

Crazy paving or stepping stones?

Learning pathways within and between vocational
education and training and higher education

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Publisher's note

Additional information relating to this research is available in *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education—Support document*. It can be accessed from NCVER's website <<http://www.ncver.edu.au/publications/1722.html>>.

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Foreword

This project was funded as part of the national program of vocational education and training (VET) research managed by the National Centre for Vocational Education Research (NCVER) and funded by the Department of Education, Science and Training on behalf of the Australian Government and state and territory governments.

One of the significant issues in vocational education and training is student pathways and how students use them to achieve their personal goals. These ‘pathways’ can be within or across sectors, as well as into and out of paid work. This study focuses on the pathways—to and fro—between VET and higher education. The magnitude of these pathways can be contested ground. However, this study is predominantly qualitative and builds on an earlier study by the same authors and published in 2005: *Student traffic: Two-way movement between vocational education and training and higher education*. This project draws on the experiences of 49 South Australian students who had experienced learning in both the VET and higher education sectors and who were part of that earlier study.

The study found that patterns of movements are quite complex, within and across different fields of study. This suggested the title of the report, for what was found were not linear and seamless pathways, but rather ‘stepping stones, zig zags or lurches’—crazy paving or stepping stones. These were overlaid with a range of barriers along the learning journey, including finance, juggling work, other commitments, transportation and institutional location, as well as a range of other personal and provider issues. The report reveals the richness and complexity of ways individual learners use and exploit available options. As such, the report is not only of interest to those in policy, but also to staff involved in teaching and counselling students in both the higher education and VET sectors.

Finally, we are pleased to note that a presentation by Roger Harris based on this and the earlier project was awarded ‘Paper of the Year’ at the 2006 Australian Vocational Education and Training Research Association (AVETRA) conference in Wollongong.

Tom Karmel

Managing Director, NCVER

Readers interested in student pathways are referred to other projects in this area.

- ✧ R Harris, R Sumner & L Rainey, 2005, *Student traffic: Two-way movement between vocational education and training and higher education*, Adelaide, NCVER.
- ✧ L Rainey, M Simons, V Pudney & E Hughes, forthcoming, *An evaluation of career development services for young people*, Adelaide, NCVER.

To find other material of interest, search VOCED (the UNESCO/NCVER international database <<http://www.voced.edu.au>>) using the following keywords: educational mobility; student mobility; vocational guidance.

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Key messages

This study examines patterns of pathways within and between vocational education and training (VET) and higher education. It compares the notion of straightforward pathways with what actually happens. The main data come from in-depth interviews with 49 South Australian students who had experienced both sectors. Categories of student movement are suggested.

- ✧ The policy statements of relevant legislative bodies have aimed over time to provide broader, multiple and seamless pathways for young people.
- ✧ Students who move within and between VET and higher education are generally not aware that career services are available, they do not use them, and they do not think they need them. These learners may be considered those who could most benefit from such services. From a system perspective this raises issues of inefficiency.
- ✧ While policy emphasises ‘seamless pathways’, the learners in this study do not generally perceive their educational journeys as pathways, but rather as stepping stones, zigzags and lurches. Nor are the moves seen to be seamless; barriers are involved. Barriers include: finance; transport; location of institution; juggling work, family and study; inflexible class schedules; inadequate or inaccurate information, such as credit transfer or course outcomes; and personal issues, such as lack of confidence or finding academic work difficult.
- ✧ Nevertheless, these learners see great value in everything they’ve done and are positive about their multiple learning moves. Their educational journeys demonstrate that student movement within and between sectors is certainly possible and should continue to be facilitated in policies and program initiatives.

Executive summary

Over the past decade, promotion of educational pathways and seamless learning by governments and institutions may be perceived as both positive and problematic. ‘Seamless’ transition can provide considerable choice for young people and yet, at the same time, can readily lead to uncertainty and indecision. A number of studies have drawn attention to the phenomenon of indirect transfer, where movement of tertiary students is not linear, but instead involves several moves within and between institutions and sectors.

American studies refer to the ‘swirling’ of tertiary students and to ‘the community college shuffle’. In Australia, there has been a suggestion that this kind of movement is also occurring, although its extent remains unknown. The only indication comes from an earlier study by the present authors of all commencing students in South Australian tertiary institutions. This study investigated the issue of intersectoral and intrasectoral movement and found that it was significant and growing within the tertiary sector.

The current study is a qualitative exploration of the personal histories of 49 of these students. It set out to examine the nature of these pathways and whether they display any patterns that might help us to understand the experiences of moving within and between various pathways.

The findings help to sharpen understanding of learning pathways and movements, and may assist policy-makers and institutional planners to establish robust relationships between the sectors and to implement policies and services to help learners navigate through education systems.

The study focuses on those policies and initiatives implemented in recent years designed to facilitate clear and easy pathways between vocational education and training (VET) and higher education. It also addresses barriers preventing learners from accessing these pathways and how learners perceive and make use of these pathways.

The study used three research methods. First, a literature review was undertaken to identify policies on pathways and career services and initiatives for facilitating pathways. Second, analyses were undertaken of sets of data obtained from current databases held by the National Centre for Vocational Education Research (NCVER) and the Department of Education, Science and Training. The data related to students who had experienced learning in both the VET and higher education sectors. The prime, and third method involved in-depth interviews with 49 students in South Australia who had experienced learning in both sectors.

Key findings

Policies on pathways and career services

Over recent years there have been common themes in the policy documents of the major legislative bodies concerned with young people’s transitions from school to further education and work. These have stressed the need for seamless movement between school, VET and higher education, and for a wider range of pathways. The requirement for career services to support young people in their choices has also been a common and agreed theme. However, progress in

improving pathways for young people has not been accompanied by corresponding progress in the provision of career support to facilitate these pathways.

Selected initiatives facilitating learning pathways

A range of initiatives has been undertaken to enable learning pathways within and between the education sectors. These have included arrangements for articulation, credit transfer and recognition of prior learning; the appointment of specialist staff, such as skills advisors and pathways officers; and the provision of enabling or bridging courses for those lacking knowledge and skills for a course. Inter-institutional collaborative arrangements, such as joint courses, learning opportunities on shared campuses or in dual-sector institutions, have also been established. School-based initiatives such as developing vocational streams have been implemented widely. While there have been difficulties associated with a number of efforts to enhance pathways, there has been solid progress and many notable successes over recent years.

Learning moves

The total number of moves undertaken by the 49 participants was 165—with 80 into higher education and 85 into VET. The first transition was from school and, since participants had a history of study in both tertiary sectors, all participants had a minimum of two moves. The number of moves per respondent ranged from two to seven. Three-quarters of the students made three or more moves. Given that 49 of these moves were from school, the remaining 116 were moves between and within the two tertiary sectors: 64 intersectoral moves and 52 intrasectoral moves.

Field of education

Approximately 40% of all sectoral moves were to the same field of education. For those who made only one intersectoral move, most were into a different field of education. When moving between sectors, students were more likely to enter a different field of education than to stay in the same field, although this tendency was more marked in those moving from higher education to VET. There was very little movement from higher education into the same field of education in VET. On the other hand, the intrasectoral moves indicate that there is more movement within VET, both for the same and for different fields of education, than there is within the higher education sector.

Employment while studying

Nearly 70% of students in both sectors worked while studying. The picture overall is of a very hard-working group of students who demonstrate considerable flexibility in both their work and study patterns. Apart from higher education students having a higher incidence of largely only one, part-time job and VET students having more full-time and multiple jobs, the patterns do not differ significantly.

Use of career services when moving within and between sectors

There was generally a lack of awareness of career services. Usually only assistance which was readily available and accessible was sought. Information sources (particularly websites) were the most commonly used resource, but these were generally not fully utilised, and only information relevant to the next move was normally accessed. Choice was mainly driven by student interest in a particular field, which was often the 'glue' that held the pathways together.

Making the moves

Reasons for making moves were frequently straightforward and were often made for vocational reasons, although in some cases they were the result of a student's interest in a particular area.

Additional influences included being required to make the study move by an employer, location and reputation of the institution, course reputation, institutional flexibility, encouragement from family or friends, advice from counsellors, or affordability of the course. Barriers were often encountered and included: finance issues, such as having to work to afford to study; transport; location of institution; issues associated with juggling work, family and study; inflexible class schedules; inadequate or inaccurate information, for example, on credit transfer or course outcomes; and personal issues, for example, a lack of confidence or finding the academic work difficult.

Generally, participants reported that their expectations had been met by the moves.

Learning pathways

The term, 'learning pathway', was interpreted as a journey of learning, but in a variety of ways and it was rarely perceived as linear. The picture that was presented comprised fragmented or discontinuous stages and a series of personal choices—a journey where the individual had autonomy to twist and turn. In some instances, the notion of a learning pathway was recognised as implying a commitment to lifelong learning. Moreover, many did not feel that this term was the most apt description for their own learning history. Instead, they used such terms as 'stepping stones', 'zigzags' and 'crooked paths'. Reasons for this irregularity of path included lack of guidance, lack of fit between courses attempted, inexperience and lack of course prerequisites.

While not necessarily seamless, the available sectoral moves and pathways appear to be both functional and effective and are used by young people. The process may be enhanced by targeted, accessible and accurate information and by provision of career advice. Notwithstanding systemic factors, the character and make-up largely dictates whether these opportunities are taken up.

This study has revealed a diversity of pathways which are neither linear nor traditional. Analysis of these pathways indicates some common patterns of sectoral movement, although further work is required to develop the categorisation suggested below so that it becomes part of a lifelong learning framework.

- ✧ *Interest chasers*: when describing this pattern of movement, the terms used might be 'multi-directional', 'searching', or 'yo-yo'—bouncing between different fields of interest.
- ✧ *Career developers*: some participants showed consistent interest, even though they may have made several sectoral moves. Sometimes this looked like a domino pattern, where an element of one learning experience led to a sectoral move to further develop this as a career. This pattern was more linear, being less of a 'jump' than a 'flow' into another course of study.
- ✧ *Career mergers*: having explored interests in other areas, some participants then drew different experiences together to move into a more focused course of study. This was different from the 'career developer' pattern, in that it was usually non-linear.
- ✧ *Forced learners*: sometimes participants undertook what appeared to be a completely different course of study for professional development reasons. Sometimes this change was due to some practical factor, which obliged them to undertake a particular course, such as affordability, location or entry requirements. This might appear like a detour or side step.
- ✧ *Two-trackers*: some more experienced respondents attempted to develop an alternative career as insurance for a time when their current career was no longer possible. This pattern also occurred when students were trying to improve their chances of earning an income while studying.

Limitations

In interpreting the findings, it needs to be acknowledged that there are limitations in the use of national data, because individual movements cannot be tracked. Care also needs to be taken in generalising from the types of student movement, as the sample interviewed was relatively small, and from only one state.

Introduction

Background

This project explores the notion of pathways. Frequent statements around the theme of ‘the transition from school to work is not necessarily direct’ raise very interesting assumptions and issues about post-school learning options (the ‘what’), available information sources (the ‘how’), and the experiences of and motivations for moving within and between tertiary education sectors (the ‘why’).

Over the past decade the official promotion by governments and institutions of pathways and seamlessness may be perceived as both positive and problematic. On the one hand, such seamlessness can provide considerable choice for young people as they grapple with the twin challenges of learning opportunities and finding work. On the other, it can readily lead to a climate of uncertainty and indecision, where young people struggle to make meaning of the seemingly endless array of possibilities before them, wrestle with decisions about the most appropriate ways ahead for them, and discover at some later time that less-than-optimal selections can be both financially draining and time-inefficient. Policy that promotes unlimited choice has tremendous potential to be worthy, yet necessarily makes assumptions about: individuals having the necessary ‘wherewithal’ to benefit from a range of alternatives; the sufficiency of career services and arrangements; and the usefulness and timeliness of various career information sources. Moreover, the positing of full-time work as the desirable goal can also be very elusive for some, particularly given the level of their personal skills and abilities, and the nature of the modern-day labour market with its—to name just a few characteristics—emphasis on knowledge workers, increasing casualisation and part-time working opportunities, and trend towards portfolio work, where an individual’s working week involves employment in more than one position.

Recent research has highlighted the flow of students between educational sectors (for example, Harris, Sumner & Rainey 2005; Albrecht 2004; Department of Education, Science and Training 2002; Pitt 2001; Golding 1999a; Werner 1998). While one-way models of student movement, leading to university, abound in the literature, Golding and Vallence (2000, pp.1–2) have claimed that ‘[they] are simplistic, illusory and inaccurate’. Yet, as Teese and Watson (2001) state, ‘relatively little is known about the educational and employment pathways of students moving between the sectors’ (p.7), despite the importance for policy-makers and institutional administrators of such data in order to understand changes in the demand for education and training and how best to meet student needs. Their report illustrates, however, the difficulties in mapping such movement only from existing data collections and paints the ‘urgent need to improve the usefulness of existing data collections for policy analysis and planning’ (Teese & Watson 2001, p.13). Moodie (2003, p.7) also draws attention to data on rates of transfer, in his case from vocational education and training (VET) to higher education, being ‘problematic and to some extent controversial’. There are indeed data quality issues which arise at times (Teese & Polesel 1999; Pitt 2001; Ramsay et al. 1997) and, as concluded by Karmel and Nguyen (2003), the ‘statistical collections for both sectors are not comprehensive’ (p.2).

Apart from the issue of data quality, a number of studies have drawn attention to the phenomenon of indirect transfer, where movement of tertiary students is not in a straight line but instead involves several moves within and between institutions and sectors. For example, Moodie highlights several institutional studies, drawing attention to this type of movement in the United States, including that by de los Santos and Wright which refers to the concept of 'swirling' and that by Maxwell and colleagues which refers to 'the community college shuffle' (both cited by Moodie 2004, pp.42–3). A paper by Karmel and Nguyen (2003) suggested that these kinds of movements are also occurring in Australia.

A preliminary study (Harris, Sumner & Rainey 2005) to this present one continued the exploration of the nature of two-way student traffic between VET and higher education in Australia. It indeed found a high level of both intra- and intersectoral movement and illuminated the complexity inherent to the phenomenon of student 'pathways'. The question remains: why is this so—particularly the growth in so-called 'reverse articulation'? (Haas 1999, p.10). And if the pathways, post-school to work, are not necessarily direct, what do they look like, how does each individual make meaning of their trajectories (pathways) in their 'subjective career' beginnings (Walton & Mallon 2004), and can any patterns be perceived that might help us to understand more fully the experiences in, reasons for and consequences of moving within and between these various pathways?

This present study, therefore, sought to extend this cross-sectoral work specifically in three integrally related ways, all focused on the key notion of 'learning pathways'.

- ✧ In order to paint the context of learning pathways, it analysed *policy initiatives* that have been implemented in recent years to broaden choices for young people and facilitate clear and easy pathways.
- ✧ In order to illuminate further the context for such initiatives, it developed *profiles of learners* through a quantitative analysis of extant data in sector-based collections.
- ✧ In order to ground these initiatives and general statistics in 'lived experience', it examined the more qualitative issues of the *experiences* in, reasons for and consequences of moving within and between various pathways, through primary research on a sample of learners with both VET and higher education experience, and who are therefore in a uniquely informed position to reflect and comment on their pathways.

The findings we believe help to sharpen understanding of learning pathways and transitions in student movement. We also believe the findings from this study and a concurrent study evaluating career development services (Rainey et al. in press) will assist policy-makers and institutional planners with insights into how best to position VET in relationship to other sectors and also facilitate the implementation of policies and services to help learners to navigate through education and training systems more effectively.

Research questions

The following are the research questions underpinning the study.

- ✧ What initiatives have been implemented in recent years to facilitate clear and easy pathways between VET and higher education? How effective have they been seen to be?
- ✧ What are the profiles over time for each state/territory and for Australia of learners who have moved between VET and higher education?
- ✧ Are there barriers that hinder or prevent learners from accessing these pathways?
- ✧ To what extent do young people use VET as basis for further study, and how effective is VET as a bridge to further education and/or work?
- ✧ How do learners perceive and make use of these pathways between VET and higher education?

The research process

This study employed a mixed-methods approach to addressing these research questions. It used three research methods: content analysis of relevant documents, analyses of extant databases, and interviews with students who had experienced both VET and higher education.

A content analysis of relevant documents was undertaken on a broad range of literature relating to policies on pathways and career services, and initiatives for facilitating pathways. The aim was to generate one comprehensive review that would serve as the background for two concurrent projects that were being undertaken by the authors: this project and 'Choosing VET: an evaluation of career development services'. The review is available as a support document (appendix A) on the web for both projects, and the two studies have drawn upon it for their respective reports.

Analyses were undertaken of particular sets of data from extant databases held by the National Centre for Vocational Education Research (NCVER) and the Department of Education, Science and Training. National and state/territory data were extracted from NCVER on VET students with higher education achievement who had moved to the VET sector over the previous eight years (1996–2003), and the from Department of Education, Science and Training on undergraduate students in the higher education sector with VET experience over the previous eight years (1996–2003) and also the years, 1990 and 1993.

The third method involved interviews with students in South Australia who were willing to participate in the study and who had experienced both sectors. The interview schedule investigated the students' histories of learning transitions since leaving school, which career service(s) they had used, and their goals for each move (see appendix B). Limitations with this information were that it relied on the participants' memories, and actual dates were not required. Students often appeared to move between full- or part-time study at each institution or full- and part-time work with each employer. However, in some instances, multiple jobs were undertaken during attendance at a single institution.

The sample was drawn from those who returned questionnaires for the earlier *Student traffic* (Harris, Sumner & Rainey 2005) study and who were willing to be followed up. The participants in that study were 2003 commencers at all South Australian technical and further education (TAFE) institutes with prior higher education experience, and 2003 commencers at all three universities with prior VET experience. Given the difficulties in obtaining various permissions to access students in educational institutions and that this component of the study was qualitative, this was a purposive sample that would involve minimum cost and include subjects who had signalled a willingness to participate.

Those students who had supplied an email address were sent a short explanatory email asking them to respond with a telephone number if they wished to participate in an interview. Those who did not respond to the email, but who had also supplied a phone number in 2003, were also followed up by phone. Letters were sent to those who had supplied only a street address. A total of 49 interviews were completed.

At the time of interview, 38 of these participants were studying in the higher education sector and 11 in the technical and further education (TAFE) sector. There were 17 males and 32 females: in the higher education sample, 14 were male and 24 were female; in the TAFE sample, three were male and eight were female. Fifteen were under 25 years of age; 16 were between 25 and 29 years and 18 were between 30 and 34 years.

The interviews were transcribed and the text entered into NUD.ist software ready for analysis. Data were coded, analysed and interrogated for patterns, with interest centred on both typical and atypical cases.

Policy and initiatives

As the focus on young people's transitions within and between sectors has grown, there has been a range of policy development and implementation strategies. In this overview, the policy context of young people's transitions within and between education sectors, training and employment is sketched; this is followed by an examination of a selection of initiatives designed to create pathways for these young people. The detailed review of literature is included in appendix A.

Policy relating to pathways and career support

The term 'pathways' was first used widely with the publication in 1991 of the Finn Review and was a powerful organising concept behind much education and training reform during the 1990s (McKenzie 2000, p.4).

The response of the Australian National Training Authority (ANTA) to the Organisation for Economic Co-operation and Development's (OECD) 1998 interim report on transition from initial education described the progress which had been made in providing for seamless transitions for learners in the vocational education sector in Australia (McDonald et al. 2000). However, despite this progress in facilitating transition and enhancing pathways, many writers considered that there remained a gap between the intent articulated in policy and what was actually happening to young people (McKenzie 2001, p.vi; Golding 2001, p.17; Carter 2001, p.60; Sweet 2001, p.50).

In its national strategies, ANTA pursued the notion of expanded, seamless pathways, supported by appropriate advice and guidance. Its 1998 to 2003 national strategy, *A bridge to the future*, included five objectives on expanding pathways and options, seamless post-compulsory pathways and comprehensive career advice to enable clients to consider the full range of options (ANTA 1998). However, the 2004–2010 national strategy, *Shaping our future*, recognised that, although pathways between education and training sectors had improved, barriers still existed, particularly between VET and universities (ANTA 2003b, 2003f). Strategies included making learning pathways seamless through partnerships between VET and other education providers, as well as community organisations (p.17), and helping clients navigate and interact with VET through access to appropriate services (p.15).

Interest in facilitating VET pathways was articulated in a number of ANTA initiatives. A review of training packages commissioned by ANTA in 2003–04 (Schofield, McDonald & Leary 2004) found that, while training packages offered learners a range of pathways, there were issues around entry into and outcomes from these pathways. ANTA's 2004 and 2005 national priorities for VET expressed a commitment to improving pathways between VET and the school and higher education sectors (Anderson 2003; ANTA 2003a, 2003e, 2004c). The *Principles and guidelines for improving the outcomes from vocational education and training in schools 2005–2006* (ANTA 2004b) stated that funds would be provided to school authorities for VET in Schools programs that were consistent with certain principles, including pathways contributing to qualifications defined by the Australian Qualifications Framework, and articulation with further training, education and, where appropriate, employment (p.4).

In the 2004–10 national strategy, ANTA’s measure of success in regard to pathways was the proportion of students who improved their employment situation or continued to further study after completing VET. The report card was relatively favourable, with ANTA’s *Annual national report of the Australian vocational education and training system* for 2003 (ANTA 2004a) recording strong or improving progress in the number of VET graduates employed or in further study after completing their training (90%). This was an increase of 2.1% since 2002 in the number of people participating in publicly funded VET, with one-third of employed persons in Australia holding a VET qualification. However, recent analyses of the VET system have found that it fell short of serving the increasingly complex skill development needs of large enterprises (Allen Consulting Group 2004; Business Council of Australia 2004; Cornford 2004, p.87).

At the school level, there were also moves to promote pathways and to provide appropriate career services for young people. In 1999, the Ministerial Council on Education, Employment, Training and Youth Affairs provided a national framework for schooling, the *Adelaide declaration on national goals for schooling in the twenty-first century* (1999). Goals 1.5 and 3.6 aimed for students, when they leave school, having an understanding of the work environment and career options, and access to a high-quality education that provided clear and recognised pathways. In 2000, the report of the Ministerial Council on Education, Employment, Training and Youth Affairs Taskforce on VET in Schools, *New pathways for learning* (2000b), described the achievements of these national goals. The subsequent *New framework for vocational education in schools* (Ministerial Council on Education, Employment, Training and Youth Affairs 2000a) had eight features which provided a basis for developing an effective framework for transition, among which were ‘explicit and well-articulated education and training pathways’ and ‘career information and guidance and access to student services’ (p.17). Strategies for these related to recognition of VET courses for admission to university and raising awareness of post-school VET pathways and improving career education in schools (2000a, p.17). The Business Council of Australia reported on the transition features identified in the framework. These included strong progress in providing explicit and well-articulated pathways, but moderate progress in developing coherent policies. However, there was slow progress in providing career information and guidance and access to services (Allen Consulting Group 2003).

Young people who were disconnected from education or at risk of becoming disconnected continued to be a major concern. In 2001, a Ministerial Council on Education, Employment, Training and Youth Affairs subcommittee on young people’s transitions was charged with developing practical options for strengthening transition pathways, resulting in the ministerial declaration, *Stepping forward: Improving pathways for all young people* (Ministerial Council on Education, Employment, Training and Youth Affairs 2002). The associated ‘action plan’ presented five tables on the key areas for action, including education and training as the foundation leading to pathways for effective transition for all young people and access to career and transition support (Ministerial Council on Education, Employment, Training and Youth Affairs 2002).

While the Ministerial Council on Education, Employment, Training and Youth Affairs has responsibility for school education, the Commonwealth Government has responsibility for national leadership (Allen Consulting Group 2003, p.11). In its 2001 report, *Footprints to the future*, the Prime Minister’s Youth Pathways Action Plan Taskforce made a national commitment to supporting young people in achieving their goals. Twenty-four recommendations were underpinned by the principle that education and training are the foundations of effective transitions. The need for relevant career and transition support was also identified (Prime Minister’s Youth Pathways Action Plan Taskforce 2001).

Within its area of authority the Department of Education, Science and Training also undertook to facilitate pathways and support young people in their learning transitions with appropriate support. In relation to the tertiary sector, the Department of Education, Science and Training published *Varieties of learning*, a publication which explored the complex relationship between universities and VET institutions and suggested ways to facilitate pathways between the sectors (Department of Education, Science and Training 2002). The Department of Education, Science

and Training also commissioned an overview of local initiatives which assist young people, aged 15–24, in a range of transitions (Figgis et al. 2004). This report outlined a landscape of transitions, composed of locations where young people find support and the ways in which these locations can be linked to provide required support and advice. It also identified gaps, the most obvious being intervention for individuals aged 19–24 who may not know what they want to do and who do not qualify for existing welfare/employment services and who are not connected to a supportive institution.

Since the 2004 general election, ANTA has been abolished, with its functions subsumed within the VET division of the Department of Education, Science and Training. This move, together with a number of other reforms, is seen as stimulating the higher education market, which arguably will introduce a wider choice of pathways for young people. The government has also created the Australian Network of Industry Career Advisers to extend existing career advice and work experience arrangements and to support better transitions to education, training and work for young people (Victorian Employers' Chamber of Commerce and Industry 2005).

The House of Representatives inquiry into VET in Schools (House of Representatives Standing Committee on Education and Training 2004) outlined the progress made in developing vocational education as a pathway from school to work. The report found that processes such as dual recognition of general and VET qualifications in schools had greatly assisted students in making the transition to post-school options, and that problems in adapting to the transition to the university sector could be mediated by an alternative learning experience, such as a VET qualification leading to a degree program. While there was considerable diversity in the range of pathways available to young people, the report suggested more work was needed on selection decisions undertaken by young people and on general concepts associated with employment and the world of work and career planning. It further noted that the wide range of career programs and service providers could be better coordinated to avoid duplication and enable easier navigation for young people. Recommendation 41 stated that 'research be conducted at a national level into immediate and longer term post-school outcomes of students to better evaluate the effectiveness of VET in assisting students into career pathways' (p.272).

The concern over young people's transitions highlighted in the OECD's (2000) review of the transition from initial education to working life was reflected in the literature of other international and national organisations. These also drew attention to the advantages of vocational education in extending and improving the pathways for young people, but in addition to the need for career guidance to assist this process (Bainbridge et al. 2003, pp.3, 18, 20; National Association of Schoolmasters Union of Women Teachers 2004, p.3; United Nations Educational, Scientific and Cultural Organisation [UNESCO] & International Labour Office 2002, pp.2, 8, 10, 35). While there were similar educational trends across Europe (Du Bois-Raymond & Blasko 2003, p.35), transitions had become more varied and less standardised, and a considerable proportion of cross-national variation was to be found in three country clusters (Muller & Gangi 2003, p.18). To address this, a collection of essays analysed the potential of a more holistic approach to policy ('integrated transition policies') in Europe (Walther & McNeish 2003). Stern also described new pathways which combined vocational and academic education in the United States (Stern 1999). These pathways, overall, have led to increased university enrolment and have also had the overall benefit of leaving students' options open, with enhanced opportunities to return to further education at a later stage. These initiatives were supported in federal and state legislation; however, in the 'relatively disorganised policy-making environment for US education' (p.203), local control has required a significant level of coordination to create coherent pathways.

Despite the various policy initiatives of recent years, the Dusseldorp Skills Forum's 2004 report on how young people in Australia are faring found that transition from education to work was not becoming any less troubled for young Australians (p.37). There was little sign of improvement, despite relatively strong economic conditions and some policy initiatives. It found that youth pathways were more exposed to economic volatility than previously and that policy

interventions were important because the interface between education and the labour market is relatively 'loosely coupled' in Australia and the pathways more individually constructed (pp.37–8). However, the report anticipated that, following the 2004 general election, there would be an opportunity to build on the momentum of the previous few years: to align Commonwealth–state youth transition policies; to ensure that personal transition support is available to all young people who need it; and to put in place effective local programs connecting young people to education and work (p.3).

Selected initiatives facilitating learning pathways

Pathways within and between the VET and the higher education sectors

Articulation, recognition of prior learning and credit transfer

Recognition of the need to implement articulation and credit transfer arrangements internationally and in Australia is not a recent development (UNESCO & International Labour Office 1964; Parkinson, Mitchell & McBeath 1986; Haas 1999). In the 1980s in Australia a number of higher education institutions granted advanced standing for prior TAFE studies under local institutional arrangements. However, there were issues related to inconsistent application of policies, and concerns by some in higher education over processes given, for example, perceived differences in the conceptual complexity of courses.

Following reforms by the Commonwealth Government to the higher education system in the late 1980s, where one aim was to ensure smooth 'upward' movement between the two sectors, greater national emphasis was given to enhancing pathways and to the need for consistency in articulation and credit transfer arrangements (Ramsay et al. 1997, p.12). Various reviews and reports such as the Finn Review of 1991, the Baldwin Report of 1991, the Carmichael Report (1992) and the Mayer Committee (1992), addressed transition issues, while the establishment of ANTA in 1993 gave additional national emphasis to the debate (Golding 1999b, p.7). And in the early-to-mid-1990s, further development saw policy and procedures on recognition of prior uncredentialed learning from both public and private providers being formulated. By the mid-to-late 1990s most states and territories had credit transfer arrangements which catered for the needs of many students (Trembath, Robinson & Cropley 1996; Burns 1997; Ramsay et al. 1997). However, many continued to experience transition problems (Alba, Lewis & Dawes 1993; Cohen et al. 1997; Harris, Sumner & Rainey 2005).

In the early 1990s, in addition to the focus on movement from VET to higher education, there was emerging interest in enhancing pathways in the reverse direction (OECD 1991; Golding & Eedle 1993; Golding 1995; Millican 1995). Further, as part of the national training reform agenda, a competency-based VET system was introduced, with recognition of prior learning and credit transfer being key features (Bateman & Knight 2003, p.7). Then in the mid-1990s, recognition of prior learning was identified as a key component of training packages, and registered training organisations had to ensure recognition of existing knowledge and skills of students (Bateman & Knight 2003, p.38). However, progress on implementation was less than desired (ANTA 2003d, p.19, 2003e, p.11).

The development and implementation, from the early 1990s, of policy fostering greater collaboration and cooperation, was being shaped by a range of critical factors, such as globalisation, growth of a knowledge-based economy, rapid technological, social and economic change, changes in the workplace and the organisation of work, and the growing trend for lifelong learning (Department of Education, Science and Training 2002, paras.14–19; Eltis 2002, pp.77, 80). These factors have also been influential internationally, where greater emphasis is being given to learning throughout life in a number of countries (International Labour Organisation 2002; OECD 1996; UNESCO 1996).

Addressing differences in the learning environments and bridging programs

The different teaching and learning environments in VET and higher education have often created challenges for students in adapting to the new environment (Cameron, Kennedy & O'Brien 2000; Dickson 2000). Conroy, Pearce and Murphy (2000) highlighted the major dysfunction between the underpinnings of curricula in the sectors (p.3), a point reinforced by Moodie (2003), who has argued that the implementation in VET of training packages with an industry-based competency focus has inhibited systematic efforts to match VET curricula to higher education. Rumsey (1997, cited in Conroy, Pearce & Murphy 2000) has noted research on assessment practices, with suggestions to address the competency-based, non-graded assessments in VET and thus assist articulation to higher education. Other efforts to assist students in dealing with these differences have been through, for example, the work of academic support staff, such as study skills advisors and pathways officers. Some universities, for example, Flinders University, offer foundation or similar bridging courses which are designed to assist people who lack essential knowledge and skills for university studies. However, it needs to be noted that movement from one sector to another is not hard for all learners (Trembath, Robinson & Cropley 1996 quoting work of Ling & Devlin 1993; Golding, Marginson & Pascoe 1996).

Dual-sector universities, shared campuses and joint courses

Dual-sector universities often provide pathways between VET and the higher education courses which they offer. Victoria University of Technology is such an institution. In 1997, it introduced a policy providing for access to one of the university's programs and support for student learning through a range of measures, including the development of flexible learning pathways (Wheelahan 2001, p.2). Implementation of the policy has been successful: an evaluation found that students were generally positive about their experiences and staff were supportive of the framework, including its facilitation of articulation (Wheelahan 2001, pp.3, 7).

Some institutions in different sectors have established arrangements to share campuses and facilitate pathways. The New South Wales Central Coast campus at Ourimbah, comprising the University of Newcastle, Hunter Institute of TAFE, Central Coast Community College and the Central Coast Music Conservatorium, provides seamless learning pathways for students.

Joint course initiatives made on an institution-to-institution basis involve intersectoral institutional collaboration in the development and implementation of courses. Ticknell and Smyrnios (2004, p.50) refer to these as formal articulation programs. The components of the courses are taught and assessed by the respective institutions. Successful students are guaranteed a university place and advanced standing. Frequently these courses have multiple exit points, and students may be enrolled concurrently in both institutions. Examples of these arrangements in South Australia are those between Regency Institute and the University of South Australia and, in Victoria, between Deakin University and Box Hill Institute of TAFE.

Pathways between school, further education and training and employment

VET in schools, school-based new apprenticeships

In the mid 1990s Commonwealth Government funding was provided for the development and delivery of vocational programs in schools. These had to relate to or provide VET certificates within the Australian Qualifications Framework and senior secondary certificates endorsed by state/territory boards of studies, and articulate with apprenticeships/traineeships, employment and further training (Ministerial Council on Education, Employment, Training and Youth Affairs 2000b, p.14). Research in the late 1990s revealed that participation in such programs was high for those students in the lowest achievement quartile, for students who lived in rural areas, for students whose parents had completed only secondary school, and for those whose parents were in manual occupations. Participation was also more likely among those who saw school providing them with the opportunity to learn things that would be useful in adult life (Fullarton 2001,

pp.vii–ix). Participation in the program for two years appeared to facilitate achievement of positive employment and educational outcomes (especially for young males), although it was less likely to provide a pathway to university study (Fullarton 2001, p.54).

In 2000, some significant achievements were highlighted. These included the development of policies, mechanisms to enhance pathways, a significant increase in the numbers involved (60 000 in 1996 and 136 710 in 1999), and approximately 90% of secondary schools providing programs (Ministerial Council on Education, Employment, Training and Youth Affairs 2000b, pp.20–4). This figure had increased to 95% in 2004 (ANTA 2004d). The Allen Consulting Group noted that, in the context of the restructuring of the youth labour market, institutional flexibility and cross-sectoral coordination were essential for enhanced transition. They reported on widespread transition activity and strong progress in several OECD transition framework features, including ‘explicit and well articulated pathways’ (Allen Consulting Group 2003, pp.4, 9–10, 19–22). Subsequently, in an overview of VET options for young people, significant progress has been confirmed (Woods 2005).

School-based New Apprenticeships were designed to provide opportunities for young people to gain qualifications and engage in employment, while undertaking the senior secondary certificate (ANTA 2003c, pp.1, 3). In 2001, enrolments were around 2% of total VET in Schools enrolments and 3% of total New Apprenticeships (ANTA 2002, p.1). In 2003, 12 300 students commenced these New Apprenticeships (Woods 2005, p.7). Smith and Wilson (2003) noted that these school-based New Apprentices were more likely not to be living in a capital city, less likely to aspire to university study than other students, and seemed to be disproportionately drawn from lower socioeconomic groups. Although there have been issues in the implementation, the program has had many benefits for young people in acquiring vocational skills (ANTA 2002, p.6).

Enabling courses

Enabling courses which, in the VET sector, are lower-level preparatory and prevocational courses have been developed to assist smooth transitions for young people, particularly those at risk (Phan & Ball 2001, p.8). Dawe (2004) pointed out, that for many of these students, an important objective of the various courses is to increase young people’s self-esteem, confidence and motivation for further study and employment.

The 1998 enabling course enrollees comprised over 5% of total students in VET. Indigenous students, those from non-English-speaking backgrounds, those with a disability, students from lower-than-average income families and/or those who had left school prior to starting senior secondary school were more likely to be enrolled (Phan & Ball 2001, pp.8, 37; Dawe 2004, pp.6, 7). There have been many positive outcomes reported from the courses, including gaining employment (Phan & Ball 2001, pp.6, 37).

Selected state initiatives

The Allen Consulting Group report into transition programs (2003) highlighted a number of state initiatives to strengthen pathways. Many of these were VET in Schools and school-based New Apprenticeship programs. However, there are other examples. In New South Wales initiatives included five multi-campus senior colleges offering a flexible curriculum, including TAFE and university courses, a gateways program (for those who may not complete Year 12), and links to learning—community-based education and training initiatives. Queensland had as one focus the achievement of a seamless set of options for students in post-compulsory years (Allen Consulting Group 2003, pp.12, 13, 15). A strategy in South Australia targets support for Year 12 students (or their vocational equivalent) in transition to independent adult life. Southern Futures in South Australia is a regional network that facilitates strategic collaborative partnerships between education, training, industry and community groups to support young people and adults in their transitions between different levels of schooling and post-school pathways. Strategies to improve retention rates and identification of barriers impeding access to pathways were some of the Western Australian initiatives, while pathways planning was a key feature in Tasmania, the

Northern Territory and the Australian Capital Territory (Allen Consulting Group 2003, pp.16–18). In Victoria, major initiatives included the establishment of local learning and employment networks, which are intended to improve learning and employment opportunities for young people (Department of Education, Employment and Training, Victoria 2000), the Victorian Qualifications Authority, which supports articulation and has developed a credit matrix as an approach to describing and recording achievement (Victorian Qualifications Authority 2005), and the Victorian Certificate of Applied Learning, designed to smooth pathways.

Summary

Policy documents of the three major legislative bodies concerned with young people's transition from school to further education and work have articulated common themes over recent years. These have stressed the need for seamless transitions between school, VET and higher education and for a wider range of pathways. The requirement for career services to support young people in their enhanced choices has also been agreed upon. However, progress in improving pathways for young people has not been accompanied by corresponding progress in the provision of career support to facilitate these pathways. This is currently being examined by the federal government.

A range of initiatives has been undertaken to facilitate learning pathways within and between the education sectors and employment. These have included articulation, credit transfer and recognition of prior learning arrangements; appointment of specialist staff, such as skills advisors and pathways officers; and the provision of enabling or bridging courses for those lacking knowledge and skills. Inter-institutional arrangements such as joint courses, learning opportunities on shared campuses or in dual-sector institutions, have been established. School-based initiatives such as developing vocational streams have also been implemented widely. While there have been difficulties associated with a number of efforts to enhance pathways for young people, over recent years there has been solid progress and many notable successes.

Profiles of students with experience in both sectors

Statistical data relating to domestic VET students¹ and domestic higher education undergraduate students were used to contribute to the contextual background for this investigation. These data were sought from NCVET and the Department of Education, Science and Training. Not all data could be provided and changes to the collections were noted. Further, the Department of Education, Science and Training advised that data relating to prior studies were essentially collected from commencing higher education students. Hence the discussion of profiles of students in each sector is based on the total domestic VET student cohort with higher education achievement and commencing domestic undergraduate higher education students with complete or incomplete TAFE qualifications. These differences have limited the comparisons that can be made on the profiles. A further limitation results from the inability to track individual students who have moved intersectorally. Consequently, analysis of these extant data contributes in only a minor way to addressing the research questions. Detailed discussion of the data is presented in appendix C; here only a brief summary of these profiles is given.

Overview profile of young domestic VET students with higher education achievement

In the period 1996–2003, there was an increase of around 30% in domestic VET students with or without higher education achievement and also for those aged less than 25 years; there was around a 12% increase for those aged 25–29 years.

By contrast, nationally there was a marginal reduction in the number of VET students with higher education achievement, although since 1997 there has been an overall increase. This pattern of decline relative to 1996 but growth from 1997 was reflected in most states and territories. There was a significant decrease of almost 60% in the number of students aged less than 25 years with higher education achievement over the period, with only one state registering an increase. From 1997, the decline was 14%. For those aged 25–29 years, there was a reduction of around 11% between 1996 and 2003, with one state having an increase, although from 1997 there was overall growth of just over 11% (figure 1).

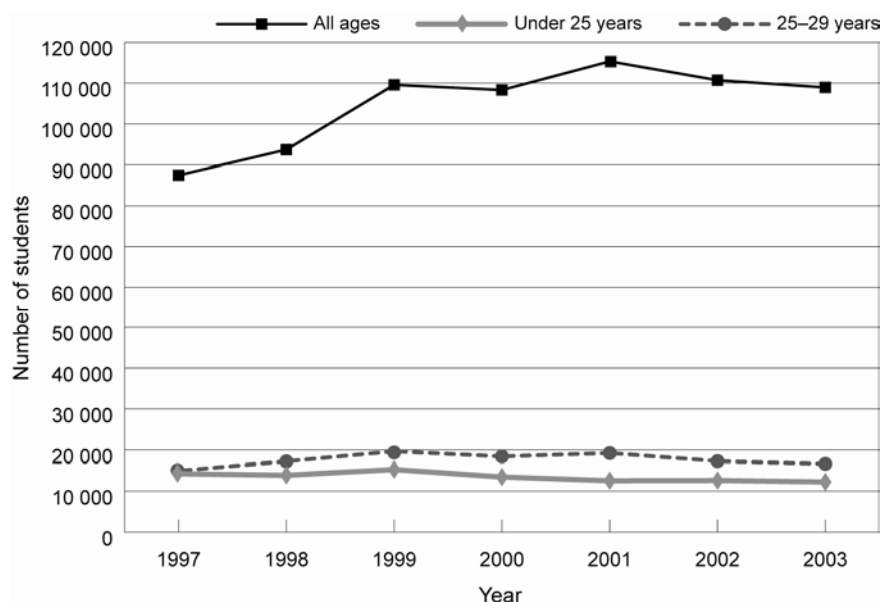
Females have dominated the student profile and increased this dominance over the years. Of the total age cohort with higher education achievement, the percentage of females has increased from around 50% in 1996 to 57% in 2003. In the youngest group it has grown by a similar amount, from almost 50% in 1996 to almost 58% in 2003, while for those aged 25–29 years it has gone from just over 50% to almost 60%.

Among all domestic VET students with higher education achievement, the business, administration and economics field was the most attractive to the two young age groups (that is, under 25 and 25–29) in each of 1996 and 2001. Arts, humanities and social sciences and

¹ The term 'domestic VET students' does not include fee-paying overseas students or enrichment studies students; in other words, not all students enrolled in vocational education and training.

engineering and surveying also had solid appeal in both 1996 and 2001. With the change from field of study to field of education classification in 2002, management and commerce was most attractive to the three cohorts. Society and culture and engineering and related technologies were also popular. Education had some attraction to the total group and to those aged 25–29 years in both 2002 and 2003, while the fields of food, hospitality and personal services and creative arts had some appeal to the youngest group.

Figure 1 VET students with higher education achievement



Source: Data sets as at November 2004 for domestic students with higher education achievement, 1996–2003 (NCVER)

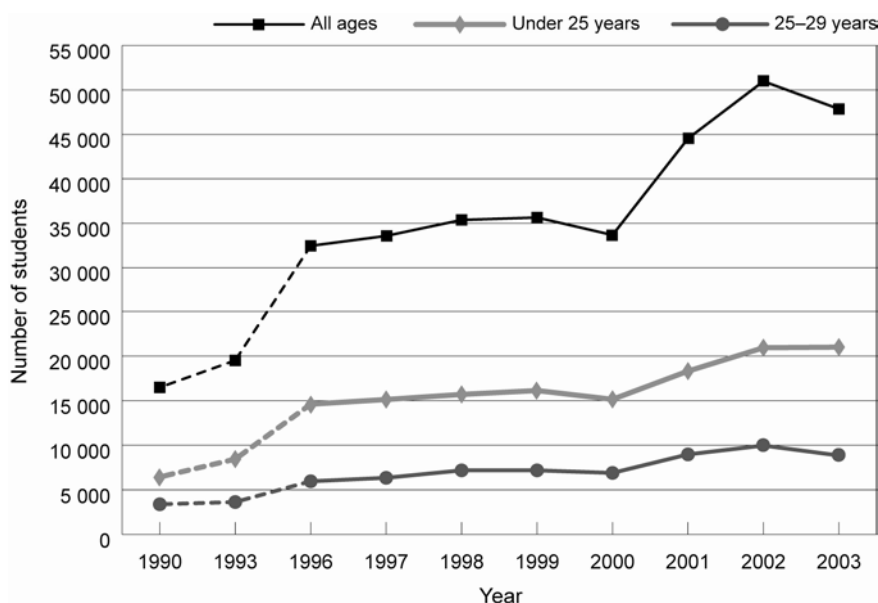
Overview profile of young domestic higher education students with experience in the TAFE component of the VET sector

The total number of domestic undergraduate students, irrespective of whether or not they had prior complete or incomplete TAFE qualifications, increased by almost 24% between 1993 and 2003; those aged less than 25 years increased by 25% and those aged 25–29 years by almost 29%.

In relation to the total undergraduate cohort and the groups of those aged less than 25 years and those aged 25–29 years with complete or incomplete TAFE qualifications, numbers more than doubled in each group between 1993 and 2003 and, for each, the increase from 1996 to 2003 was well over 40% (figure 2). In all states and territories from 1993 to 2003, for each cohort there was growth, this in many cases being substantial and for each age group.

Nationally, the percentage of females among those students with complete or incomplete TAFE qualifications increased from just over 50% in 1993 to almost 55% in 1996 and then to above 58% in 2003. For those aged less than 25 years it grew from just over 51% in 1993 to almost 56% in 2003, and for those aged 25–29 years, from 48% to over 52% in 1996 and just above 57% in 2003.

Figure 2 Higher education students with TAFE experience



Note: Dashed section indicates three year increments.

Source: Data sets as at April 2005 for domestic undergraduate higher education students with complete or incomplete TAFE qualifications, 1990, 1993, 1996–2003 (Department of Education, Science and Training)

The most popular fields of study for the two young age cohorts of domestic undergraduate students with complete or incomplete TAFE qualifications in each of 1993, 1996 and 2000, like those for domestic VET students with higher education achievement, were business, administration and economics and also arts, humanities and social sciences. Also attractive were science and education. In the years 2001 and 2003, following the change of field of study to field of education classifications, nationally the three most attractive fields for those aged less than 25 years were management and commerce, society and culture, and education. In 2001, health was the fourth most popular, replaced in 2003 by information technology. For those aged 25–29 years, the most attractive fields were the same as those for the youngest group, but with society and culture being more popular than management and commerce, and with health being fourth most popular in both 2001 and 2003.

Summary

For young domestic VET students aged less than 25 years and 25–29 years with higher education achievement, there were decreases in the numbers over the period 1996 to 2003. From 1997 to 2003, while there was a decrease for the youngest group, the next youngest increased. Females generally made up a higher proportion of enrolments than males in the young groups, with this dominance increasing over the period to 2003.

To the year 2001, the business, arts, engineering and health areas of study were particularly attractive, with the appeal of business and engineering fields tending to decline, and arts and health areas growing over the period. In 2002 and 2003, the management, arts and engineering areas were popular.

The number of young, commencing, domestic undergraduate students in higher education with complete or incomplete TAFE qualifications increased significantly over the period 1993 to 2003. Females dominated, with this domination growing over the period. Business, arts, education and science areas of study were most attractive to 2000. The appeal of business tended to decline,

while that of education grew. From 2001, management, arts, education and health areas were the most popular.

While tracking individual students is not possible from national data, these profiles over the past decade nevertheless illustrate that a substantial number of students have had experience in both sectors. From these profiles, we can therefore infer that pathways between the VET and higher education sectors are indeed possible and are being travelled. The only way of obtaining a clearer picture of this movement and what these pathways actually look like is by investigating the educational histories of individuals through interview. The next section makes a start on this process.

Experiences in moving within and between the sectors

The third and main section of this report explores the experiences of 49 students who have moved within and between the VET and higher education sectors. This group was purposefully chosen as being in a uniquely informed position to reflect upon their educational journeys within a national environment promoting policies of seamless pathways and program initiatives to broaden choices for learners. The patterns of their learning moves are examined. This is followed by an analysis of their use of career development services, their multiple learning moves, and perspectives on their educational journey as a learning pathway. This section grounds the previous contextual sections on policy initiatives and statistical profiles in the lived experiences of these 49 students, as they illuminate how such learning moves are experienced in reality.

History of learning moves

Number and nature of moves

The interview data illustrate that these participants had moved freely and frequently between and within the tertiary sectors and that VET is a vehicle that facilitates movement.

The total number of moves undertaken by the 49 participants was 165, with 80 into higher education and 85 into VET. The first transition was from school into one of the tertiary sectors. All participants had a history of study in the alternative sector, so by definition all had a minimum of two moves. The total number of moves for each participant ranged from two to seven, with the median being three, and with three-quarters of the students making three or more moves.

Following the transition from school, the educational portrait of these participants includes 64 intersectoral moves and 52 intrasectoral moves. There were more moves from VET into higher education than the other way (64%, cf. 36%) and more moves within VET, both for the same and for different fields of education, than within higher education (60%, cf. 40%).

Field of education

The educational histories of these participants indicate considerable movement within and between the sectors, as participants attempt to pursue both the same and different fields of education; the histories also indicate that VET functions as an effective bridge to further education. As one interviewee concluded: 'it is more of a gradual change coming through the TAFE system'.

Of the 116 tertiary sector moves, approximately 40% were to the same field of education, with 60% to a different field of education. For those who only made one intersectoral move, most of these were into a different field of education, but when intersectoral movement is mapped against field of education, there are some interesting findings (table 1). Students moving from higher education to VET were much more inclined to enter a different field of education from those moving from the VET sector into higher education. This confirms the conclusion of an earlier research study in which students with higher education experience were found to enter a different

field of education in VET in order to improve career prospects in their current field of employment (Harris, Sumner & Rainey 2005). This is certainly the case in the current study, where graduates were entering a different field of education for their own professional development, often at the behest of employers.

Table 1 Moves within and between sectors

	Same field of education		Different field of education	
Intersectoral moves (64)	15	VET to HE	26	VET to HE
	4	HE to VET	19	HE to VET
Intrasectoral moves (52)	16	VET to VET	15	VET to VET
	11	HE to HE	10	HE to HE
Total moves	46		70	

Note: VET = vocational education and training sector; HE = higher education sector

However, despite the apparent shift of interest indicated by moves to different fields of education, participants were often very consistent in their interests. From the evidence in this study, the fields of education appear to be an artificial construct when it comes to the lived experience of the students. For example, movement from carpentry to team leadership to natural resource management to environmental engineering involved three changes of field of education, but for that particular individual it was a natural progression in terms of a developing interest in natural resources and a desire for career progression. Similarly, movement between nursing, sign language, counselling, diabetic education, immunisation and workplace training was a natural progression for the person wanting to develop a career in health counselling, even though it involved five changes in field of education, three intersectoral and two intrasectoral moves.

Some students undertook certificates in such areas as administration, hospitality and information technology in order to support themselves during their other studies or as a ‘fall back’ for a more assured income. An extension of this is where students were planning for a future career change when their current career might not be possible, such as providing for a career in an interest area. An example given was fashion—when anticipating ‘burn out’ in the current field. Some students were required by their employers to complete workplace training, government practice, management or information technology certificates, which did not necessarily have any direct link to their area of expertise but which were considered necessary for their professional development. Occasionally students made a foray into a completely different area of interest, but returned to their original field of interest, such as from accounting to philosophy to business studies, or accountancy to hospitality to commerce.

There were a number of students who made very extreme changes in field of education, often in the first intersectoral move; for example, from electronics to philosophy and Spanish, or from accountancy to forensic chemistry or from archaeology to law. These moves were attributed to a change in their area of interest. When such extreme changes occurred later in their educational careers, this was usually due either to some practical factor, which prevented their pursuing their original interest or from a genuine desire to experience life, or for personal fulfilment. But even in these cases, there were themes evident in their study which the individuals managed to meld together in a unique career at the end of their formal study; for example, shifting from civil aviation to dental surgery to move into a career as a dental surgeon in the RAAF. Some students, of course, showed consistent interest all the way through their educational career.

In summary, it was possible for frequent movement between the sectors to support a variety of career interests and motivations, culminating in uniquely personal career pathways.

Employment while studying

The picture overall is of a very hard-working group of students who demonstrate great flexibility in both their work and study patterns. Evidently, as far as the two systems were concerned, this

was possible, indicating that processes were in place to support these patterns. Nearly 70% of students in both sectors worked while studying, and the largest percentage of these worked full-time. However, while higher education students usually worked *either* part-time or full-time (24%), more VET students worked full-time only (20%) or worked *both* full-time and part-time during each sectoral attendance (10%). Also, while a higher percentage of higher education students had part-time work only, VET students who worked part-time had more part-time jobs on average during their attendance at a particular institution.

The majority of students worked during their period of study, not only juggling full-time and part-time work with full-time and part-time study, but having multiple jobs during that period.

Use of career services when moving within and between sectors

The interviewees were asked a group of questions relating to the career services they may have used to assist them in their learning pathway. Up to and including the fourth move, the majority of students were not aware of the career services available to them. Although 55% at the time of leaving school were not aware of any career services, this increased to 73% at the second move and to over 60% at the third and fourth moves. Even by the fifth and sixth moves, one-third to a half of the students were still not aware of any career services. However, this lack of awareness was of little concern to the majority of students because of a corresponding lack of awareness that they might want or need career assistance. They used words such as ‘irrelevant’, ‘didn’t need to’, ‘ignorant’, ‘not really looking’, ‘no real career direction’, and ‘thought jobs were easy to get’. They knew what their next step was going to be and therefore did not seek career assistance.

Those respondents who had knowledge of career services became aware of a wider range of services as they made more moves, although they often chose not to use them. In fact, career services were not used for approximately one-half of the total 165 moves. The most common help sought was for information, these sources being consulted in one-fifth of all the moves, with half of these sources being websites.

Ease of access was the main criterion for choosing particular sources of career support. However, reasons for using sources were given for only one-third of the total moves. The reason for not using any support at all was a belief that nobody could help if the person themselves didn’t know what they were interested in, and that interest in a specific field was the principal criterion for choosing a pathway. Some typical responses were:

Nobody can advise you on your career if you don’t know what you want to do.

Once you have got a clear interest and a goal, then you just know what you want, you don’t need any guidance.

I was so vague about what I wanted or expected, or I didn’t have a clue what questions to ask.

Looking back on it, I was 17 and you don’t know what you want to do. I think it is more of a case of finding your way in the world rather than knowing what you want to do as a career. I think the people who know what they actually want to do are a very small number in the population.

I’m self-motivated, and don’t need any help.

However, this position was likely to be the result of ignorance about the process of career guidance, or having received inadequate career advice, or from services not being accessible. One respondent admitted: ‘Sometimes now I think it would have been better to go and have a look what long-term applications of my choice would have been’.

For three-quarters of all moves, respondents believed that it was easy to make a decision about the type of learning they would undertake. For the majority of these, it was easy because they knew what they wanted to do, usually based on an interest in the field of study. The next largest group found the decision easy because it was the obvious option, usually based on previous experience or study, and they felt they had limited choice. About one-tenth of the moves were reported to be easy because students had sufficient experience and had done sufficient research to make the actual decision an easy one.

About one-quarter of the respondents found the decision difficult. The first transition was particularly difficult for people leaving school, not knowing what they were interested in or ‘what [they] wanted to do for the rest of [their] life’; ‘all I knew was from what I saw in movies’. Many found the enrolment process, as well as the selection of courses and subjects, difficult, as the number of choices available seemed large. This was exacerbated by advice to keep their options open, sometimes by doing a general arts degree. Some decisions were difficult because of the many practical issues to be considered: finance, travel, being a mature-age student, the problems of making a complete career change, conflict between work and study, or dealing with others’ attitudes. A few students found the decision difficult because of experience of unsuccessful previous study.

It is apparent that exposure to career support, espoused in policy, was not happening for many of these participants. The overall picture is of a lack of awareness of career services—what they are, what they do and how they can help. While many students survived and constructed valid pathways independent of formalised career services, many also experienced tensions. Choices were often made on the basis of current interest and, while this is a valid motivator, it is also possible that pathways may have been shaped differently or been more insightful with career support. This, in effect, may have resulted in more efficient pathways, from both a personal and social perspective.

Making the moves

The first learning transition from school for 31 (63%) of the interviewees was to courses in the VET sector. These included traineeships, prevocational courses, apprenticeships or certificates. The remaining 18 (37%) went to university.

Many interviewees had multiple moves, which included both inter- and intrasectoral movement. There were, in fact, 12 (24%) who moved only twice—the first time from school to tertiary education, and then again into a different tertiary sector (a necessary criterion for inclusion in this study). With the other three-quarters of this sample, 23 (47%) had three; five (10%) had four; three (6%) had five; five (10%) had six; and one (2%) had seven. Of the twelve with just two moves, most (nine) moved from VET to higher education as their second transition.

The first transition—from school to the tertiary sector

With their first transition from school, over half of the interviewees going in each direction intersectorally were clear on their learning choices. Some had a vocational goal, for example, to become an archaeologist, office worker, information technologist, nurse, hairdresser, chef, hospitality worker or psychologist, and felt their choices were quite clear. Others wanted to pursue a particular interest. Several had choices essentially forced on them because, for example, their Year 12 Tertiary Education Rank (TER) was inadequate for university and, either they had to select an alternative as the only option, or were pressured by family to pursue an alternative. Some felt they had choices but these were not particularly clear, for example, wanting to do a trade but unsure of the area, being advised by school counsellors on university studies but unsure of which course to undertake, or being advised simply to go to VET and then immediately afterwards obtain employment. Others felt they had no choice or were unclear, for example, ‘could think of nothing better to do than study at university’, ‘no idea what could be achieved

from an arts degree’, ‘always intended to go to university but unsure of the area to study’ or enter a traineeship, and not repeat Year 12. However, the overwhelming majority believed that their learning choices were clear with this initial transition.

Reasons for selection of the course for this initial learning transition were also clear to most, and were varied. A vocational focus was important to a number of interviewees, as the studies were seen as a way into employment or to earning money, with the promise of better opportunities as their career developed. Several were currently in jobs and they wished for change or for advancement. For some, strong reasons stemmed from parental or other family encouragement or pressure or encouragement from friends. Other factors influencing their choice included the location of the institution offering the course or the reputation of the institution and/or chosen course of study, while some noted that they had no choice of institution, as the one chosen was the only one where their preferred course was available. For others, being comfortable with the level of the course; for example, enrolled nursing compared with registered nursing, was influential, while using the course as ‘a stepping stone to university’ was a factor raised by several.

Eighteen (almost 60%) of those going to VET and 11 (just over 60%) of those going to university encountered no barriers. For those who did encounter barriers, finance was a concern, along with transport and home location. Three interviewees moving in either direction had concerns over costs, while four moving to higher education and five to VET had concerns over transport or distance from home to the institution. Other barriers included frustration with not being provided with adequate or accurate information, anxiety and concerns over ability to undertake chosen courses, age (being too young), inadequate Tertiary Education Rank score and associated difficulties in getting into a course, and not liking the institution. Several identified having to work while studying as a barrier. Interviewees suggested that, to overcome some barriers, better advice and additional accurate information could be provided, courses could be offered in more central locations, and there could be more flexibility with class schedules.

For a clear majority moving in both directions, expectations were met and, in a number of instances, exceeded. This was the case for over 60% of those moving to higher education and almost 60% for those moving to VET. Of those who felt that expectations were not met, two (11%) to higher education and eight (26%) to VET provided a range of reasons. These reasons included: difficulties in studying at night after a full day’s work and finding the distance education mode hard; the environment being more ‘laid back and less formal than school’; or, alternatively, finding the environment too much like school; or expecting to do well based on school performance but not achieving this due to greater competitiveness; and ‘not getting sufficient from the course in terms of job ready skills’.

Most interviewees had some form of goal from the transition. Nine (50%) who moved to higher education and 21 (68%) who moved to VET were in this category. For many, some form of vocational goal, such as completing the qualification to get a job or a better job or further enhancing career opportunities, was central while, for a small number, this first learning transition was a stepping stone to a further qualification that would lead to an employment goal. However, some of those interviewed did not have a long-term goal for their transition. Among this group of nine (50%) who moved to higher education and ten (32%) to VET, a number had short-term goals, which included using the qualification at a later date for credit in a higher education qualification, being aware of the vocation to which the qualification would lead but still having no specific goal, ‘just completing the qualification’, seeing the qualification ‘along with part-time employment as a springboard to a career’, or ‘completing it to open doors’, particularly vocational doors. So, in the case of this initial transition, the choice was clear for many, with vocationally related reasons and goals for undertaking the transition dominating. A number encountered a range of barriers, yet expectations were largely met.

The second move—within the tertiary sector

All interviewees had at least a second learning transition, 26 (53%) to VET and 23 (47%) to higher education. Many felt their choices were clear, and overall there was more clarity than with the first transition. Just over one-half of those transiting to higher education and over three-quarters of those moving to VET were in this category. Included were several with forced choices, since employers required them to study a particular course (for example, new graduates in the South Australian public sector having to study a government certificate in the VET sector). Others chose to study while working part-time in order to get a more secure job, or the qualification was needed for a particular career, a change in jobs or for professional registration. Some also chose the course because it interested them. For a minority of transferees, the choices were not as clear, for example, wanting to do a degree, but not specifically sure in what area; selecting a course that would be interesting; selecting a course in VET since university was not an option; or ‘doing a course that could lead to a government job’.

Reasons for the move, like those for the first transition, were often vocationally focused. For several, it was an employer requirement and/or part of an existing job; for others, it was to enhance career prospects, change jobs, or as a requirement for a further qualification, for example, completing a prevocational course before moving to an apprenticeship. Several chose the particular transition for interest, such as studying something different like philosophy, or studying in a bridging course as a stepping stone to a higher qualification. A number of interviewees in discussing why they had chosen a specific course at a particular institution referred to the influence of parents or friends or advice from counsellors; the importance of the distance study mode when combining family work and study; course flexibility; helpfulness of the institution; institutional location; reputation of the institution and/or qualification; or a cheaper option, particularly the difference between TAFE and higher education.

As with the first transition, a number identified barriers to their second move. Twelve (46%) of those who moved to VET and 12 (52%) of those who moved to higher education encountered no barriers. However, of those who experienced barriers, two (9%) transiting to higher education and five (19%) to VET noted financial issues. Travel and home location were mentioned by several, while time management to deal with work/family/study was also raised. Other barriers included problems with a course—it was being offered for the first time—and personal matters; for example, where partners or parents were not supportive of study; a lack of child care support; or a gender imbalance in a specific course (a male in a child care course).

For most (fourteen [61%] transiting to higher education and 21 [81%] to VET), the move met or exceeded expectations. A number of interviewees were very complimentary of the courses and/or the learning environment. For others, the learning experience was more difficult than had been anticipated, or the institution was seen not to be as good as the one of their first learning transition, or the course as offered was not as was advertised. Again similar to the first learning transition, most had goals which were frequently vocationally focused and included career change or enhancement. Nineteen (73%) of those moving to VET and 15 (65%) to higher education had such goals, although not in all cases were they clear, long-term goals. Some were unsure about goals, making reference to seeing whether the course could help them decide what to do; finding the course did not prepare them for what they wanted to do; or completing a degree simply for the sake of completing it.

Subsequent moves within and between the sectors

This portrayal of the interviewees’ second moves tended to be repeated in their subsequent moves. The responses given by the participants are therefore summarised below in a series of tables. The majority in each sector reported that, at the time of moving, they were clear on their learning choices. Reasons why their choice was clear or unclear are included in table 2.

Table 2 Reasons for the participants' choices of course being clear or unclear

Clear	Not clear
The course a requirement of employment	Undertaking a 'course that had to be at university'
Working in an area and undertaking a course in that area	Selecting a course and then being counselled into another vocational area
Undertaking a course that would enable later entry to a course at a higher level of specific vocational interest	Entering a degree course when should have been counselled into a bridging course
Wanting to study a specific course	
Studying in a course related to a career change	
Personal interest	
Having been unemployed and needing to 'freshen up resume'	

By far the most common category of reasons given by those moving in either direction for moving was the vocational (see table 3). However, other factors were mentioned as playing a part, such as the institutional location and reputation, course reputation or study mode, as well as a range of personal influences. Several saw the transition as a natural progression from their most recent studies, while interest was also noted.

Table 3 Factors influencing the participants' moves within and between sectors

Factors reported by the participants
<i>Vocational</i>
Career advancement ('not wanting to stay in a dead end job and wanting to advance')
Requirement of employment
Changing careers; moving into a new career ('bored in current job and wanting to do something interesting to lead to another employment area')
Improve professional practice
Up-skilling to ensure currency in present profession
<i>Financial</i>
Providing an opportunity to improve financial situation
Affordability of the course
<i>Institutional</i>
Location of institution; location and reputation of institution; only institution where the specific course was offered
<i>Curricular</i>
Quality of the chosen course; reputation of course; course had a reputation for academic rigour
Qualification being a requirement for a higher qualification that was a goal; qualification being the next step after completing lower-level qualifications; goal of completing the [VET] course and moving onto university studies
Flexibility of study mode
<i>Relational</i>
Advice from potential employers
Influence of family, friends or work colleagues
<i>Personal</i>
Following interests; undertook the VET course for personal interest
Enhancing self-esteem

Around half considered that they did not encounter any barriers. Table 4 gives some of the difficulties to be overcome in moving within and between sectors for those who did.

Table 4 Barriers reported by participants in moving within and between sectors

Factors reported by the participants
Financial issues
Time in juggling work; timing of study and work
Family demands and study; juggling family demands and the scheduling of classes; family
Timing of classes during the day rather than evening making it hard to get time from work to attend
Travel
Having to relocate states
Difficulties in being accepted into the course
Difficulties with the transfer to university studies
Personal issues, such as being unsure whether they would be able to cope with the demands of the course
Course was academically less rigorous than previous studies and the adjustment was difficult
<u>The move to adjust to a different level and learning environment from VET was difficult</u>

A number of interviewees offered suggestions on the ways some of these barriers could be overcome. These included working part-time while studying, getting more advice and assistance from the institutions, more support from employers and scheduling some classes after hours.

Despite the difficulties, however, most felt that their expectations at each move were met. This was particularly the case for those shifting to higher education. Where expectations had not been met, participants most commonly reported that this was because of reasons relating to the curricula (see table 5).

Table 5 Reasons why participants felt their expectations had not been met in moving within and between sectors

Reasons why expectations had not been met
The course changed
The administration was below expectations
Some modules were below expectations
For the interviewee in higher education, there was concern over the lack of intellectual rigour in the course
Found the course to be unhelpful as it was at a base level
'Not really learning and developing skill quite as much as I previously thought would occur'
Completed the course which was found to be good but then was not able to get the desired level of employment which had been the motivating factor for initially undertaking the move
<u>Although the course was interesting, employers seemed to want employees who had higher qualifications</u>

Hence, as with the second learning transition, there was a strong vocational focus, with many being clear on their choices. Most had goals, often vocational, although many encountered barriers and reported that their expectations had not or had only partially been met.

Learning pathways

Meanings of 'learning pathway'

The term, 'learning pathway', was interpreted in many different ways by interviewees. Essentially, however, it was viewed as a journey of learning, notably articulated in almost all cases in terms of formal study, and comprised steps taken for vocational or interest reasons. In most instances, it was goal- or outcome-oriented, implied personal choices and was linked to careers. In some instances, it embodied notions of lifelong learning. It was most often expressed in terms of bettering or expanding oneself.

A number of key features of the term can be gleaned from interviewees' stories. The clearest feature was that it was *rarely a linear concept* to these learners. It was variously articulated as: 'quite a zigzag', 'along a curve', 'the path is never straight—it always changes and has different hooks in the road', 'a few turns in the middle', 'forks' and 'going off on an avenue of your life where you are learning something totally outside the normal'. Most believed that this was common for all learners.

Moreover, the pathway did not *have* to be straight. Two interviewees expressed this journey in these ways:

... like starting at one end and then maybe make a few turns in the middle and you don't actually have to go from one end to the other in a straight line. You can do a few different things along the way and gain experience in different areas.

... the combination of things that have happened to you, things that people have said and that working towards making decisions to better myself or better my education, so having people or things influence me to change things and to move in certain pathways, as such, plus the actual learning you do at uni—that is a learning pathway, I guess. You go on a pathway and learn on that pathway.

Nor was a pathway viewed as being continuous—a frequent description of it was as a series of stepping stones. The image was one of *fragmented or discontinuous stages*, a series of footholds with gaps between them, which the interviewees, in retrospect, were able to see as forming some sort of directional movement leading somewhere. These stages were explained as 'certain points', 'footsteps', 'the steps you take', 'the branches', and 'stepping stones that will allow me to do that so each learning is a step into the bigger pool, so to speak'.

For most, the journey was perceived as *a series of personal choices*, a journey where the individual had autonomy to twist and turn. They claimed that it was 'the choices you make in order to get to the end of your career/learning pathway':

I make my own pathways and my own decisions ... You find what you are good at, you stick to it, and if a fork comes up in the road, you make your decision for better or for worse.

... you have choices about which way you go, so the learning pathway is the study options you take up and even learning in your own workplace and where you are heading—leading you to a goal—the walk of life.

A few others, however, viewed 'pathway' as a *more deterministic* notion, as 'a thing that's been set down ... If you look through it, that path, you can see branches of where certain areas can go to', 'a series or steps or stages to have to get through', and 'specific tasks you have to undergo to go to the next step. If you want to get a job as this career, you have to go through all these'.

This was particularly perceived this way by those in professional pathways:

I guess to a certain extent it is a pathway, going on stepping stones to get you to a certain place. In this sort of profession, you generally can't get anywhere without some formal education, so your pathway is determined by where you want to go—your career structure is determined by the effort you want to put in—your passions, your experience—but if you want to get promotions, then you have to formalise it.

Another feature of a learning pathway was that it *has direction*—it leads somewhere, although where is often not known or understood. The direction was expressed as 'the end of your career/learning pathway', 'always going one step ahead', 'what you want to do which leads you to a final goal', 'in the direction of your ultimate goal', 'to gain a final goal, to where you want to get to', 'starting off at the start and continuing on to the final product', 'the large goal' and 'certain points on a pathway to get somewhere'. The direction was most commonly seen to be a 'way of bettering, expanding, learning, a way of doing this towards a goal', and 'the journey you take to gain knowledge, to better yourself'. Furthermore, there was an *air of certainty* that a pathway's

direction is towards a goal, even though it may be discontinuous and crooked: 'A pathway is always going to lead you somewhere'.

Finally, the notion of a learning pathway was recognised by some as *embodying a commitment to lifelong learning*. It was expressed as 'learning your life', 'a continuum of learning', 'the walk of life' and 'the different avenues available to you at different stages of life. Throughout your life, you have to keep learning and throughout your career'. Others directly referred to a learning pathway as a lifelong entity:

I guess a learning pathway for me is a lifelong thing. We are all on a learning pathway and discovering our way in the world and what we want to do and that can change from time to time and I think we learn every day—it's all a big learning pathway.

Interviewees clearly recognised that not only is a learning pathway *universal* (whether people recognise it or not), but also *its direction changes*. One claimed that it can change 'from time to time', while another that 'it always changes' because 'the path is never straight ... and has different hooks in the road'. Yet another described it more as an up-and-down trek than a suburban pathway:

... learning pathway? I would probably say journey—it's a road trip. Pathway seems to be very suburban. Yes, I'm going to go for a lovely walk, isn't this pretty and aren't the trees nice. For me, it has been an up-and-down journey—trying to make the right decisions and am I making the right decisions? A learning journey or trek.

Reflections on their own learning journeys

While all interviewees were able to express the meanings that 'learning pathway' had for them, many did not feel that this term was the most apt description of their learning history, or if they did, they qualified it in many different ways. Such qualifications were primarily the consequence of seeing a pathway as having a clear goal, and, given the nature of this sample as transitory students, many did not view their own journey as having a clear destination. A typical response was: 'Not particularly, because I have wandered in so many different places and I have never had a final destination in mind'. This contrasted starkly with another's view, not common, that 'it has been a pathway because each time there has been a clear objective—it was done for a reason'.

Another reason was that, because they had notions of a pathway being relatively straight, their reflections on their own journey resulted in images quite different from such notions. As one acknowledged, 'most people would go in a straight line—they don't generally do what I have done, because I have done so many extras'. They said: 'It seems to be too disjointed to be a pathway', 'mine has got a lot of roundabouts in it; it's more of a road', 'a jagged pathway', 'erratic and spaced out', 'very meandering', 'a bit more erratic than that', 'very winding' and 'it is not a pathway because in real life the pathways are not smooth, and for many, it is not only zig-zagged, but it goes everywhere'.

Other descriptions to explain their journeys included: 'a crooked path', 'very bumpy', 'very stop-start', 'strange', 'a bit of a mish-mash in the beginning', 'an adventure', 'a learning curve', 'a hop, skip and a jump', 'a bit of a zig-zag pathway', 'very hilly', 'meandering and scenic', 'messy and disjointed', 'more as erratic hops', 'intermittent', 'cobblestones', 'stepping stones', 'difficult, long, tiring, very predetermined, no choice', 'quite unstructured', 'initially hit and miss', 'hectic, stupid, challenging, eventful, stressful, fulfilling, pleasing', 'very long' and 'interesting and strange'. Collectively, these descriptions suggest a somewhat circuitous learning journey for these interviewees (giving voice to the frequent movement exhibited by these students).

One of the reasons for their frequent moving was the lack of guidance they received or used:

I was very naïve with a lot of stuff and didn't really get much information on where I was going ...

It's taken me a long time for something that could have been a lot quicker. That is probably life. Each time I have enjoyed it and it's been what I have wanted. I suppose there may have been an easier way for me to do it. When I left school, I didn't seek any career advice and at school I don't know that I got career advice either.

Another reason was the lack of fit between the courses attempted. One described the journey as 'strange, because I have done different courses that don't really relate', and another said:

I guess because my degree has nothing to do with vocational education. You get basic, broad analytical skills from the BA, but you don't get any practical knowledge ... so it doesn't feel like it followed on logically ...

Inexperience was also suggested as a reason for so many moves. Some acknowledged that at the beginning of their learning journey they did not know what they were doing or where they were going. As one said, 'Initially I thought I had that in mind, but didn't know what I was doing', while another referred specifically to their young age when making early decisions about learning options:

I guess I started at the start and took a bit of a turn and ended up on the learning pathway I wanted to take. After that initial decision, I have realised what I wanted to do. It was difficult when you first start, when you leave school and go to TAFE or uni. It was always tough at that age to know where you want to go—it takes a couple of years to decide.

Yet another reflected on the learning that comes from experience and other people, not just from formal study:

I guess to a certain extent it is a pathway, going on stepping stones to get you to a certain place ... Learning pathway is not just what you study for—it's where you learn from other people and experiences. I am a totally different person now to what I was when I first decided to do nursing and had no idea of what was available or what was out there or what you could choose. Having done different courses that taught me to see things differently and accept things as they land in your lap ...

For some, it was a case of not having the appropriate prerequisites: 'Quite unstructured, I have used three different institutions to get to where I want to be, but I don't think I could have done it any other way due to my high school level'.

As a consequence of these moves, many recognised their journey as circuitous and inefficient. Some admitted that their learning journey could have been much quicker and easier and expressed mixed emotions about their moves. Said one, 'it hasn't been too good—very stop and start, and change and switch over to this path and then switch over to that path', while another recognised 'all those mistakes, and I would change that if I went back'. Another summarised the path as being so far 'only a stepping stone process. It seems to be small, incremental and not very effective at the moment'.

Despite their meandering, the interviewees remained hopeful that their journeys were leading them to a satisfactory outcome: 'Messy, disjointed, however, hopefully it will coalesce into something that is actually useful. Apart from my retail traineeship, it will all have a point ultimately—the only wasted time was the traineeship'. Generally, the interviewees were resigned if not content with their journeys, and identified *benefits* to come from their moves, such as 'one learning has led to the next along the way for me', 'I like to think I have taken something away from every experience and learnt from every experience' and 'developing skills and knowledge'. They were able to recognise that each step along the journey was helping them to realise more clearly what they wanted to gain from their education:

It's taken me a long time for something that could have been a lot quicker. That is probably life. Each time I have enjoyed it and it's been what I have wanted. I suppose there may have been an easier way for me to do it.

Initially hit and miss, but it is getting more targeted and clearer every step of the way basically, and I am getting a better understanding of where I want to be, and I think the education helps significantly.

By the time of the interview, many were clearly recognising that the direction of a learning journey was not always straight, nor even forward. Some considered that it sometimes went 'backwards', one thought it was sometimes 'horizontal' and another that it went up and down. But whatever the direction, the experience of travelling was perceived to be beneficial:

It was a very long pathway but actually a very rewarding pathway. I think the experiences I have picked up through doing things the way I have done, I have grabbed a lot of extra experience along the way. It has actually made for a very broad-based education which I am enjoying overall.

Many of the specific gains mentioned by interviewees related to completion of qualifications, 'which enabled me to gain employment' or 'got me a trade'. Other gains referred more to the benefits they derived from their studies on the journey, such as refreshing skills, 'information ... that helped at the time', 'a lot of knowledge', 'more knowledge in the areas I was interested in' and 'some experience in industry'. Many of the gains were more personal, such as 'better interpersonal skills', 'understanding myself—I have gained more with each move' and growth in self-belief:

The biggest gain right through has been confidence—to keep on going. To begin with, I had a lot of doubts as to my ability to go into higher education. Not intellectually, just being able to cope with a completely different environment. But I have found it to be an enlightening experience in many ways.

An important spin-off was reaffirmation of what they did *not* want to do. Another was the close relationships built with staff: one interviewee highlighted that an important advantage of further study had been the 'closeness and connectedness with our lecturers and our classmates because there were only ten of us ... so we did have that connectedness [and] we have been able to use that in the future'. Another recognised that it had not been 'a totally negative experience—I mean, on a personal level, I have got friends that I made through that course'.

The interviewees recognised that all learning experiences had value. This was neatly summarised in one response: 'I have gained something from everything—everything is always an advantage'. Another spoke of having 'strings to one's bow':

I don't think there is any real disadvantage to learning—strings to your bow—[you] encounter different situations and you are able to deal with them a little better than had you not had those previous experiences.

With respect to *losses* in moving, most responses tended to be qualified both positively and negatively. An example was working full-time and having to come home to study, which 'can be very stressful especially when my boss wants extra work out of me ... [and] not spending time with my hubby', but recognising the advantage is 'not spending as much time in front of TV'.

Most disadvantages in learning moves were expressed in terms of time and money.

I guess there has been [disadvantage] in the time that it takes—it has taken me a long time to get where I am ... The disadvantage is probably the time it has taken—the failed attempts at finding what I want to do and all of that and just having to start again every time—back to first year and start again. Two steps forward, three steps back.

In one case, regret over lost time was underlined when the interviewee, while on work experience, conversed with seasoned workers halfway through her course. Those in the job told her that they had not done her course, did not think it was necessary and claimed many of the topics she was studying were inappropriate. In another case, time was mentioned in the context of the interviewee considering that university was 'such a non-structured system' and that she should have been able to complete her course in far shorter period than four years: 'Most of my course

was 12 hours' contact, then the rest of the time was for study. It almost felt like I could have done it in a shorter amount of time'. In another instance in a VET course, an interviewee recalled studying what she already knew: 'In the VET course, there were days when I felt that I would be better off back at work doing some practical work rather than learning things that I already knew, so ... that was a disadvantage in that it used time and I could have been doing other things'.

Most often the interviewees admitted that this loss of time was largely due to their own circumstances. One acknowledged that her first degree might not have been the best one to have chosen at the time, and that 'it was a lot of money and time I spent on something that didn't really get me to where I might have wanted, although probably I didn't give it a chance either'. Another claimed that 'there were disadvantages with each move, but some of them were related to me personally, not necessarily the actual learning institutions'.

Regarding finance, many acknowledged that there was a loss on 'the old pocket'. This loss was expressed in terms of both study costs and loss of income. One commented, 'I have a HECS debt and have to pay back my mum for quitting TAFE', although she admitted that 'it took [her] six years to finally work out where I wanted to go'. Another rued the financial loss, but was able to take the more long-term perspective:

There is definitely a loss of income any time you take up study. When you have come from full-time work, it feels you always take a backward step ... that old saying, take one step backwards to take two steps forward. I can handle that. This will benefit me in a bigger way one day.

One final disadvantage of moving was perceived career delay compared with friends:

I suppose there is always the trade-off ... do you work or do you study by going back and doing a second degree? A lot of my friends are moving up in careers and I have gone back and done a second stint at tertiary education, so I suppose there is a career versus study loss. I am three years behind a lot of my friends who are in industry.

Summary

Many interviewees had multiple moves, which included both inter- and intrasectoral movement. One-quarter experienced two moves only, the other three-quarters between three and seven moves. Choices for these moves were frequently clear and had often been made for vocational reasons although, in some cases, for interest. Often barriers were encountered, including finance; transport; location of institution; juggling work, family and study; inflexible class schedules; inadequate or inaccurate information, such as on credit transfer or course outcomes; and personal issues, such as lack of confidence or finding academic work difficult.

The term, 'learning pathway' was perceived in many different ways. It was rarely perceived as linear, rather as a series of fragmented or discontinuous stages and as a series of personal choices. Again, many did not consider this term as the most apt description for their own learning history. Instead, they described it in such terms as 'stepping stones', 'zigzags', 'crooked paths', 'hops, skips and jumps', and 'cobblestones'. Reasons included lack of guidance, lack of fit between courses attempted, inexperience and lack of course prerequisites.

Conclusions: Towards a typology of student movement

This project has pulled a thread through the fabric of young people's learning transitions, from the policy initiatives that permit the choices they have, through the statistics which demonstrate how these choices are taken up, to the lived experiences of their personal learning pathways.

Considerable interest in young people's pathways has been demonstrated in the policy documents of ANTA, the Ministerial Council on Education, Employment, Training and Youth Affairs and the Department of Education, Science and Training and has been manifested in a number of successful initiatives to facilitate learning pathways within and between the education sectors and employment. While there have been difficulties associated with a number of efforts to enhance pathways for young people, there has been solid progress over recent years. National statistics reflect that pathways between the VET and higher education sectors are of increasing significance. The number of young people aged less than 30 years in higher education undergraduate courses and with TAFE experience increased considerably between 1990 and 2003, from around 10 000 to 30 000 students. The figure for VET students with higher educational achievement has declined slightly between 1997 and 2003, but has still been close to 30 000 in each year.

To what extent did the participants in this study benefit from a broader range of pathways? Generally, and especially in the first transition from school, the majority of the participants were fairly single-minded about their learning choices and did not consider a broad range of options. This single-mindedness was usually based on vocational interest that led them to attend either VET or higher education. Within VET, various options were taken up by this sample of students, including traineeships, prevocational courses, apprenticeships and certificates. For those going into higher education, the single-mindedness often related primarily to a desire to go to university, and then to pursue an occupational interest. This was also the driver for those who went into TAFE first, as a stepping stone to higher education. Where there was no identified interest, students often floundered and there seemed to be little help available to support them. In other words, choices were not clear for those who did not have a guiding interest.

To what extent did the participants take advantage of seamless pathways when moving between the VET and higher education sectors? The participants in this study had diverse, complex and interesting histories that aptly illustrate the phenomenon of inter- and intrasectoral movement. They had made multiple learning moves, with an average of three each, with some even having made six or seven, sometimes across a broad range of seemingly diverse courses. For these participants, there appears to have been little problem with moving within and between VET and higher education in relation to their willingness to undertake any study which would further their interest, vocational or otherwise. In addition, most of the participants were employed while studying, occasionally with a succession of jobs too numerous to recall accurately, and many were employed full-time. This work was sometimes unrelated to their study, as when students worked for income to support themselves while studying. In effect, they had a high tolerance for complexity and demonstrated a high level of flexibility and adaptability.

The participants' frequent movements within and between VET and higher education suggests that VET is effective as a bridge to higher education, although this was not always recognised by these participants who, in general, acknowledged the employment advantages of a VET

qualification but did not necessarily feel that it encouraged them to pursue a broader range of possibilities, whereas higher education stimulated them to do more with their careers.

There appeared to be some problems of a systemic nature in moving between sectors. Some experienced difficulties with achieving Tertiary Education Rank scores to enable them to get into their course of choice or with negotiating the application process. Several also experienced difficulties in adjusting to the teaching environment at university or TAFE, despite programs designed to help them. Overall, however, pathways seem to have been possible, if not altogether seamless.

In some cases, participants may have been better equipped to negotiate pathways had they been better informed but, in keeping with the generally purposeful nature with which they approached their learning pathways, usually only assistance which was readily available and accessible was actually used.

The major difficulties negotiating pathways appear to have been due to personal, practical issues such as time, finance and family concerns. Accessing resources was difficult for those who were studying in the evening, and time management was difficult for those with children. Costs were also an issue.

Making a decision about what course they would undertake was easy for those who already had an interest in the specific area, because they tended to look at only one option. For others, it was more difficult, either because they didn't have an identified interest, or because they didn't sift and assess the usefulness to themselves of the information they had received. However, more difficulty was experienced in making decisions when selecting subjects within courses, and there was sometimes little information about the employment outcomes from courses, even during the course of the study program.

Most were not aware of career services and did not seek advice, because they believed they already knew what they wanted to do. Arguably, career assistance would have been useful for those who had no defined area of vocational interest, and in sorting, assessing and applying the information to their own circumstances. Also, earlier assistance would have been beneficial in broadening the horizons of those who considered only a few options, if only to confirm the accuracy of their choices.

Generally, educational moves were not facilitated by information or advisers. It is unknown whether career advice would have led to differently shaped pathways or fewer transitions, although participants acknowledged mistakes and the inefficiency in their pathways—that there might have been an easier or quicker way to get to where they were at the time of interview. However, most participants were generally accepting of their learning histories and felt that all their learning experiences had been positive.

Most participants accepted the pathway metaphor but used different adjectives to describe it. Looking back on their pathways, they were usually positive, many saw the moves as part of their personal and career development and generally considered that there were no losses in any learning, although time and costs had been issues. Their goals were usually short-term and many thought they might change. Most had full-time, permanent employment both as a goal and an expectation, as a result of the number of years they had been studying and the high cost of their education. This is somewhat surprising, considering the current climate of contract and portfolio careers. However, advancement within a vocational area seems to have been less important since, despite many moves, many had not advanced far in a particular field. This is consistent with modern definitions of career, where development is seen less as vertical movement within a profession or organisation than as personal unfolding. In fact, many of these participants demonstrated a synthesis of their educational histories to achieve unique career pathways.

Other studies have also found that young people are well adapted to modern career paradigms, in that their choices are informed and directed by themselves; they anticipate occupational rather

than hierarchical progression within their careers and expect discontinuity of employment (Carpenter & Inkson 1999). In addition they have a clear sensitivity to the experience of lifelong learning (Connelly & Halliday 2001).

In summary, while not necessarily seamless, sectoral transitions and pathways appear functional and effective and are utilised by many young people. From the stories of these participants, it seems that the process could be enhanced by targeted, accessible and accurate information and by the provision of more career advice. Notwithstanding systemic factors, however, the nature and personality of the individual is critical in relation to whether these opportunities are taken up and utilised. While participants demonstrated considerable openness to complexity in their learning careers, this was within a framework of vocational interest and a willingness to adapt or shift this focus, depending on their experiences and available opportunities. On the other hand, this may have presented problems through not undertaking the information-gathering which is necessary for decision-making, making decisions too readily and not seeking career assistance. There were also personal, practical issues which interfered with the fluidity of the process for the individual.

This study has investigated transitionary students—that is, cross-sectoral learners—a category purposively selected in order to explore how they perceived their own learning pathways. It has not analysed linear pathway students, often referred to as ‘traditional pathway’ learners. In fact, one may well ask to what extent do these traditional pathways survive? Other studies have demonstrated that the learning careers of young people aged 15 to 19 tend to be ‘erratic’ rather than linear, and that these are rarely the products of rationally determined choice, broadening from narrow horizons to embrace new experiences (Bloomer & Hodgkinson 2000, p.593; Unwin 2003, p.11); that young people’s decision-making is fluid and their ambitions and ideals can quickly change (Spierings 2001); and that their decision-making is ‘pragmatically rational’, depending on opportunity and subjective perceptions (Hodkinson, Sparkes & Hodgkinson 1996). Anderson suggested that people only begin to exercise choice in VET in a more individualistic and consumer-like manner when they enter the 20–24 years age group (Anderson 2003).

Student movement—typology

This study has revealed a diversity of pathways which cannot be called linear or traditional. However, further analysis of these pathways suggests some common patterns of sectoral transition. These are described below, together with an example and a quotation illustrating each example.

Interest chasers

Where they had free choice, most of the participants were motivated by interest, usually in a vocational context, to undertake a particular field of study. This was certainly true for most of the first transitions from school to further education and for the first sectoral move. In the latter case, this generally involved a jump from one field of interest to another, sometimes when the participant realised that they had misjudged their first choice of course and it did not meet their expectations. Some participants with multiple moves demonstrated an ‘interest chaser’ pattern of movement throughout their learning careers. Other descriptors of this pattern of movement might include multi-directional, searching, or yo-yo (bouncing between different fields of interest). Sometimes it involved a return to the original interest area.

Example		
First transition from school	Information technology	VET
First move	Child care	VET
Second move	Science and education	HE
Third move	Theology	HE
Fourth move	Telecommunications	VET
Fifth move	Paramedical training	VET
Sixth move	Ambulance studies	HE

Any education always contributes—I look at my track record and I see how patchy it is, but I also see there is not a single course I have done that hasn't helped me get work, hasn't helped me at a trivia night—hasn't hindered me in any way and I always take up the chance to learn something new and this is the chance to do that and if I pick up some more qualifications along the way that is not a bad thing.

Career developers

Some participants showed consistent interest all the way through their educational careers, even though they may have made several sectoral moves and changes in field of education. Many of the second sectoral moves reflected this pattern—having moved to a preferred area of interest in the first move, the respondents subsequently developed this further in the second move. Sometimes this looked like a domino pattern where an element of one learning experience led to a sectoral move to further develop this as a career. This pattern was more linear, being less of a 'jump' than a 'flow' into another course.

Example		
First transition from school	Carpentry	VET
First move	Management of team leadership	VET
Second move	Natural resource management	VET
Third move	Civil and water engineering	HE

I probably intend to work as an engineer to start with if possible—to get some engineering experience, although a lot of it is a natural progression from the building trade—just at a higher level. I am also looking at an area which I can bring the engineering and the environmental management areas together, so there is a lot of engineering consultancy companies who employ engineers and environmental management staff.

Career mergers

Having explored an interest in other areas, some participants then drew different experiences together to move into a more focused course. This was different from the 'career developer' pattern in that it was usually non-linear.

Example		
First transition from school	Nursing	HE
First move	Languages	VET
Second move	Counselling	HE
Third move	Diabetes education	HE
Fourth move	Immunisation	HE
Fifth move	Workplace training and assessment	VET

My ultimate goal would be to have somewhere where I could use all of the skills that I have learned. From doing the diabetes educator's course—I did that course because I saw a real need to change the structure of how we educate people—and doing the VET assessment and training was learning how you educate people and what processes, and we are failing dismally at the moment, and being able to change that process would be my ultimate goal because then I would have the knowledge of a diabetes educator and also have the counselling skills to be able to talk to people and be able to discuss those issues. I would have the education qualifications to be able to say this is not working—change direction, so that I would be a knowledgeable resource—a professional ... to be respected—to be multi-dimensional. All of these things have been a bit hit and miss along the way, but my eventual goal would be to change the system—I don't know how realistic that goal would be.

Forced learners

Sometimes participants undertook what appeared to be a completely different course for professional development reasons, either through choice or when they were encouraged to do so by their employers. Sometimes this change was due to some practical factor which obliged them to undertake a particular course, such as affordability, location or entry requirements. This might appear like a detour or a side step.

Example		
First transition from school	Psychology	HE
First move	Psychology	HE
Second move	Counselling	VET
Third move	Government practice	VET
Fourth move	Clinical psychology	HE

... it was a work requirement. Certificate IV in Government Practice. I got this job as psychologist permanently ... and I got that job through the graduate program and that course is a requirement for people who have come into government, so I had to do it. I was very unhappy about it and I complained constantly.

... I don't regret doing any of that stuff, even the government practising certificate turned out OK even though I complained about it. I gained a lot in terms of personal satisfaction and professional development.

Two-trackers

Some of the older respondents tried to provide for an alternative career when their current one might not be possible. This two-tracking pattern also occurred when students were trying to improve their chances of earning an income while studying.

Example		
First transition from school	BA	HE
First move	Social work	HE
Second move	Anthropology	HE
Third move	Counselling	HE
Fourth move	Primary health care	HE
Fifth move	Industry training (fashion)	VET

I went into it partly because it was a hobby and something I was interested in pursuing, partly because I wanted to have it up my sleeve, so to speak, as a means of changing career ...

Wanting my independence and the thought of being able to start up my own business and work from home was a beautiful thing, partly that, if the biggest complaint I get through the day is, 'I want that hem line differently', rather than 'I am going to kill you, you bitch'—that seems like a good swap—partly that it is an interest that I would feel quite proud if I could turn it into a business and partly that I can see a gap in the market, and even if I just learn how to do things myself, so I am not having to pay exorbitant amounts of money to someone for something that I don't actually like. If I am able to sew for myself, that is great. If I am able to do it for my friends, that's better. If I can build a business out of it, then I would be a very happy little chook.

It is apparent from these examples that, with multiple sectoral transitions and over time, more than one pattern may apply. It is possible that some patterns may be more evident in learners' early careers and some evolve with maturity. It is certainly true that there were many more 'interest chaser' patterns in early transitions and fewer 'two-tracker' patterns. These were in older participants, and this may well be a pattern that becomes more evident in more mature students and pre-retirees. Further work is required in developing this typology within a lifelong learning framework.

References

- Alba, R, Lewis, D & Dawes, L 1993, *Review of credit transfer arrangements between TAFE and universities in New South Wales*, Evaluations & Investigations Branch, Australian Government Publishing Service, Canberra.
- Albrecht, J 2004, plenary presentation given to 7th Australian Vocational Education and Training Research Association Conference, *The heart of the matter*, Rydges Eagle Hawk Resort, Canberra, 17–19 March.
- Allen Consulting Group 2003, *Overview of transition programs: Policies and programs*, report prepared for the Business Council of Australia, Allen Consulting Group, Melbourne.
- 2004, *Employability skills*, viewed 14 January 2005, <<http://www.allenconsult.com.au:16080/employabilityskills/>>.
- Anderson, D 2003, *Individual learners, choice and lifelong learning*, Monash–Australian Council for Educational Research Centre for the Economics of Education and Training’s 7th National Conference, *Strategic directions for VET*, ACER, Melbourne.
- ANTA (Australian National Training Authority) 1998, *A bridge to the future: Australia’s national strategy for vocational education and training 1998–2003*, ANTA, Brisbane.
- 2002, *National evaluation of school-based New Apprenticeships*, ANTA, Brisbane.
- 2003a, *Directions & resource allocations for 2004*, ANTA, Brisbane.
- 2003b, *Focus on the future of vocational education and training*, ANTA, Brisbane.
- 2003c, *National guidelines for school-based apprenticeships*, ANTA, Brisbane.
- 2003d, *Recognition of qualifications through multiple pathways*, ANTA, Brisbane.
- 2003e, *Shaping our future action plan 2004–2005*, ANTA, Brisbane.
- 2003f, *Shaping our future, national strategy for VET 2004–2010*, ANTA, Brisbane.
- 2004a, *Australian Training Magazine*, December, ANTA, Brisbane.
- 2004b, *Principles and guidelines for improving outcomes for vocational education and training (VET) in schools (2005–2006)*, ANTA, Brisbane.
- 2004c, *VET planning cycle*, viewed 8 February 2005, <<http://www.anta.gov.au/vetPlanning.asp>>.
- 2004d, *Vocational education and training in schools*, viewed 27 September 2004, <<http://www.anta.gov.au/dapVet.asp>>.
- Bainbridge, S, Murray, J, Harrison, T & Ward, T 2003, *Learning for employment: Second report on vocational education and policy training in Europe*, Office for Official Publications of the European Communities, Luxembourg.
- Baldwin, P 1991, *Higher education: Quality and diversity in the 1990s—A policy statement*, Australian Government Publishing Service, Canberra.
- Bateman, A & Knight, B 2003, *Giving credit: A review of RPL and credit transfer in the vocational education and training sector, 1995 to 2000*, NCVET, Adelaide.
- Bloomer, M & Hodkinson, P 2000, ‘Learning careers: Continuity and change in young people’s dispositions to learning’, *British Educational Research Journal*, vol.26, no.5, pp.583–97.
- Burns, B 1997, ‘Articulation and credit transfer from TAFE to university: Some observations on the match between rationales and practices’, Department of Accountancy working papers, no.35, Royal Melbourne Institute of Technology, Melbourne.
- Business Council of Australia 2004, *The VET system: Key issues for large enterprises*, BCA, Melbourne.
- Cameron, H, Kennedy, R & O’Brien, B 2000, ‘TAFE to university—pathway or puzzle?’, in *Learning together, working together: Building communities in the 21st century*, proceedings of the 8th Annual International Conference on Post-Compulsory Education and Training, vol.1, eds F Beven, C Kanes & R Roebuck, Australian Academic Press, Brisbane, pp.32–40.
- Carmichael, L (chair) 1992, *The Australian Vocational Certificate Training System*, National Board of Employment, Education and Training, Canberra.
- Carpenter, H & Inkson, K 1999, ‘New career paradigms and personal aspirations: A study of seventh formers’, *Australian Journal of Career Development*, vol.8, no.3.
- Carter, J 2001, ‘Understanding youth pathways: Paths through the maze; route maps for education, communities and health services’, proceedings of the 6th national research conference, *Understanding youth pathways*, Australian Council for Educational Research, Melbourne, 15–16 October.

- Cohen, R, Lewis, D Stone, J & Wood, G 1997, *University admissions for NSW TAFE graduates: Procedures and outcomes for NSW and ACT universities*, Evaluations & Investigations Branch, DEETYA, Canberra.
- Connelly, G & Halliday, J 2001, 'Reasons for choosing a further education: The views of 700 new entrants', *Journal of Vocational Education and Training*, vol.53, no.1, pp.181–92.
- Conroy, P, Pearce, A & Murphy, H, 2000, 'Smoother pathways from TAFE to higher education', paper presented to Australian Society for Educational Technology (ASET) and Higher Education Research and Development Society of Australasia (HERDSA) Conference, Queensland.
- Cornford, I 2004, 'Can we do it better next time? A critical review of the effectiveness of Australian VET policies of the 1990s and the need for policy change', proceedings of the 12th annual International Conference on Post-compulsory Education and Training: *Doing, thinking, activity, learning*, Griffith University, Gold Coast, vol.1, pp.87–94.
- Dawe, S 2004, *Moving on from enabling courses: Why do some students remain in enabling courses?* NCVET, Adelaide.
- Department of Education, Employment and Training (Victoria) 2000, *Post-compulsory education and training pathways in Victoria* (information kit), Department of Education, Employment and Training, Melbourne.
- Department of Education, Science and Training 2002, *Varieties of learning: The interface between higher education and vocational education and training*, viewed 14 December 2004, <[http://www.dest.gov.au/crossroads/pubs/varieties of learning](http://www.dest.gov.au/crossroads/pubs/varieties%20of%20learning)>.
- Dickson, J 2000, 'TAFE child care graduates begin a university teaching degree', Conference of the Australian Association for Research in Education, 4–7 December, Melbourne, viewed 20 May 2003, <<http://www.aare.edu.au/00pap/dic00164.htm>>.
- Du Bois-Raymond, M & Blasco, A 2003, 'Yo-yo transitions and misleading trajectories: Towards integrated transition policies for young adults in Europe', in A Blasco, W McNeish & A Walther (eds) *Young people and contradictions of inclusion: Towards integrated transition policies in Europe*, Policy Press, Bristol, pp.19–41.
- Dusseldorp Skills Forum 2004, *How young people are faring: Key indicators 2004, an update about the learning and work situation of young Australians*, Dusseldorp Skills Forum, Sydney.
- Eltis, K 2002, 'Global trends, implications for vocational training and lifelong learning: Response of the university sector', in *Vocational training and lifelong learning in Australia and Germany*, eds G Burke & J Reuling, NCVET, Adelaide, pp.77–94.
- Figgis, J, Alderson, A, Butorac, A, Frost, M, Keating, J, Lamb, S, Malley, J, Standen, A & Zubrick, A 2004, *The landscape of support for youth in transition*, Department of Education, Science and Training, Canberra.
- Finn, B (chair) 1991, *Young people's participation in post-compulsory education and training*, Australian Government Publishing Service, Canberra.
- Fullarton, S 2001, *VET in schools: Participation and pathways: Longitudinal surveys of Australian youth*, research report no.21, Australian Council for Educational Research, Melbourne.
- Golding, B 1995, 'Tertiary transfer: The unacknowledged pathway from university to TAFE', pathways series, Issues paper no.2, Office of Training and Further Education, Melbourne.
- 1999a, 'Two-way movement and recognition between university and TAFE in Victoria between 1990 and 1996', doctoral thesis, Centre for the Study of Higher Education, University of Melbourne, Melbourne.
- 1999b, 'When the backwash swamps the wave: A case study of the relationship between research, policy and practice concerning two-way inter-sectoral movement in Australia', in *Impact of R&D on VET decision making*, ed. C Selby Smith, NCVET, Adelaide.
- 2001, 'Great divides in learning: Youth learning pathways in rural and remote Australian towns', Proceedings of the 6th national research conference, *Understanding youth pathways*, Australian Council for Educational Research, Melbourne, 15–16 October.
- Golding, B & Eedle, L 1993, *TAFE pathways project: Final report*, Ballarat University College, Ballarat.
- Golding, B, Marginson, S & Pascoe, R 1996, *Changing context, moving skills: Generic skills in the context of credit transfer and the recognition of prior learning*, Australian Government Publishing Service, Canberra.
- Golding, B & Vallenge, K 2000, 'The university–VET transition', paper to 3rd National Conference of Australian Vocational Education and Training Research Association, *Future research, research futures*, Canberra Institute of Technology, Canberra, 23–24 March.
- Haas, A 1999, *Trends in articulation arrangements for technical and vocational education in the SE Asian region*, UNESCO/UNEVOC Centre, RMIT University, Melbourne.
- Harris, R, Sumner, R & Rainey, L 2005, *Student traffic: Two-way movement between vocational education and training and higher education*, NCVET, Adelaide.
- Hodkinson, P, Sparkes, A & Hodkinson, H 1996, *Triumphs and tears: Young people, markets and the transition from school to work*, David Fulton Publishers, London.
- House of Representatives Standing Committee on Education and Training 2004, *Learning to work: Report on the inquiry into vocational education in schools*, House of Representatives Publishing Unit, Canberra.
- International Labour Organisation 2002, *Learning and training for work in the knowledge society*, report IV (1) of International Labour Organisation Conference, 91st session, ILO, Geneva.

- Karmel, T & Nguyen, N 2003, 'Australia's tertiary education sector', paper to 7th National Conference of the Centre for the Economics of Education and Training, *Strategic directions for VET*, Ascot House, Melbourne, 15 September.
- Ling, P & Devlin, M 1993, 'Transfer shock', *EQARD Occasional Papers*, vol.94, no.2, Royal Melbourne Institute of Technology, Melbourne.
- Mayer, E (chair) 1992, *Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment related key competencies for post-compulsory education and training*, Australian Education Council and Ministers of Vocational Education, Employment and Training, Canberra.
- McDonald, R, Corbiere, K, Doyle, L, Field, C, Johnson, L, Johnston, P, Kerr, E & Roberts, A 2000, *The transition from initial education to working life: A status report on Australia's progress*, ANTA, Brisbane.
- McKenzie, P 2000, 'Youth pathways to promote lifelong learning', paper presented to the Centre for the Economics of Education and Training conference, *Mobilising resources for lifelong learning*, 30 October, Melbourne.
- 2001, 'Background to the conference', proceedings of the 6th national research conference, *Understanding youth pathways*, Australian Council for Educational Research, Melbourne, 15–16 October.
- Millican, R 1995, *University-TAFE articulation in Queensland*, research report no.8, Tertiary Entrance Procedure Authority, Brisbane.
- Ministerial Council on Education, Employment, Training and Youth Affairs 1999, *The Adelaide declaration on national goals for schooling in the twenty-first century*, MCEETYA, Canberra, viewed 17 August 2004, <<http://www.mceetya.edu.au/nationalgoals/natgoals.htm>>.
- 2000a, *New framework for vocational education in schools: A comprehensive guide about pathways for young Australians in transition—Policy directions*, prepared by the Curriculum Corporation, viewed 30 October, 2004, <<http://www.mceetya.edu.au/pdf/policy.pdf>>.
- 2000b, *New pathways for learning: Report of the MCEETYA taskforce on vocational education and training (VET) in schools*, MCEETYA, Canberra.
- 2002, *Action plan to implement the ministerial declaration 'Stepping forward—improving pathways for all young people'*, viewed 18 August 2004, <http://www.mceetya.edu.au/stepping_forward.htm>.
- Moodie, G 2003, 'VET-higher education transfers and the structure of tertiary education', paper to 6th Australian Vocational Education and Training Research Association Conference, *The changing face of VET: Reflection, regulation and re-engineering*, Australian Technology Centre, Sydney.
- 2004, 'Reverse transfer in Australia', *International Journal of Training Research*, vol.2, no.2, pp.24–48.
- Muller, W & Gangi, M 2003, 'The transition from school to work: A European perspective', in *Transitions from education to work in Europe: The integration of youth into EU labour markets*, eds W Muller and M Gangi, Oxford University Press, New York.
- National Association of Schoolmasters Union of Women Teachers 2004, *14–19 curriculum and qualifications reform*, NASUWT, Birmingham.
- OECD (Organisation for Economic Co-operation and Development) 1991, *Alternative to universities*, OECD, Paris.
- 1996, *Lifelong learning for all*, report of the meeting of the Education Committee at Ministerial Level, 16–17 January, OECD, Paris.
- 2000, *From initial education to working life: Making transitions work*, OECD, Paris.
- Parkinson, K, Mitchell, R & McBeath, C 1986, *Cross-sectoral transfer from TAFE to higher education*, TAFE National Centre for Research and Development, Adelaide.
- Phan, O & Ball, K 2001, *Outcomes from enabling courses*, NCVER, Adelaide.
- Pitt, H 2001, 'Between the sectors: New issues when examining student movement', paper to 9th International Conference on Post-compulsory Education and Training, Gold Coast, Queensland.
- Prime Minister's Youth Pathways Action Plan Taskforce 2001, *Report from the Prime Minister's Youth Pathways Action Plan Taskforce: Footprints to the future*, viewed 6 April 2004, <<http://www.youthpathways.gov.au>>.
- Rainey, L, Simons, M, Pudney, V & Hughes, E (in press), *Choosing VET: Evaluation of career development services in Australia*, NCVER, Adelaide.
- Ramsay, E, Tranter, D, Kain, M & Sumner, R 1997, *Cross-sectoral linkages: A case study*, Evaluations and Investigations Project, Department of Education, Employment and Youth Affairs, Canberra.
- Rumsey, D 1997, 'Reporting assessment outcomes within competency-based training and assessment programs under New Apprenticeships' in *Competency based training in Victoria*, ed. S Foster, Office of Training and Further Education, Melbourne.
- Schofield, K, McDonald, R & Leary, C 2004, *High level review of training packages: Working paper 6: Pathways*, ANTA, Brisbane.
- Smith, E & Wilson, L 2003, *Learning and training in school-based new apprenticeships*, NCVER, Adelaide.
- Spierings, J 2001, 'Regional and local government initiatives to support youth pathways: Lessons from innovative communities', proceedings of the *Understanding youth pathways* research conference, Australian Council for Educational Research, Melbourne.
- Stern, D 1999, 'Improving pathways in the United States from high school to college and career', in *Preparing youth for the 21st century: The transition from education to the labour market*, OECD, Paris, pp.155–214.

- Sweet, R 2001, 'Meandering, diversions and steadfast purpose: Australian youth pathways in a comparative perspective', proceedings of the 6th national research conference *Understanding youth pathways*, Australian Council for Educational Research, Melbourne, 15–16 October.
- Teese, R & Polesel, J 1999, 'Tracking students across institutional and sector divides: The potential of TAFE and higher education statistical collections', paper presented at *Looking to the future*, Post-compulsory Education and Training Conference, Lifelong Learning Network, University of Canberra, Canberra, 27 August.
- Teese, R & Watson, L 2001, *Mapping and tracking: Data collections form monitoring post-compulsory education and training*, NCVET, Adelaide.
- Ticknell, G & Smyrniotis, K 2004, 'TAFE-to-university transition: The effectiveness of an accounting degree articulation program', *International Journal of Training Research*, vol.2, no.2, pp.49–74.
- Trembath, R, Robinson, C & Cropley, M 1996, *Cross-sectoral experience: An analysis of credit transfer in Victoria's dual sector institutions*, Office of Training and Further Education, Melbourne.
- UNESCO (United Nations Educational, Scientific and Cultural Organisation) 1996, *Learning: The treasure within*, report to UNESCO of the International Commission on Education for the 21st Century, UNESCO, Paris.
- UNESCO & International Labour Organisation 1964, *Technical and vocational education and training*, UNESCO and ILO, Paris & Geneva.
- 2002, *Technical and vocational education and training for the twenty-first century*, UNESCO and ILO, Paris & Geneva.
- Unwin, L 2003, 'Growing beans with Thoreau: The importance of skills', *Journal of Vocational Education and Training's fifth international conference*, University of Greenwich, UK
- Victorian Employers' Chamber of Commerce and Industry (VECCI), website, viewed 25 January 2005, <www.vecci.org.au/professional+services/veet/vet+forum/index1.asp>.
- Victorian Qualifications Authority (VQA), 2005, 'The Credit Matrix in brief', viewed 4 January 2005, <www.vqa.vic.gov.au/vqa/credit_matrix/whatis.asp>.
- Walther, A & McNeish W 2003, 'Introduction: Young people and contradictions of inclusion', in *Young people and contradictions of inclusion: Towards integrated transition policies in Europe*, eds A Blasco, W McNeish and A Walther, Policy Press, Bristol.
- Walton, S & Mallon, M 2004, 'Redefining the boundaries? Making sense of career in contemporary New Zealand', *Asia Pacific Journal of Human Resources*, vol. 42, no.1, pp.75–95.
- Werner, M 1998, *Issues regarding higher education graduates in vocational education and training*, NCVET, Adelaide.
- Wheelahan, L 2001, 'Research, policy and practice: How do they fit together? A case study of pathways and articulation at Victoria University of Technology', paper presented to 4th Australian Vocational Education and Training Research Association Conference, *Research to reality: Putting research to work*, Adelaide, March, viewed 16 March 2005, <http://www.avetra.org.au/abstracts_and_papers_2001/Wheelahan_full.pdf>.
- Woods, D 2005, *Young people and vocational and training options: At a glance*, NCVET, Adelaide.

Support document details

Additional information relating to this research is available in *Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education—Support document*. It can be accessed from NCVET's website
<<http://www.ncver.edu.au/publications/1722.html>>.

- ✧ Appendix A: Literature review
- ✧ Appendix B: Interview schedule
- ✧ Appendix C: VET and higher education profiles for young students with experience/achievement in the other sector
- ✧ Appendix D: References



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