

Pedagogical practices across the Tertiary sector: summarising the literature on the pedagogical support for students moving from VET into Universities

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Abstract

This paper summaries issues and identifies gaps that have arisen from the initial review of literature associated with the ‘*Transition from VET to University: What are the pedagogical issues?*’ research project. This is an on-going research project funded by NCVER. This study explores the pedagogical practices encountered by vocational education and training (VET) graduates making the transition into university programs. The research is looking to provide an evidence base for the development of strategies that will enhance the student’s experience of cross-sectoral transition. The aims of this project are in line with the recommendations of the Bradley Review and subsequent moves by Australian Universities to attract VET graduates into undergraduate university programs. Amongst the gaps identified are, the need for direct findings devised from speaking with VET students going into Higher education; evaluating the adaptability of VET students transitioning to the pedagogical practices utilized in higher education; and exploring whether the use of authentic learning tasks and assessment might be appropriate within first year higher education programs.

Introduction

This paper represents the summary of issues and identification of gaps that have arisen through the review of literature associated with an NCVER funded research project: ‘*Transition from VET to University: What are the pedagogical issues?*’ The project explores the pedagogical practices encountered by vocational education and training (VET) graduates making the transition to university, with a view to enhancing this transition experience. The aims of this project are in line with the recommendations of the Bradley Review (DEEWR 2008a) and subsequent moves by Australian Universities to attract VET graduates into their undergraduate programs. This summary and overview of gaps identified in our literature review is being used to inform the approach and detail of the empirical research.

The current context: the tertiary sector

The Bradley Review was initiated in March 2008 to “*examine and report . . . on the future direction of the Higher Education (HE) sector, its fitness for purpose in meeting the needs of the Australian community and economy and the options for reform*” (DEEWR 2008b). One of the issues that prompted the review, and a central one for the review panel, was the recognition that Australia is falling behind other OECD countries in the quantity and quality of its university graduates with serious implications for our ability to compete in a rapidly moving global economy (DEEWR 2008a: xi). Three of the solutions identified by the Bradley Review panel have a direct bearing on student transitions from VET to university. These are:

1. *The number of young Australians with a higher education qualification must be markedly increased.* The attainment target proposed by Bradley, and since accepted by state, Territory and Commonwealth governments, is that by 2025, 40 per cent of 25 to 34 year olds will have attained at least a bachelor-level qualification (DEEWR 2009:12). The figure at the time of the Bradley Review was 29 per cent. Current government targets also now include the halving of the percentage of adults without a Certificate III or above from 57% to 27% by 2020, and the doubling of the number of Diploma and Advanced Diploma completions in the same time;
2. *Groups currently under-represented in the system must significantly contribute to this growth.* The target proposed by Bradley, and since accepted by state, Territory and Commonwealth governments, is that by 2020, 20 per cent of enrolments in HE should be students from low socio-economic backgrounds. The current figure is, as it has been for two decades, around 15 per cent (DEEWR 2008b:10; DEEWR 2009: 12).
3. *A more flexible tertiary education and training system is critical* if volatility in demand for skills is to be accommodated and constantly changing skill needs met (DEEWR 2008a: 181).

This current research project on the pedagogical practices associated with articulation and transition from VET to university fits within the implementation of recommendations arising from the Bradley Review.

Prior to the Bradley Review, the tertiary sector was generally inclusive of all of VET and HE. But since the Bradley Review, it has come to be restricted by key stakeholders such as TAFE Directors Australia, Universities Australia, and even some dual sector universities, to the two highest levels in VET: Diploma level (AQF Level 5) and Advanced Diploma (AQF Level 6). Undergraduate Bachelor's Degree (AQF level 7) and all degrees above in the HE system are considered part of the tertiary sector. Despite this pooling of qualifications from the two systems, significant differences in purpose between the VET and HE systems remain.

In exploring these differences it's important to consider what the terms VET and HE mean. The two sectors are often said to be "*equal but different*" (Rushbrook, 1997:109). VET in Australia is a distinct form of tertiary education. Its purpose is to develop knowledge and skills for particular occupations (Moodie, 2008; Sutcliffe 2008). Consequently, it has distinct goals, stakeholders and a pedagogical approach with a number of special characteristics, including:

- Competency-based Training Packages (Smith and Blake, 2009) focused on workplace-specific outcomes and standards (Wheelahan, 2008). Industry is heavily involved in the development of training packages that formally specify national standards and qualifications for performing effectively in the workplace (Down 2003; ANTA, 2004; Down 2006). The industry partners and representatives identify desired outcomes but they do not prescribe the learning, teaching and assessment processes to achieve those outcomes (Down 2003 & 2007);
- an emphasis on 'know how' (Gabb and Glaisher, 2006) and tacit knowledge (TAFE and Community Education, Policy and Support Unit, 2004);
- a history of adaptation and flexibility (Rushbrook, 1997);
- a pedagogy which is learner-focused, collaborative and constructivist (Brennan-Kemmis et al, 2009).

Tensions exist over its multiple roles and between its multiple stakeholders (Moodie, 2008; Sutcliffe 2008; Brennan-Kemmis et al, 2009). Indeed, a common theme raised in the literature is the use of VET by multiple stakeholders to meet various educational, social and economic goals (Goozee, 2001; Moodie, 2008; Sutcliffe 2008). This has resulted in difficulties for the VET sector in the form of challenges to its remit and identity (Rushbrook 1997). Unlike HE, which is largely a competitive entry system, entry to TAFE institutes, Australia's public VET providers, is open access (Young, 2007). It is designed to provide opportunities for a wide array of students.

Whilst VET is a national system, with a qualifications framework, competency standards and Training Packages, there is, nonetheless, significant diversity across VET in different states (Wheelahan and Carter, 2001). The VET system allows for both standardised qualifications and training for specific employer needs (Knight and Mlotkowski, 2009).

The primary role of Higher Education is described variously in the literature in terms which may seem idealized to some:

1. to pursue truth and inform political decision-making to achieve social ends (Brubacher, 1982);
2. to pursue knowledge and further the pursuit of knowledge through development of future graduates (Hamlyn, 1996);
3. to ask questions of our place in the world; to develop and critique frameworks to understand our place in the world; and to equip us with skills and approaches to deal with the super-complexity of the world (Barnett, 2004).

These positions outline a broad and ambitious role for HE as a general mechanism for economic and social change as well as its specific functions of research and teaching to further understanding and the development of knowledge. Government policies, professional bodies and employers place pressure on HE institutions to demonstrate - through application of graduate attributes for example - that their graduates have generic 'employability' skills as well as disciplinary knowledge. Increasingly vocationally-relevant courses and programs are being developed within HE (Doughney, 2000; Billett 2009 & 2010), with links to industry and opportunities for students to learn more specific skills and capabilities. Growth in industry participation in HE has left the aims of universities and HE unclear, and as Doughney (2000) suggests, this requires examination and clarification, including a review of links with other institutions, including VET and schools. Our concern, however, is specifically about the pedagogical experience of the students who move from VET to university. In the next section we examine the literature on pedagogy, bearing in mind the blurred distinctions between VET and HE and how students' educational experiences in them are impacted.

Pedagogical practices across the tertiary sector

'Pedagogy' is a complex, shifting concept and difficult to define, particularly in relation to its scope (Watkins and Mortimer, 1999). Broadly defined as the study of teaching and learning, Alexander (2008) describes pedagogy as the big picture of teaching. Brennan-Kemmis et al (2009: 6) define pedagogy as "*as a core of effective and traditional practices of teaching and training that have worked over time*" and as assumptions embedded in practice that influence the design and provision of teaching and training. Watkins and Mortimer (1999) review research on pedagogy, identifying 4 phases of perspectives. Pedagogy as a focus on: 1) the teacher; 2) contexts of teaching; 3) teaching and learning; and currently, 4) the complex, non-

linear relationships between multiple elements, including context, content, the teacher and the learner. This research study is framed up using this fourth conceptualisation.

In broad terms, pedagogy associated with VET is considered to be more practice and job orientated and aligned with a competency based approach to training, while pedagogy in HE is considered to be knowledge orientated aimed at developing a broad and deep level of understanding. However, these are arguably stereotypes or caricatures; as both VET and HE are more complex and multifaceted, with a range of objectives and features that are both overlapping and distinctive

Pedagogies in VET

It is important to note that there is no one distinct pedagogy for the whole VET sector. However, typical pedagogical practices can be identified:

- The pedagogical practices within VET below the Certificate IV level are essentially practical. They are grounded in an industry practice for which they are intended and they are competency based. The nature of the student cohort also demands a practical orientation. Students undertake VET programs in order to become a worker in a particular occupation and they usually make this choice because they have a preference for the “hands-on” occupations. Many, but not all, VET students may not have flourished in a school learning environment which was essentially academic and removed from concrete experience (Down 2007; Smith and Blake 2009).

This orientation follows from the two forms of meaning identified by Ryle (1949): knowing “how” and knowing “that”. Dewey (1936, cited in Stevenson, 2003, p.8) claimed that ‘the most deeply ingrained knowledge ... meaning is the capacity to do’. Ryle (1949) argues that we learn *how* by practice. Similarly, by activity and practice, we learn to be.

- VET pedagogy aspires to be student-centred. This is partly historical and partly attributable to the infrastructure of VET (Harris, Guthrie, Hobart and Lundberg 1995; Smith and Keating 2003). Thus the rhetoric of VET is very much about meeting student and industry needs and this, in an environment of diversity, provides teachers/trainers with the recognition of the importance of flexibility and innovation to ensure that students’ needs are met. This is supported by evidence of high rates of student approval within VET programs (NCVER Student Outcome Surveys 2009).
- VET pedagogy is influenced by theories and practices associated with adult learning. As the learning in VET is aimed at the learning of job roles for employment it is considered to be about the training and education of adult learners. Accordingly, teaching and learning strategies used in VET are devised from pedagogical practices considered appropriate for adults (Anderson, Brown and Rushbrook 2004; Tovey and Lawlor 2008).
- VET pedagogy is multi-contextual. VET programs are provided in a range of contexts and forms. They occur in school settings as VET in schools, they occur in TAFE colleges and private Registered Training Organisations (RTOs), through flexible arrangements and blended learning, the Adult and Continuing Education (ACE) sector, universities, and on-the-job in workplaces (Tovey and Lawlor 2008). Each contextual setting provides and exerts its own influence on the pedagogical practices.
- VET pedagogy continues to develop. Figgis (2009) identified six trends in the development of innovative VET pedagogical practice. These are the use of authentic

learning tasks, the encouragement of peer learning, the application of e-learning, utilisation of workplace settings, personalising learning experiences and programs, and devolving the support and responsibility for teaching and learning so that it was closer to the influence of the practitioner. Clearly each of these could be unpacked further in greater detail, but in passing it is significant to note that the tendency towards being practical and student-centred have combined with the use of authentic learning tasks to give rise to the increasing use of authentic assessment. Interestingly the study by Figgis also found that the teachers most likely to be looking at instigating on-going improvement and change in their own work tended to be reflective; respectful of their learners; networked in with local enterprises and with other practitioners.

Pedagogies in Higher Education (HE)

Barnett (1997) critiques the idea that universities are for critical thinking alone and instead extends HE's role, arguing that universities are for developing 'critical being'. This he describes as being about students continuing "*to reflect critically on knowledge but also developing their powers of critical self reflection and critical action*", (Brockbank and McGill 1999: 50). With this fostering of criticality come expectations about autonomy and self-direction. In turn this gives rise to a form of student-centredness that interestingly is somewhat different to that which occurs within the VET sector.

Entwhistle (2009) argues that it has now become generally accepted that each subject area or discipline has its own 'inner logic'. This logic is based on a structuring of knowledge and key ideas and concepts. Pedagogy in a specific discipline is guided by this inner logic. Becher and Trowler (2001) suggest that different disciplinary knowledge can be clustered or arranged according to the classification of what constitutes academic knowledge in a discipline. Meyer and Land (2005) have argued that each discipline or area of study has a number of threshold concepts. These are the key ideas, concepts or processes in a discipline that must be understood by learners in those fields. They argue that students need to grasp these threshold concepts so that they can enter and study in that field. The notion of the inner logic of a subject (Entwhistle, Nisbet and Bromage 2006) is related to the notion of signature pedagogies of the professions that was developed by Shulman (2005). Teaching and learning within a discipline or profession usually reflects the key practices of that discipline or profession.

Learning within HE is based on a diversity of theories. Differentiation between surface and deep learning and the advocacy for deep learning is very common (Marton and Saljo 1976). Similarly the teaching in HE covers a range of diverse practices (Fry et al 2009; Biggs and Tang 2007). At one end of the continuum lectures still get 'delivered' to huge classes of up to 300 students on a regular basis. While at the other end of the continuum are approaches that utilise discovery methods such as problem-based and project-based learning. But even each of these contrasting arrangements harbors a range of approaches. Methods of teaching and learning using more flexible approaches are also common as are online and web-based approaches to teaching and learning.

Regardless of the discipline studies, most universities now acknowledge that many learners experience difficulties in making the jump to the kinds of autonomy, self direction and expectations about disciplinary specific knowledge in higher education and have put effort into making these more explicit to students, particularly in the early and initial sections of the learning programs. Adjustment to the expectations placed on learners in HE is not always

straightforward and accordingly, there is a significant literature examining this transition to university which has evolved and is broadly referred to as the ‘first year experience’.

The first year university experience

Key features

Many, if not most, first year HE students find adjusting to the new learning and teaching environment of university to be a significant challenge. It is argued that the first year experience for new entrants has a significant impact upon whether the student stays on (Wilcox et al, 2005; Krause et al, 2005) and their subsequent academic success or failure (Peat et al, 2001). Young (2007) argues that in HE, students are expected to develop as self-directed researchers, able to independently carry out research and critically evaluate a range of material as well as organising themselves, directing and managing their own learning. Lack of awareness of the standards they are expected to perform at can pose a major challenge to students’ ability to act autonomously. Expectations of students are often implicit rather than explicit (Pearce et al, 2000): standards, skills and disciplinary ‘rules’ such as referencing styles often remain hidden from students, embedded in tacit disciplinary norms. Without explicit introduction to new methods of learning for example, expectations for students to be self-directed, students may become frustrated and disengaged (Brookfield, 1986). Research by Krause (2001) identified student frustration with a lack of clarity about the audience for their written work and the ‘mystery’ around the grading system.

An important feature of the first year experience is the integration into, and sense of belonging to the university community (Kift, 2009; Hillman, 2005). This is an integrated academic and social challenge (Krause et al, 2005). The transition to university can be a major step for all students, involving the development of new social networks, increased independence and even the development of a new identity, Wilcox et al; (2005: 712) call this “*finding your place*”. Finding, creating and sustaining new networks can be a challenge, especially for students moving into new social or geographical environments. Studies into students’ reasons for discontinuation/deferment of their degrees have found that lack of social support can play a role (Wilcox et al, 2005).

External endorsement and feedback from lecturers/tutors played a significant role in students’ success by nurturing their sense of themselves, building their confidence and reducing performance anxieties (Searle et al, 2005; Abbott-Chapman, 2006). An individual’s self-efficacy can be enhanced by external encouragement and the provision of structured and supported opportunities to face challenges and achieve (Bandura, 1994). This is a role that lecturers and teachers can provide. Students want more interactions with tutors/lecturers, especially at the early stages of their new HE experience (Krause, 2001). The lack of contact with lecturers is reported to be a “*distressing*” aspect of transition to HE for some articulating students (Pearce et al, 2000).

Peat et al (2001) describe peer networks as a ‘buffer’ against transition challenges: arguably not only do they assist in social integration but are also an important means for students to develop skills to direct their own learning. Peer learning groups can be a source of support, information exchange, new ideas and access to resources (Brookfield, 1986). Disciplinary-based groups are an integral aspect of becoming part of a community of (academic) practice (Brown and Duguid, 1991).

The first year also involves acculturation into a particular disciplinary way of thinking and understanding (Krause et al, 2005). The difficulties students face may include challenges to

their established ways of thinking and sense of identity. Becher (1989), drawing on a variety of literature, identifies the essence of disciplines to be both substantive and social. Members of a discipline are bound together by interacting knowledge domains, attitudes, behaviors, activities and cognitive styles (p20).

First year experience for students transitioning from VET

In addition to the demands which first year university study presents to many students, even those who prepared at secondary school through an academic stream for university entry, transitioning from VET to university may face special challenges. While both VET and HE pedagogies encompass the principle of self-direction, in VET, this involves an andragogical orientation (Knowles, 1970) which encourages learning opportunities to be built around the needs of the individual; the direct application of learning to workplace issues; and the need for self-direction through flexible and distance-learning. Thus, the HE understanding of self-direction as an individual responsibility may pose a particular problem for articulating students.

The VET competency-based curriculum sets out clear standards and expectations. For students transitioning to university, provision of clear, explicit pedagogy, standards and expectations is significant in addressing some of the transition problems identified by students. Research (Milne et al, 2006) found that students articulating from VET to HE studied in groups and used peers to mitigate the impacts of transition.

Another underpinning factor – and of particular importance to articulating students - is that of the different types of knowledge emphasised in different educational environments. Gabb and Glaisher (2006) suggest that VET emphasises procedural (practical) knowledge whilst HE emphasises declarative (theoretical) knowledge; these are complementary but essentially different ‘forms’ of knowledge. The latter consists of information, facts, concepts and developing an understanding of the inter-connectedness of these is the basis for deep knowledge while procedural knowledge consists of skilled action, techniques and ability (Billett, 1996).

Characteristics of learning outcomes for VET qualifications (Diploma and Advanced Diploma) emphasise the application of knowledge and skills across different contexts and the use of judgement and self-direction. The approach is work-based in that it focuses on the development of skills and knowledge directly applicable to the world of work and that for many VET students; work is a site of learning through placements, apprenticeships and structured workplace learning (Billett 2001; Chappell, 2002). The balance between breadth and depth of activity and practice depends on particular courses studied (AQF, 2007). Learning outcomes for bachelor degrees emphasise: the acquisition of a body of knowledge; disciplinary concepts; the development of academic skills, including research; and depth of understanding.

With regard to the learning pathway, articulation arrangements from VET to university can variously encompass credit transfer agreements, recognition of prior learning, dual-sector institutional arrangements, shared campuses and resources and joint awards, but to date consistency in their implementation is problematic. Wheelahan (2009) has been critical of how these arrangements work for VET students of low SES. Likewise, Christie cites an example from her research of the range in the institutional recognition of qualifications completed in VET for credit into university based courses. Christie (2010) used the example of the VET Diploma in Children’s Services to demonstrate the variation in recognition for credit into a Bachelor of Early Childhood Education that exists between four different universities. At ‘University A’, a student coming in with this VET Diploma receives 80

credit points towards a total of 240 that are needed for this Bachelors degree. This is credit for one third of the degree program. At 'University B', a student receives 48 credit points towards the 192 needed for the degree. This is credit for one quarter of the degree program. At 'University C' the student articulating with the VET Diploma receives credit for 9 credit points out of a 90 required for the degree. This represents one tenth of the degree program. At 'University D' a student with the Diploma and 12 months work experience gains direct entry into the third year of the degree. This is equivalent to receiving credit for two thirds of the degree program. These articulation arrangements represent credit for the same VET Diploma qualification into degree programs which have the same title and which should by all accounts be considered comparable.

There are a variety of different structures and policies to assist transition (see Gabb and Glaisher, 2006 and Cram and Watson, 2008 for detailed overview), which vary in their degree of success and associated pedagogical challenges and limitations. Cram and Watson (2008) found that highly articulated pathways, characterised by joint planning of curriculum; joint teaching activities; and joint student projects resulted in most effective transition. Whilst formal transition arrangements imply a straightforward, linear path for students from VET to university, the reality as experienced and understood by learners themselves may be very different. Research conducted by Harris et al (2006) found that in contrast to the claim of seamless linearity many learners actually perceived their educational experiences to be like zigzags, lurches and stepping stones. Barriers to seamless transition included lack of information or inaccurate information and complex personal circumstances.

When considering support for transitioning students it is essential to not lose sight of the fact that challenges associated with participating in HE can be welcomed by students (McInnis and James, 1995) and form an important part of their development. Alongside institutional responsibilities, students have responsibility for their own transition (James et al, 2010) and, they are an active participant in creating their experiences (McInnis and James, 1995).

Identifying some gaps in the evidence base

With some exceptions the literature on transition into HE is derived from studies on either the transition of secondary students into HE or the general experiences of first year students, without identification of their educational background. The findings from these studies stand as indicators of issues but require investigation to test, and if appropriate, to confirm whether they apply equally for students transitioning from VET to HE. Specific to VET is the experience of the competency-based curriculum and some commentators suggest learning through a competency based approach results in gaps in student understanding and knowledge (see Wheelahan, 2008). This finding will need to be explored further and may be important where credit transfer occurs across the two systems.

A key gap in this literature is the voice of the students. Many of the gaps and issues identified could be clarified if we knew, for example, more about transitioning students':

- actual experience of learning in VET and HE;
- motivation, confidence, expectations and readiness for study in HE;
- their use of supports such as peer and/or disciplinary groups;
- perceptions of access to lecturers;
- perceptions of the clarity of standards and course expectations;
- perception of special issues for older learners.

There also appears to be a particular need to explore the evidence for different forms of 'self-direction' arising between VET and HE and whether such differences are relevant for

Diploma, Advanced Diploma and Degree level programs. Similarly, a difference in the kinds and levels of support students perceive between the two sectors – and whether they are accessed – is an important issue for further study. In this research it is thought that some focus on the assessment practices in use across both sectors may also offer significant insight into differences in the pedagogy across the sectors. For this reason it is thought that one of the gaps that need to be researched in this study is the differences in assessment, particularly authentic assessment.

Conclusion

This paper summarises the literature review and begins to identify some of the issues and gaps in the existing evidence base. Much of the existing research is derived from studies of students transitioning from secondary schools into HE and therefore should be read as indicative and in need of further exploration with VET students. Missing from much of the research is the data from VET students. The review confirmed that teaching, learning, program design, and assessment practices are significantly different between VET and HE programs. Specific to VET is the use of the competency-based approach to training and its strong and direct connection to industry. Accordingly, the teaching, learning and assessment practices often utilise authentic tasks and authentic assessment. Learning in HE is regarded as knowledge based and teaching is commonly provided through lectures, with follow up tutorial based discussions. HE study is believed to require analysis, autonomy and self-direction, and learning often assessed through examinations and essay writing based on personal research and assignments. Clearly it would be a significant breakthrough to build on the strengths of the two different systems.

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