

Merging paradigms: teaching and learning in school-based vocational courses

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Introduction

The research reported here was undertaken as part of two connected projects. The larger research that defines the broader aims and questions was an ARC Strategic Partnerships with Industry – Research and Training (SPIRT) project conducted by the Faculty of Education at The University of Sydney in partnership with the NSW Department of Education and Training and the NSW Board of Studies. This project is titled *Vocational Education and Equity in Senior Schooling* (VEESS) and examines the place of VET in secondary schooling in response to the introduction of accredited vocational subjects in the New HSC in 2000. Primarily it is concerned with questions of equity, access and outcomes for students, implementation and the role of teachers, and implications for future policy and practice. The smaller case study is concerned with curriculum, pedagogy and knowledge in relation to the growth of vocational education in senior secondary schools.

Background to the research

In 2000, a ‘New’ Higher School Certificate (HSC) was implemented in New South Wales. An important part of this reform was the introduction of seven courses that provide nationally-accredited vocational qualifications – generally at Certificate levels I or II in the Australian Qualifications Framework (AQF) – as well as contributing to students’ university admission index (UAI) score. These Industry Curriculum Frameworks (ICF) courses are based on relevant Training Packages and, at the time of the research, were available in the following occupational areas:

- Business Services (Administration)
- Construction
- Information Technology
- Metal and Engineering
- Primary Industries
- Tourism and Hospitality
- Retail

The stated aim of the HSC reform was to create a “stronger, simpler and fairer Higher School Certificate” (NSW Government 1997), and the ICF courses were seen as “appropriate for all students, including those who intend to go on to higher education (Board of Studies NSW 1998: 1). According to ICF syllabus documents, these courses are included in the HSC “to allow students to access both long-term and short-term employment opportunities” (Board of Studies NSW 1999: 9).

Before 2000, senior school students were able to study vocational courses as part of their HSC, but in the main these courses did not contribute to the UAI and did not

attract AQF qualifications. The VEES project was put forward to investigate the implementation of the New HSC and the implications of this for schools and students, particularly in regard to issues of equity and social justice.

The studies

In the larger VEES project, interviews were conducted with 204 students studying one or more school- or TAFE-delivered HSC VET courses, 52 parents or caregivers of students studying HSC VET courses, and 79 DET staff (mostly VET teachers and coordinators). The interviewees were selected from eight schools participating in the study.

To select the research sites, a short list was generated from schools that had particular characteristics relating to socio-economic status (SES), locality, and numbers of senior students enrolled in vocational courses. The short-listed schools were then invited to participate in the study, and participation by all schools and interviewees was voluntary. Table 1 shows the socio-economic and the VET-enrolment characteristics of the research sites. Pseudonyms have been used to fulfil the commitment to confidentiality given to participating schools. Some data for the smaller case study was collected at Everdale as part of the VEES project.

Table 1: SES and VET characteristics of research sites in the VEES project

	High SES	Medium SES	Low SES
High VET	Wilkins	Everdale	Orana
		Brownsville	Riverton
Low VET		Springfield	Brixton
		Patterson	

Everdale is a large co-educational, comprehensive high school in a regional city in NSW which draws students from three feeder schools located in suburbs that vary considerably in terms of desirability and wealth – one is a ‘professional’ suburb, another is a traditional working-class area. Most residents in the city describe themselves as Australian and there are few non-Australian born and non-English speaking residents when compared with most metropolitan and regional cities in Australia. It would be fair to say that Everdale attracts students on its reputation for being a high-performing academically-oriented school and that this perception is reflected in the climate and culture of the school – which makes it an interesting case given its high number of VET enrolments.

At a time when various senior colleges were being established elsewhere in the state, Everdale and two other city schools formed a senior collegiate as a pro-active attempt to remain 7-12 comprehensive schools. The collegiate extends subject choices in the three schools, and under this arrangement all ICFs other than Primary Industries are available to senior students – as are a wide variety of TAFE-delivered VET courses that don’t contribute to the UAI. The industry areas covered in the case study are Business Services, Construction, Information Technology, Hospitality and Retail. Part of the Construction course is delivered at the local TAFE campus.

The research data for the case study was collected over two years and includes:

- semi-structured interviews with eight school-based VET teachers [six who remain in the study], two TAFE teachers, the school Principal, the school VET coordinator, the District Vocational Education Coordinator, 21 students, seven parents, and three employees who supported participating VET students during work placement;
- observational records [and some audio-taping] of 21 classes delivered by the participating teachers, in vocational and non-vocational HSC courses; and
- syllabus documents and support materials, field notes, notes from meetings, course information sessions and professional development activities, and policy advice from the NSW Department of Education and Training and the NSW Board of Studies.

The researcher also acted as mentor for some of the teachers who were seeking accreditation for the Certificate IV in Assessment and Workplace Training.

Curriculum as decision making

It is important here to explain the writers' understanding of curriculum in relation to this research, and for this we borrow heavily from Lovat & Smith (1995: 23) who consider that curriculum:

can best be conceived as decision-making action that integrates both intention and the manner in which the intention becomes operationalised into classroom reality. This reality, however, must be negotiated and modified because of a range of contextual circumstances.

Decision making, then, as part of curriculum-related activity involves making choices from alternatives, and these choices reflect the ideologies and beliefs of the decision maker. This is true for decision-makers throughout the process of curriculum work, whether constructing a syllabus document (the intention), or negotiating the intentions of a prescribed syllabus within the classroom. The key questions that influences these choices are *what knowledge is considered to be of most worth* to the learners, followed by questions of useful learning tasks, appropriate sequencing, structure, assessment and so on (Lovat & Smith 1995: 23). Each decision or choice is context-specific. In the classroom choices depend on the teacher, the learners, resources, available time and idiosyncrasies of the learning environment, and for the syllabus writer they largely depend on influence exerted by institutions, disciplines, and interests of the more powerful stakeholders.

Training Packages as curriculum-related documents

In the case of Training Package developers curriculum-related decisions must fit within the competency-based training (CBT) system and the accepted understandings that underpin it, as well as conceptual and practical frameworks like quality assurance and the AQTF. It could be argued that in the current VET environment curriculum work, as context-specific decision making, becomes more complex when the intention is fundamentally influenced by the needs of industry and government over the needs of the learner. Although, some might argue that this influence makes the decision-making process less complicated.

As curriculum-related documents, Training Packages inherit a problematic legacy from older forms of CBT that have influenced training models in Australia. The narrow view of competence utilised in these earlier competency models, especially those being borrowed from the US (Chappell et al 2000), was of particular concern to many teachers and academics, as was and the perceived limitations of the behaviourist principles on which these CBT models were based (Gonczi & Hager 1992). Doubts were also raised over the preferred form of competency standards and whether it was useful for the various industrial and educational purposes put forward by policy makers and CBT enthusiasts (Scheeres & Hager 1994, Hager 1995). Many of these concerns are still being argued (for example, Smith 2002).

More recently Training Packages have come under scrutiny within the vocational education literature, with the familiar criticisms of Taylorism and fragmentation presented by Hunter (2001) who contends that the high degree of specialisation within most Training Packages leads to a limited and task-focussed view of competency. Hunter (2001) also considers that these reforms reinforce the view that vocational or work-related knowledge are the only things worth learning in a competency-based system.

In their simplest form, Training Packages consist of competency standards developed around a particular occupation, and guidelines for how someone might achieve nationally accredited vocational qualifications associated with that occupation. As curriculum-related documents for teachers delivering the ICF courses in schools, Training Packages have been ‘repackaged’ into courses that are considered suitable for school students attempting the HSC, and include additional information related to their implementation in the school environment.

In regard to how vocational teachers respond to Training Packages, Smith (2002: 5) found they are critical of this ‘thin’ form of curriculum which is limited to the articulation of workplace tasks and which provides little opportunity for students to develop underpinning knowledge or reflective and critical skills. Smith (2002: 5) contends that teachers also believe students lack respect for a curriculum based exclusively on workplace tasks. However, others researchers have concluded that it is the lack of strong educational leadership and clear models for their successful application that are the real concerns, rather than the nature of the Training Packages themselves (ANTA 2002).

Limitations of the paper

The case study research reported here does not seek ‘truths’; rather, it seeks useful connections between the practice of teaching, theories of teaching and learning, and teachers’ theories-in-action. It is the thick description and rich data collected as part of the study that go some way toward capturing the complexities and nuances of teachers’ curriculum decision-making activities and exploring the beliefs and understandings that influence these activities – in this case.

The connections and understandings presented here are tentative as they largely rely on data that, at this stage, have undergone only preliminary analysis. However, we believe they represent important insights that we will pursue and which might be of interest for others researching in this area.

Curriculum decision-making and teachers' vocational knowledge

Generally, the teachers who participated in these studies did not use 'VET-speak' but often used a hybrid of school education and VET-related terms and concepts. When we refer to teachers' beliefs about competence we include allusions to skills, knowledge, understandings and attitudes – mostly employment-oriented – that, in the view of the researcher, represent the notion of competence as commonly understood in the Australian VET context. Likewise, some interpretation is made about teachers' references to curriculum decision-making activities, and what might be considered academic or vocational forms of knowledge.

In the case study research, these issues are emerging:

- Notions of *competence* tend to be broader for those teachers who have developed their vocational knowledge largely through workplace experience, and who continue to use that experience as a benchmark for the intended outcomes of the vocational course they teach. This is the case for three teachers: one who has been employed as a full-time office worker interspersed with her teaching career; one whose mandatory work-placement seems to have a strong and continuing impact on her curriculum decision-making; and one who has had several years' recent experience working in an IT related-role in the school system.
- There is a stronger delineation between *knowledge* and *skills* by those teachers who use TAFE and TAFE teachers as their benchmarks. This is particularly the case for one hospitality teacher, and to a lesser extent for two retail teachers.

In regard to broader understandings of competence and how they might influence curriculum decision-making in the classroom, in this case there is some evidence to suggest that a more *convergent* paradigm is emerging whereby aspects of both vocational and general knowledge are awarded similar value by teachers. This paradigm is considered *newer* in relation to the traditional theory-practice model that continues to underpin many vocational programs in Australia and which is reinforced by narrow models for CBT and the fragmented nature of competency-standards and Training Packages. The shift towards this paradigm is more apparent in the practices of teachers who have developed their vocational knowledge largely through workplace practice and experience.

In regard to the delineation between *knowledge* and *skills*, there is some evidence to suggest this delineation is more evident in the practices of those teachers who use TAFE courses and TAFE teachers as benchmarks for student outcomes and their own vocational knowledge. In fact, the clearest separation between *knowledge* and *skills* was apparent in the lessons conducted by the TAFE teacher [at a TAFE campus] where there was both spatial and conceptual demarcation between the theory and the practice environments. This demarcation influenced and limited what was done by the teacher and students, for example, during one lesson the teacher brought a number of power tools into the theory room and handled them to identify components and demonstrate some aspects of their use; the tools weren't plugged in and didn't represent a danger, however, throughout the lesson they remained physically separated from the small group of students. The students were asked to complete diagrams of the tools and label their parts, and were not invited to touch them. Also, the students didn't ask to touch the tools. During this and other lessons, frequent reference was made to using tools [related to the topic of the lesson] in the workshop or during

outdoor practical classes. The learning process was physically separated by time and space, and conceptually separated by *head* and *hand* knowledge.

These insights are considered important in light of recent research into the workplace as a site of learning, particularly the work of McIntyre et al (2000) which examines the pedagogical relationships and new forms of pedagogy emerging through academics' engagement with work-based learning, and the continuing interest in workplace learning and the development of vocational knowledge (for example, Billett 1995, 1996).

The vocational-general divide

Tensions between vocational and general education are not only played out in the classroom. Divisions between VET supporters and non-supporters are evident at school, district and system levels despite the best efforts of policy makers and [some] educational leaders.

In several schools in the VEES project there was evidence of antipathy between VET teachers and others, fuelled, at least in part, by lack of understanding and consultation. For example, one social science teacher indicated that he would have liked the opportunity to have trained to teach Business Services or Retail, but wasn't given the opportunity because teachers at that school were selected on the basis of a correspondence with the similarly named non-VET subject. The executive at that school also made decisions about implementation with little consultation, and consequently, year ten coordinators were left to advise students going into year eleven (and their parents) without out any detailed knowledge of the courses available. Not surprisingly, a division subsequently emerged between VET and non-VET teachers.

Leadership also contributed to the 'burnout' in some schools – particularly one school where VET teachers, and in particular the VET coordinator, were given high workloads and the most difficult classes to work with. At this site, the VET coordinator was replaced in each of the three years of the VEES study; the first left the school, the second stopped teaching VET, and the third took a position in the private sector.

Implications from the research

The writers consider that these implications follow from the research reported here:

- There is a need for more, and more effective, professional development programs for vocational teachers and trainers that improve vocational knowledge and pedagogical content knowledge. Moreover, this *humanist* approach should be promoted over the resource-intensive approach to developing Training Packages [the *behaviourist/positivist* approach] as the preferred basis for achieving quality and consistency and other stated aims of the AQTF.
- There is a continued need for broader conceptions of competence to underpin the work of vocational teachers and trainers.
- With regard to the school system, there is a need for teachers to be presented with VET as a legitimate aspect of secondary education. Teacher education institutions still prepare secondary teachers as if secondary education's sole purpose is to prepare students for university entry.

- Educational policy should better reflect the efforts made by schools to incorporate and promote VET within the school and within the school community.

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