have had more background educational experiences that will have reduced their opportunity to've even gotten to the starting gate than other students have gotten to.

Funding issues were seen as having an inappropriate and disproportionate influence on training issues at times, such as a proposal for one-year funding to implement educational provision for disadvantaged learners undertaking a four-year apprenticeship. Such encroachments on educational provision raise questions of outcomes possible, and of quality provision:

... and then we've got to look at quality of delivery, of the service, and we've got to look at sustainability because, you know, we've got a lot of people dependent upon this system.

VET practitioners feel they do not always have the means to do what is required in the current educational trends. The barriers identified by the focus group are the policy development, professional development and infrastructure issues involved:

There are funding implications—that we don't always have the infrastructure to do it as well as we would like to do it ... you can't just talk about outcomes and money, we have to talk about overall quality and sustainability.
The focus group identified the need to look at all contributing factors in the current debate, as summed up by the following comment:

... we can have a 'Rolls Royce' education department, we can have a state-of-the-art VET sector, and we have a dead end if we don't do it [look at the big picture] ... I'm sick of people saying "You work in VET"—I don't! I work with kids who want to work and I work with kids who need to learn; and we've got to start looking from when they very first start learning and we have to address that all the way through the whole system ... where they're going, and at small business ... and if you don't look at all of that then you are wasting your time.

VET educators as learners

While those participating in the focus group felt that they had chosen to be involved because of their commitment to lifelong, self-directed learning, they felt that this was not yet the norm for VET educators.

It's almost a rhetorical question. The people who succeed as teachers are not so much those who are self-directed learners as the ones who can jump through the appropriate hoops.

It was necessary for the educational providers and institutions to not only talk about lifelong and self-directed learning for their students—and make those opportunities occur in a meaningful way—but that the same needed to be available for the educators themselves. Until the vast majority of VET educators recognised and verbalised their own need to be lifelong learners, professionally and personally, then there was little chance of changing teaching practice to influence these attitudes in any students.

Summary

The main themes arising across all the issues raised in the focus group discussions were:
All students in VET need support in learning to learn, not just students with disabilities.

The introduction of metacognitive skills should be only an interim issue in the VET sector, until schools put into practice what is being put forward in theory; then VET’s role will continue as further developing those skills and self-direction in learning.

The match is critical between the student’s applied level of self-directedness in learning in the current situation, and the level of self-direction opportunities built in to the current learning situation by the teacher or curriculum.

The implications of different disabilities may necessitate different interventional strategies to develop and increase learning-to-learn skills, but much could be implemented within current provision if it was more appropriate.

Resources need to be committed to allow for specific metacognitive interventions for students with disabilities where needed in all facets of VET provision.

Teachers in all facets of VET need opportunities to understand and develop their own levels of self-directedness in learning and metacognitive skills.

Discussion

Vocational education and training providers support the learner-centred, empowerment approach to learning identified in the literature as a current trend in this sector, and see the relationship of vocational training to the development of a lifelong learning perspective. However, they feel that there is a vast difference between the educational theory as represented in the literature review, government rhetoric, and what actually is happening or likely to happen in practice, particularly for students with disabilities. The current workplace changes have influenced approaches to learning and to educational delivery. Acceptance of a need for learning throughout one’s career (if not life) is apparent; as is the move to greater flexibility in the provision of
education and training. A presumed level of self-directedness is apparently being relied upon to allow the educational initiatives and flexibility in VET to be implemented, confirming questions being raised in the literature. However, the focus group identified the need for a benchmark of the self-directedness or level of metacognitive skills of both students with and without disabilities when they enter various types of VET programs which would give VET teachers information for considering their students, and would allow curriculum developers a baseline for the revision or preparation of VET curricula. If opportunities to introduce or develop metacognitive skills were included in all VET curricula for all students, then many students with disabilities may be able to be supported within standard course provision. Additionally, many students without disabilities would benefit from the opportunity of introduction to or development of their level of metacognitive skills. The provision of metacognitive training as part of all curricula would better allow for the overall aim in VET of catering for the individual needs of learners as raised in the literature.

People with disabilities are still 'on the agenda' with their participation and outcomes considered important. However, both the literature and the focus group suggest that the quality of their participation as it currently exists in VET will not allow outcomes to overcome their vocational disadvantage. Further research in this area is indicated. This might include investigation of the most appropriate types of interventional programs to introduce or further develop metacognitive skills for students with disabilities during their VET programs. While such training programs exist for school students, these need to be validated for adult VET students, or alternatives developed and trialled. As well, liaison between school education departments on a State or national level might be initiated to identify and overcome problems experienced by students with disabilities whose level of self-directedness and metacognitive skills are below those of students without disabilities when they enter studies in VET, and to reduce the impact of factors identified in the literature and by the focus group. Close liaison and clearer understanding by both school education and all facets of VET providers, of each sector’s role and the implications for each other, will improve provision for all students. Where students with disabilities move directly from school to a VET environment, existing liaison might be utilised to increase understanding of metacognitive
training issues. An obvious implication of these findings is that in all VET programs sufficient financial resources should be available to implement special, individual metacognitive training programs where necessary for students with disabilities. While changes to existing VET provision to include metacognitive training would allow for the individual needs of some students with disabilities, opportunities should also be available for additional support outside the classroom, where this is necessary. Funding for this intervention needs to be available to all facets of VET provision, as students with disabilities may undertake training with any VET provider.

Metacognitive skills may be considered as the 'tools' required for the 'job' of self-directed learning. While both self-directedness and metacognition have been investigated to some extent in school and university students, there is a need for further research in adult vocational education and training, and particularly as it applies to students with disabilities. However, there appears to be some degree of assumption that both self-direction and metacognitive skills are already existing characteristics of adult VET learners, or that these outcomes will happen as part of existing VET provision. While this may appear to be plausible, based alone on the maturity aspect of adult learners, the accuracy—and more importantly the level—of these assumptions needs to be researched. For students with disabilities, there are concerns that some of the research that has been done in the broader education field may not be applicable to this population because of various personal and education background factors of that particular population. Specific research about metacognition and students with disabilities in VET would be able to inform decision-making in this area. While current theory and practice of adult education both emphasise learners and their responsibility for their own learning, this should not be taken as an opportunity to reduce support for students with special needs.

Both the focus group and the literature identify that, for teachers, the predominant issue in the VET learning situation is the match between the learner's applied level of self-directedness and the opportunity to develop metacognitive skills and abilities from that starting point. The overriding concern for VET identified by this study, though, is that VET practitioners should see their role as further developing metacognitive abilities in students with disabilities, but they are faced with having to
introduce this aspect of learning to many. This is difficult because (a) often, in many existing course curricula, neither introduction nor development of metacognitive skills is catered for and (b) there are limited resources, both financial and expertise, for special interventions outside the mainstream program. The literature supports these types of comments for school situations, but there is insufficient research on students with disabilities in VET to aid decision-making about how this dilemma should be addressed.

This study identifies the need for policy to be developed across all dimensions of the VET sector to ensure that students with disabilities have opportunities to develop their metacognitive skills within their mainstream courses; have sufficient resources available to cover special intervention if this is necessary; and have appropriately experienced teachers to guide them in this development. Strategies should be implemented to ensure that teachers involved in all facets of VET have the pre-requisite experience and training in metacognitive skills, as well as ongoing opportunities to further develop these abilities, so that they are better able to train all their students including any who may have a disability. With these increased experiences and opportunities of metacognitive approaches, teachers and trainers in all facets of VET might be able to more easily integrate these into VET programs for all students including those with disabilities.

Conclusion

Despite the interest of this study being students with disabilities, the issue of learning to learn—at the moment—is considered to involve a broader population than this group. The question remaining is: do teachers and students recognise the implications of the current directions in VET? All VET trainers need to understand the educational theories behind the current trends, as well as having ongoing opportunities for their own metacognitive learning. For all students, the acquisition of metacognitive skills was clearly identified as necessary for maximum potential performance in VET. There appears to be an assumption that VET students either are already self-directed in their learning when they commence VET training or will gain skills in self-
direction as an automatic outcome of the VET training. Of concern is the fact that little is happening in practice for any students in their further development of the metacognitive skills required for the increased learner control and management required in VET settings. Students with disabilities will be disadvantaged because this area is not adequately addressed for students without disabilities. Those whose disability has meant a deficit in development towards the level of metacognitive ability required for entry into VET courses will be further disadvantaged by the lack of opportunity to establish these necessary skills as part of a VET mainstream or special program.

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