The Relationships Between Research and Decision Making in Education: An Empirical Investigation

Terence Lovat
The University of Newcastle

Abstract

Chapter 5 of DETYA's volume The Impact of Educational Research (Selby-Smith 2000) begins with an examination of the peculiarity of decision making in the VET sector, followed by an examination of the idiosyncratic consequences for the function of research in the sector. Having established the distinctiveness of VET in relation to these two key factors (decision making and research), the chapter then proceeds to explore the linkages between them. The study on which the chapter is founded identified a complex research culture, in which overt forms of impact are difficult to detect, yet where, it is concluded, research nonetheless plays its part. The research which is likely to impact most heavily is that which is conducted around the practical issues with which VET must deal, preferably with a heavy on-site component, and which is carried out by researchers who are prepared to engage most fruitfully with the VET culture, ideally with a long lead time and maximum follow-up to the actual research phase.

Chapter 5 contributes to the overall Impact volume in a variety of ways. First, it offers an insight into the enigmatic nature of educational research in general, and especially as it relates to the VET sector. Second, it makes it clear that educational sectors like VET are likely to be affected by research only when its application to their practical needs is clear and it is carried out by people who are committed to working with their realities. Third, there are broader lessons to be taken from the chapter, especially for university researchers who are imputed by the chapter to be among the least likely to effect research that impacts on practical policy and decision making. While unrelated to the main body of The Impact of Educational Research project, Chapter 5 contributes to the overall work through exposing the real world of research impact in what is very likely the least understood of the educational sectors.

Introduction: the history and focus of VET

Vocational education and training (VET) is an international phenomenon. True to its name, it represents an educational sector orientated towards the training necessary for future vocations or careers. Keating et al (2002) define its essential nature by contrasting its applied and practical orientation with the academic learning more characteristic of universities. In its most traditional form, VET has been seen as an alternative post-school educational pathway for school leavers. In recent times in Australia, the once clear boundaries between this pathway and that of the university have been blurred a little by the development of the so-called 'multi-partner campus' (DETYA 2000a). There has also been an increasing tendency to integrate VET into the curricula of the school sector, especially in senior secondary studies (McGaw 1997).

Especially since the incorporation of all of higher education into the university system through the Dawkins reforms of the late 1980s, the role of VET in Australia has become increasingly important to national goals and strategies. While, through these reforms, much of the professional and para-professional training required by society was drawn into a more comprehensive university system, skills training in other para-professions and trades across a range of services still needed to be accommodated by VET. Because of the more practical and applied orientation of much of this latter training, VET policy and practice is often assumed to entail greater responsiveness and flexibility in the face of societal change, new technologies and innovation (Kearns and Papadopoulos 2000). In short, it is taken to be a mechanism for more rapid response to shifting community priorities than is provided by the university system.

While there are differences to be found in the conceptions and operationalising of VET internationally, the same needs, and assumptions about how to fill those needs, seem to be found in most westernised countries (Adams 2000). In 1983, *A Nation at Risk: The Imperative for Educational Reform* (NCEE 1983) was released in the USA. It identified the urgent need for school students to be prepared for the technical work required by society. In the twenty years since this report, a raft of education Acts have established systematic means by which students can move from appropriate school-based courses of study to post-school work and further associated study (ACTE 2003). In the UK, VET has an even more overt and defined history, with responsibility resting largely with local education authorities until the 1988 *Education Reform Act* mandated a national system. In turn, this has led to the development of a national qualifications framework, something still not found in the USA (Adams 2000).

In Australia, a national qualifications framework has developed. It is similar to the UK framework, although some of the features of the more devolved system of the USA can be seen both in the fact that each of the states has a TAFE (technical and further

education) college system independent of each other, and in the fact that a large number of registered training authorities (RTOs) are given responsibility for VET. While the TAFE systems were established by the Kangan Report of 1974 (ACOTAFE 1974), it was only after the amalgamation of all higher education into one university system that there was a need for a national system of VET. In 1992, the Australian National Training Authority (ANTA 1999) was established and, by 1995, the national system of qualifications, known as the Australian Qualifications Framework (AQF), was in place. It was this innovation that allowed for effective control and monitoring of the partly devolved RTO mechanism.

It is against this background and framework that the issue of VET research must be analysed. VET research has two focuses, one internal and the other external. The internal focus is on the formal VET sector itself, while the external focus is on those industries and general work practices in the larger society with which the sector interacts. In Australia, the role of VET in research has been formalised through the establishment of a number of bodies at the national, state or territory, and individual institutional level. Examples of such bodies at the national level include the National Centre for Vocational Education Research (NCVER) and the Vocational Education and Assessment Centre (VEAC). The VEAC home page offers a typical example of the type of research to be found under the VET banner: 'VEAC undertakes applied research and training and advisory services in assessment and workplace training … VEAC works in consultation with industry, enterprises, training providers and learners' (VEAC 2001).

A TAFE-based example can be seen in Canberra Institute of Technology's Centre Undertaking Research in Vocational Education (CURVE). CURVE's home page tells us that its research team 'consists of practitioners who, in addition to having well-developed research skills, have direct experience in the delivery of vocational education and training' (CURVE 2002).

Symptomatic of the blurring of VET and university boundaries, we find an increasing number of universities also establishing centres with a VET focus. The home page of the National Institute of Labour Studies (NILS) at Flinders University of South Australia describes its work in the following way:

> NILS produces research … in the following key areas: analysis of labour market developments … industrial relations and organisation; employment, unemployment and labour mobility; work productivity and workplace performance; employee attitudes; … immigration and earnings and wage trends. (NILS 2003)

The species of research conducted in the VET sector is commonly referred to as 'research and development' (R & D). While R & D is not formally distinguished from the research more typically found in universities and scientific research institutes, it is understood informally to be focused on practical and applied outcomes. In contrast, the tradition of research to be found in universities and research institutes is more typically of the purified form, where the practical outcomes are regarded as less of a priority. While these research boundaries are blurring along with the general blurring of the post-school sectors (see Keating et al 2002), the concept of R & D has been used effectively to designate a distinct research charter for the VET sector.

The scope of Chapter 5 of *The Impact of Educational Research*

It is against this background that the study contained in Chapter 5 of *The Impact of Educational Research* (Selby-Smith 2000) is to be understood. Chapter 5 contains part of the report of an unrelated study into the impact of educational research on policy, practice and community relations in the VET sector. The unrelated study in question was one conducted through the Centre for the Economics of Education and Training/ACER in collaboration with the Research Centre for Vocational Education and Training. It was titled 'The relationships between research and decision making in education: an empirical investigation'.

The focus of the study was on decision making in VET and, specifically, on the extent to which this decision making is influenced by research. While other dimensions of the study appraised the relationship between research and decision making in the areas of 'practice and performance' and 'community relations', the aspect of the study reported in Selby-Smith (2000) is confined to appraisal of 'policy and planning'. In that sense, the study might be seen as focusing on the heart and soul of VET, on that level of the VET culture where a research mentality will either be in place or not. If research can be seen to impact clearly on policy and planning, one could confidently assert that VET incorporates a research culture, and that the vast amount of work done by the many bodies (referred to above) to instil a research orientation in VET has born fruit. On the other hand, if the impact of research on policy and planning is absent or overly dubious, it is unlikely that research will be a major influential factor further down the line in such matters as 'practice and performance'. The potential was there in the study for a profound assessment to be made of the extent to which research has saturated the VET sector, or not as the case might be.

As suggested, the part of the report presented in Chapter 5 is confined to the impact of research on policy. Impact in this chapter is assessed from five standpoints or 'perspectives'. Each standpoint denotes an approach to the gathering of the essential data. The approaches were a literature review, a symposium, two surveys, nine case

studies and feedback from ten international experts. The author labours the point that there was internal consistency in and between each of the five approaches. In particular, Selby-Smith says, each approach was carried out with consciousness of the complexity of the relationship between decision making and research. Owing to this complexity, he avoided claims about simple causal relations. In order to avoid simplicity, Selby-Smith suggests, each of the factors (i.e. decision making and research) had to be studied in its own right as a first and second stage, with a study of the linkages between the two being a distinctive third stage. This provides an early clue to the order of reporting to be found in Chapter 5.

The decision making section in Chapter 5

Selby-Smith suggests at the outset that the nature of decision making in VET must be understood in order for an effective appraisal of research impact to be carried out. He distinguishes between the 'use' of research in decision making and its 'influence' on the decision once made. The postulation is that research can be used, but may not necessarily be the influential factor, in decision making. On the other hand, research can be the influential factor, although this may only be obvious if the decision is to change existing policy or practice. If the decision is to maintain the status quo, the influence of research may be quite real yet subliminal. Additionally, there may be other subtle features in the influence of research. Examples are given in Chapter 5 of senior VET staff professing unawareness of research yet accepting advice that was research-based. Furthermore, at the symposium it was alleged that VET staff often proffered views that were clearly research-based while being apparently oblivious that this was the case.

All in all, the surface evidence suggested a marginal role for research. The dominant determinant in decision making was identified as a 'pragmatic negotiated political approach', with systematic use of research being a less common feature. Anecdotal evidence would seem to put the reasons for such pragmatism down largely to the political pressures and resource-squeezed environment in which so much of VET was forced to operate throughout the 1990s. Full-blown commitment to research in such an environment was seen increasingly as an unaffordable luxury. There was also a sense expressed that formal research findings are generated too slowly to allow for a direct influence on decisions that need to be made with expedience. Regarding this, it was not the value (or lack thereof) placed on research that was the issue, so much as the dominance of other more urgent factors. Among these other factors were the power play between management and unions, Commonwealth and state governments, and public and private sector providers, as these impact on VET on a daily basis.

Of great import were the findings related to what Selby-Smith describes as 'the assumptive worlds of key individuals and organisations' (2000, p. 558). For many of the subjects of the study, the fact that research was ipso facto of low priority, perhaps even counter-cultural, was itself sufficient to determine its low use and influence in decision making. The final determinant in condemning VET to its relatively low research status was the closure of many of its R & D units, owing to the resources downturn of the past decade or so.

For all this, there was general acknowledgement that research was valued, albeit peripherally, as a factor in VET decision making. At the same time, some participants believed that research impact was often easier to detect when it was not specifically related to the core VET agenda. In other words, it was easier for respondents to identify research impact in decision making areas like work organisation and industrial relations, which are clearly relevant, but not directly related, to the distinctive work of VET.

The research section in Chapter 5

The chapter utilises the ABS definition of research as 'creative work undertaken on a systematic basis in order to increase the stock of knowledge … and the use of this knowledge to devise new applications'. (Selby-Smith 2000, p. 559) Selby-Smith suggests that it would be a fundamental misunderstanding of research in VET (and, indeed, in education generally) to consider only pure ('big R') research. The concept of R & D, found in the VET sector, centres heavily on investigation and a close association between it and 'development application'. This latter is defined in essentially utilitarian terms. That is, research is seen to work for the enterprise if it provides new knowledge or shows how existing knowledge can be used in new ways, provided it sharpens skills and attitudes or it clearly rests practice on evidential bases.

Furthermore, Selby-Smith emphasises the 'accumulative' nature of R & D. In other words, he suggests it is rare to find an individual study having direct impact: 'The one-to-one notion (of research impact on decision-making) has been scotched' (Selby-Smith 2000, p. 560). Rather, the impact is seen in an accumulated 'climate' created through ongoing R & D,

> … viewing research as a 'process of debate' (Klein 1990) or conceptualising a 'knowledge reservoir' (Buxton and Hanney 1997) highlights the value of an ongoing research capacity from which decision-makers continually can draw ideas and advice. (Selby-Smith 2000, p. 560)

Research and development in VET has traditionally been carried out using a variety of sources, including universities and consultancy firms. In generalised terms, the former have specialised in discipline-based approaches with an emphasis on 'big R' research, while the latter have been more inclined to interdisciplinary approaches, emphasising the 'D' end of research. Funding pressures in the 1990s tended to move R & D more heavily towards the application, or 'D', end owing to the need for research to move quickly to results and conclusions in order to fit ever-decreasing funding regimes. This forced universities increasingly to gear their research towards the 'D' end as well, and so some of the traditional barriers between the work typical of universities and those of consultancy firms became blurred. More than ever, a close link and good communication between researchers and users became increasingly important. Hence, throughout the 1990s, workplace research (i.e. externally focused research) increased while the proportion held in TAFE college sites (i.e. internally focused research) almost halved. Two-thirds of all R & D studies were defined by RCVET (the Research Centre for Vocational Education and Training at the University of Technology, Sydney) as 'applied', with very little defined as 'basic'. Virtually all of this latter research was conducted by universities, though, as suggested, universities were also increasingly involved in the applied studies as well.

The challenge for universities in all this is signalled well in the literature review conducted for the study. This points to a perception that much university-based research is seen as limited by the unfamiliarity of the investigators with the practicalities of decision making. The same view was expressed, though in obverse terms, by the symposium participants who held that consultancy firm research had greater capacity for 'helping things happen'.

The linkages section in Chapter 5

The point about linkages is fairly well made by the time Selby-Smith attempts explicitly to draw together the linkages between decision making and research. Clearly, the impact of research on decision making is affected hugely, and it would seem determined largely, by the linkages between research and researchers, on the one hand, and decision making and decision makers, on the other hand. Furthermore, linkages are most effective when they occur before, during and after the actual study. In spite of this, the literature on linkages is sparser than on either research or decision making on their own. Furthermore, Selby-Smith judges that the literature that does exist inadequately captures the subtleties implied in effective linkages. The reason for this, it is said, is because the literature tends to concentrate on formal flows of information between researchers and decision makers. Clearly, assessing impact requires more than that, especially in light of evidence that the most effective linkages occur when research is integrated into the practical work of the decision-making

setting. Here, the work of the researcher and that of the decision maker flow in both directions: in this context, the emphasis placed on 'dissemination' as an 'end point' of research is misplaced, resting on a more linear conception of 'research to decision maker' than is reflected in reality.

In fact, research in the VET sector is a complex phenomenon, incorporating multiple pathways of potential influence and so requiring multiple forms of collaboration between researchers, decision makers and users: 'The stronger the linkages, the clearer the pathways of influence are likely to be and the greater the likelihood of uptake for new ideas' (Selby-Smith 2000, p. 563).

Selby-Smith emphasises the need for linkages to operate at all levels. These should include formal ways (i.e. 'sustained activity') that are more likely to lead to 'instrumental change'. At the same time, these should be supplemented by informal arrangements that ensure researchers know what the real issues are and, in turn, that facilitate the best forms of information flow. Similarly, a balance of direct and indirect linkages maximises the chances of research impact. Direct linkages are obvious, whereas indirect ones might consist of work that is done by researchers through the bodies attached to the industry in question, such as unions or allied partners. Indirect linkages via the media or public debate might also optimise the right type of information flow.

The symposium held as part of the study and the international correspondents drawn on as experts both suggested that effective linkages between research and decision making could be enhanced by institutionalising 'brokerage' as a way of smoothing the path between the producers and users of research. Furthermore, the two forums both recommended that, while there was an increasing tendency for VET to outsource research, it should continue to have a coordinating function integrated within its regular infrastructure. By this means, it was held, internal research linkages would be facilitated and preserved, in some measure at least.

Concluding remarks made in Chapter 5

The chapter concludes with three main points: first, research plays a role in VET policy and practice, though only rarely is the impact non-complex and linear: 'The nature of research is accumulative; individual studies add to the body of knowledge, some slightly, some more substantially' (Selby-Smith 2000, p. 564). Second, and related, the complexity of the role played by research defies simple quantitative analysis. For similar reasons, it is not possible to identify the extent of the impact by focusing on the phenomenon of formal research systems without taking account of such variables as the contexts of research and the precise relationship between the

producers and users. Third, enhancing the research base of VET policy and practice can clearly only occur through two-way collaboration between researchers and decision makers:

> Researchers have obligations to be committed to the research enterprise, to keep up to date in their field, to maintain the quality of their work and to be willing to engage with their broader communities. Decision-makers have an obligation to be engaged with the world of ideas and to think, read and participate in intellectual debate. (Selby-Smith 2000, p. 565)

Wider lessons for educational researchers

The central lesson educational researchers should take from Chapter 5 is fairly obvious. If one wishes to work effectively as a researcher in the VET sector, one needs to know it well, become to some extent part of it by developing relationships with the policy makers and users (ideally, including a long lead-time), and become familiar with their issues, dispositions and the potential for implementation of findings. Furthermore, one needs to keep in touch throughout the research phase and to commit to intensive follow-up, sometimes with no designated purpose other than 'keeping in touch', maintaining trust and ensuring maximum communication flow, including about confusions, irritations, skepticisms and structural obstacles. The VET researcher cannot hope to have an impact from a distance nor least from the ivory tower inhabited by the dispositions of pure research. As an aside, one senses that the assumptions and positioning of phenomenological research, wherein one is encouraged to put away one's own mind-set in favour of the mind of the subjects under study, may be helpful for anyone engaging in research in a setting like VET. Moreover, some of the tenets of action research, with their in-built thesis of engagement with the subjects of the research, may be instructive as well.

Perhaps the most useful aspect of Chapter 5 is in its elucidating much of the general distinctiveness of most educational research. Herein, we find a professional culture where there is an element of mistrust and traditional distance between researchers and practitioners, and where 'research responsibilities are fragmented and rigorous evaluation is limited' (TAFE NSW 2001). Granted this, the message about impact within Chapter 5 would make for useful reading and reflection for any educational researchers engaged in work intended for policy implementation or on-site application. Indeed, one might speculate that the school sector, for instance, is even less naturally disposed to intrusion by researchers than is the VET culture. At least the VET sector incorporates a formal R & D dimension, albeit a little run down in recent years and more heavily skewed than ever towards the 'D' end. While, for a time, there

was a fashion towards school educational bureaucracies having their own R & D units, most work is now outsourced. Even when these were in place at the bureaucracies' centre, the likelihood that they would impact at the level of the local school was probably even less than is the case with VET.

If these assumptions are correct, then educational researchers working in the school sector face even more of the obstacles to easy implementation spelled out in this chapter. The very practical and applied world of the school makes it even more likely that R & D, where it might exist, will be skewed to the 'D' end. As suggested, at least the profile of VET does include a formalised research dimension and, as well, VET has engaged in research in and with industry in a way not normally found in the schools. One senses that schoolteachers do not see themselves as researchers, in spite of occasional efforts by academics and systems to convince them that they should. If this is the case, then even the 'D' end of research will need to be accompanied by an intense meeting of minds, if not colliding of worlds, between the producers and the users of research to have an impact in schools. As suggested in other sections of the *Impact* report, this appears to happen best when the collision occurs within the one person. When, for instance, a teacher's own formal research emanating from a Masters or PhD thesis intersects with an area of policy or practical need in a school, then the likelihood of the research impacting is maximised. Where the researcher is an outsider to the system, the colliding will need to be carefully constructed, regardless of the apparent urgency of the work in question. Where the outsider is addressing an issue not regarded as urgent by those on the ground, the chances of impact are minimal.

As identified in Chapter 5, there are particular issues in all this for university researchers. University researchers are more likely to be motivated by pure research intentions and to believe in and employ more formal methodologies without engaging in the 'customer-focused' service identified as essential for true impact. The reality, as well as the image, can be unhelpful. As indicated, the group from the consultancy firm is often better equipped to win the public relations battle and, because of the 'customer-focus' imperative, more likely to spend the time engaging with the client to ensure practical application.

Critique of the chapter

As suggested above, the point of Chapter 5 is apparent. This is in spite of a text that, one senses, may have been around for a while searching for a home, and so made no direct reference to the broader *Impact* report into which it was incorporated. The text appears a little disorganised, in spite of clear subheadings, and evokes a definite air of repetition. This may be owing to the ambiguities and multiple web lines

characteristic of the findings. In that sense, the texture of the report may be quite symbolic of its content.

The most significant criticism to be levelled at the chapter concerns the lack of precision in identifying the many species of VET research. Research in the VET sector covers everything from the work that VET staff themselves carry out with industry partners (the so-called 'external' focus) where, in a sense, they become the consultants, through to work conducted by VET staff (and external parties) on the VET sector itself (the so-called 'internal' focus). It includes large-scale work with highly defined goals, huge injection of resources and an urgency of closure, through to more day-to-day, less defined and more humble research. These are all very different and, one would suspect, likely to render quite different impact findings.

While the work of the chapter is of value, it reads more like a 'teaser' than anything definitive. One might suggest that greater definition could have resulted from a more focused investigation, rather than one that relied on so many disparate research tools that, in spite of the claim to internal synergy, are not obviously integral to each other. This criticism, however, may be too harsh. It is no doubt true that a smaller array of instruments might have rendered greater coherence of findings, as indeed might a slightly more ordered reporting format have achieved the same. The investigation's true value, however, may be in its capturing the truly complex, almost random nature of the VET sector's relationship with educational research. As an appraisal of the impact of research on the VET sector, it is a rare contribution, even when one includes the international scene.

Conclusion: VET, R & D and the 'big R'?

Caught as it is between more traditional sectors (e.g. universities and schools) that have a much clearer relationship to research, it may be that, as yet, VET is a sector best described as 'neither fish nor fowl', at least in its relationship to research. No doubt, part of VET's enigmatic charter was originally to bring the world of research closer to industry, with TAFE being society's major arm in the 'new' R & D. For all the impulsion towards the pragmatic that one expects to find in VET, there is no doubt that this charter was at least partly about developing strong links with the world of formal research, the 'big R'. If the chapter in question is correct in its findings, one could draw a number of conclusions about this aspect of VET's charter.

One of the conclusions might be that the kind of research that does make an impact in VET's R & D functions is so indefinable and distant from the world of formal research that we may be talking about something entirely different and, if so, the original charter might need to be re-visited. Another conclusion may be that VET's

charter has been disturbed in such drastic fashion by the watering down of the erstwhile fairly formidable R & D units of TAFE that the strong links it was meant to build between industry and formal research have not been allowed to develop. A third conclusion might be that the concept of a freestanding sector with a distinctive mediating role between industry and formal research is a faulty one. If it is seriously held that there is a benefit to be derived from linking industry with formal research, one would think the role of universities must be crucial to it. If it is verifiable that university-based research exhibits the limitations identified in the chapter, the way forward may be in reforming this situation. This may be done through even stronger incorporation of the VET agenda into the work of universities than is the case currently, be this through developing better linkages between universities and TAFE or through collapsing the sectors entirely in the way that has become fashionable of late, especially in Victoria. In this regard, it would have been interesting if the study being reported in the chapter had explored the different impacts of work done by researchers from different species of university, especially comparing those from universities that have incorporated the VET agenda in a formalised way with those that have not. In summary, the chapter raises at least as many questions about the viability of those structures that currently house the VET agenda as it does about anything else.

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