

The Impact of VET Research

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INTRODUCTION

Previous studies have shown that the relationships between R&D and its decision-making outcomes are almost always complex and not easily discerned. The idea of a one-to-one relationship between research studies and decision-making generally has been discredited, although individual studies may have an impact. The R&D system's major contribution to decision-making may be through the 'big ideas' which are in good currency, often with a considerable time lag. There are many sources of R&D, many potential uses for R&D in decision-making and many potential pathways between researchers and decision-makers.

The seventeen case studies considered in this paper are complementary to the book which was published in 1998 by the NCVET (Selby Smith, Hawke, McDonald and Selby Smith 1998). They grew out of a consultancy advertised by ANTARAC in April 1996 to 'review the evidence for and where possible evaluate the extent of influence of research in VET'. The research team proposed, and the funding body accepted, that the research question should be examined from five complementary perspectives: a review of relevant literature; a symposium; quantitative studies; case studies; and a reference to overseas experience.

A consistent approach informed the different perspectives (see Selby Smith et al 1998, chapters 1 and 2), arguing that analysing the extent of R&D's influence on decision-making in VET, and the pathways through which it operates, necessitates consideration of three areas: decision-making; R&D; and the linkages between them. Also, a distinction was drawn between 'use', (whether the R&D had served a particular purpose) and 'influence' (whether the R&D had made any difference to the decision which was taken). The relationship was considered primarily from the perspective of decision-making and action.

A purposeful maximum variation sample was selected, rather than a 'representative' sample. This enabled the project to capture and describe 'the central themes or principal outcomes that cut across a great deal of participant or program variation' (Quinn Patton 1990). Taken together, the case studies illustrate the diversity of circumstances and the variety of pathways through which R&D can have an impact on VET decision-making. Seven case studies relate to impact at the level of national, State and Territory policy; six relate to decision-making at the level of individual training providers; and four are concerned with community relations aspects. Also, case studies of R&D initiated by users were contrasted with case studies initiated by researchers. Researcher-initiated projects may be less immediately visible to decision-makers; less easy to incorporate appropriately in decision-making processes; and perhaps more likely to challenge established ways of thinking or acting.

CONFIRMATORY EVIDENCE

The Decision-making Domain

The case studies consider the importance of R&D for decision-making at each level.

Policy-making at national, State and Territory level.

Robinson's case study argues that R&D was important in establishing the conceptual case for traineeships developed by the Kirby Inquiry in the mid-1980s; and contributed to the prompt adoption of the traineeship recommendations by the Federal Government. The case study by Hawke and McDonald illustrates research's contribution to the development of an R&D strategy for VET, primarily at the national level. Selby Smith and Selby Smith illustrate the use of R&D and its significant influence on user choice policy-making in 1996 and 1997. Hawke and McIntyre's case study of research on adult and community education in NSW, which was commissioned by the NSW Board to explore participation and vocational outcomes, shows that it affected both national and State policy-makers. Tidemann's case study illustrates the multiple impacts that R&D had on the development of

the 1998 strategic plan for VET in Victoria, including the maintenance of an in-house 'research intelligence'.

Policy-making by VET providers

The case studies illustrate the contribution which R&D has made to decision-making by public and private providers. For example:

- i. Seddon and Clemans explored the pattern of enterprise-based research in seventeen VET providers and R&D's impact on decision-making there. They concluded that R&D 'does impact on goals and operational decision-making in VET enterprises ...[although] there is substantial variation in the extent of enterprise-based research, its character and its applications', which is 'strongly influenced by the views of research held by enterprise management and the extent to which they perceive a practical link between research activity and enterprise operations'.
- ii. Creek's case study of R&D's impact on academic developments at the Murrumbidgee College of Agriculture in the Riverina, specifically the development of the Aboriginal Rural Training Program, suggests considerable use and influence. The participants certainly believed this to be so. Creek noted that the developments proved to be 'a very exciting voyage of discovery'. Of course, agriculture has a long history of R&D, linkages between researchers and users, and an export orientation to sales in highly competitive markets. The existence of the research station at Yanco was also significant in terms of Agriculture Department attitudes and the mindset of staff.
- iii. Jones's case study examined the impact on decision-making in the Sydney Institute of Technology, the largest VET provider in Australia, of the development of the resource allocation model by TAFE NSW in the early 1990s. He concluded that, though it was not the originally envisaged objective, the Sydney Institute became a much more effective organisation as a result of its increased research orientation. The positive outcomes for decision-making transcended the confines of the single study which initiated the change.
- iv. Sefton and Waterhouse's case study investigated a registered private provider. Use and influence were both shown to be substantial; and integral to the operation of the organisation. R&D conferred a competitive edge in contested markets.
- v. The case study by Rushbrook and Clemans of Victorian adult and community education providers illustrated the capacity of a research project to broaden out as it proceeds. The project assisted capacity-building by ACE providers and enhanced their ability to act more confidently and effectively in the future.

Community Relations

Other case studies were concerned with the relationships between R&D and the wider economic, political and social systems with which VET interacts. In general, these relationships between R&D and decision-making tended to be less distinct, to be longer term, and indirect rather than direct:

- i. The case study by Hawke and McIntyre concerning adult and community education in NSW included consideration of public opinion, the policy process at both national and State levels, and the activities of Senate Committees. Hawke and McIntyre conclude that, through these diverse processes, the research: "has helped to establish 'research' itself as a basis for strategic policy development, as the sector continues to manage a turbulent policy environment"; "has helped to position ACE amid the difficulties of training reform ... [and] challenge ideas that the 'vocational' should be narrowly rather than broadly understood"; and "has moved policy in new directions".
- ii. Butler and Ferrier explored the wide range of equity studies which have been undertaken and why they have not had greater impact on decision-making. They conclude that in this important area "overall the impact of research on decision making is limited and narrow." They raise the question of whether, in many cases, the research was done "to be seen to be doing something" rather than with a realistic expectation of influencing decision-making.
- iii. Golding's case study examines the substantial movement of university graduates into TAFE; why this was not recognised earlier; and how the research has had an impact on decision-making. "It involved a specific and fortuitous finding of university to TAFE movement in one locality and in one course in one State (Victoria), turning out, through close examination of a wide range of movement and recognition data, to be indicative of an important national phenomenon."

- iv. Anderson shows that the wide dissemination of the research on student support services and amenities in TAFE through a variety of media ensured that the R&D reached interested parties at various levels of decision-making. It continued to do so over a considerable period of time.

Other Aspects

The case studies illustrate that R&D can be used for different purposes, and at different stages of the policy process. The impact of R&D is affected by the relative power of stakeholders, and the degree to which R&D evidence and attitudes have audience. For example:

- i. Golding's case study shows how the assumptive worlds of key stakeholders (focussed on TAFE to university movement, and based on hierarchical views of post-secondary education), interacted with changes in the state of the world, notably the recession, which led to an increasing number of university graduates entering TAFE courses in the early 1990's (post-graduate diploma enrolments declined in universities).
- ii. Butler and Ferrier argue that "the sidelining of 'equity' to only one of the four operational themes and then the identification of equity with access, limited its potential to be viewed and to act as a central organising feature of VET. Equity came to be viewed and treated largely as an afterthought".

Although R&D *can* influence particular decisions, it often tends to accumulate. Trembath stressed the multi-causal basis of much decision-making. Similarly, in Anderson's case study informants suggested that "the increased attention paid to student services issues at a state level in 1996 was not a discrete outcome of *Are you being served?*, but rather the cumulative effect of a series of reports." Conversely, Butler and Ferrier illustrate the adverse consequences for R&D's impact on decision-making when accumulation is deficient.

The timing of R&D can affect its impact; as does the willingness of both decision-makers and researchers to interact throughout the research process, so that the R&D remains relevant to the changing needs of decision-makers. In addition, the case studies emphasise that R&D can confirm decisions which previously were being considered favourably; can contribute to decisions not to act as well as decisions to act; and can consolidate the support for future decisions. Finally, the case studies reveal that the influence of R&D on decision-makers can be significant, even when the decision-makers are not aware of it.

The Research and Development Domain

The case studies illustrate the very wide range of environments within which R&D in VET can be undertaken. Also, that the various settings in which R&D is conducted are not necessarily independent: there can be alliances which serve their mutual interests; and overlapping interests, skills and experience among them. Nevertheless, the different R&D settings tend to concentrate on different types of research and attract researchers with different approaches, values and interests. This affects the R&D undertaken and the audiences to which it is communicated.

- i. The case studies illustrate the wide range of methodologies, techniques and approaches which are employed in VET research.
- ii. Different case studies also adopted approaches based on particular academic disciplines. This influences such matters as the problems identified, the key questions posed, the techniques adopted for investigation, the audiences with whom linkages are established and results disseminated. The appropriate research approach is related to the question to be investigated.
- iii. The case studies illustrate differences between R&D studies initiated in various ways. Most of the R&D examined was initiated by users. However, on the R&D was initiated by researchers eg. Dwyer's, Golding's and Anderson's case studies. The research in each of these three case studies raised difficult conceptual and practical issues for decision-makers. They illustrate that the implications for decision-making of R&D based on an investigation of real world situations in their full complexity can be difficult to handle.
- iv. The case studies underline the importance of R&D's contribution to providing new and better information. R&D can also apply existing knowledge in new ways, including for new audiences and in new settings. They illustrate, too, the human capital outputs of research. Personal contacts between researchers, practitioners and policy-makers enhance the use and likely influence of

R&D processes and findings. Even solid empirical research findings and useful ideas need to be tested, tried in practice and held up to critical scrutiny.

The Linkages Between R&D and Decision-making

The idea of a one-to-one relationship between R&D and decision-making generally has been discredited; and the case studies support this view. Thus the linkages become more prominent, whether direct or indirect, immediate or longer term. The linkage between R&D and decision-making may not be "anywhere near as strong as it might be" (Butterworth in Selby Smith 1998, p 8); but the case studies show that there are many of them, nevertheless. McGaw's consideration of two national reviews of educational research, one of which had its recommendations implemented, the other not, illustrates the important role of linkages. Similarly, the importance of linkages at the level of VET providers is illustrated in the case studies of Creek, Jones, Rushbrook and Clemans, Seddon and Clemans, Sefton and Waterhouse, and Trembath,. The linkages have the potential to benefit both decision-makers and researchers. Conversely, the case studies by Butler and Ferrier, Foyster and McGaw emphasise that where linkages are weak the impact of R&D on decision-making tends to be less. The linkages can operate in varied ways.

The linkages can operate when the research study is nearing its completion, but, taken overall, the case studies support Huberman's conclusion that 'sustained interactivity' is an important means of achieving instrumental change; that both formal and informal linkages can contribute; and that linkages established during a project can have effects which transcend the single study (Huberman 1990). Tidemann emphasises that, in an organisational context, the research process itself can be a valuable opportunity to develop useful knowledge, improve research skills and attitudes, and enhance linkages. Sefton and Waterhouse argue that the research process itself can foster linkages between theory and practice, between research and decision-making; as when "providers bring R&D into their day-to-day work" and "the practical realities of their day-to-day work informs their research". There is a role for intermediaries or brokers, given the significant differences in attitudes, cultures and incentives which exist between the R&D and decision-making communities, to facilitate exchange between the producers of R&D and its potential users.

R&D can also influence decision-making indirectly. For example, Dwyer's and Golding's case studies threw doubt on prevailing assumptions by confronting them with relevant but contrary evidence; and were motivated by the desire to give a more active voice to hitherto disadvantaged participants in VET. Old habits of thought were challenged and new policies and practice rendered more likely. R&D can contribute to the research system rather than directly to decision-making; although in the long term this may augment the reservoir of knowledge from which decision-makers draw. R&D which has little effect on decision-making in the short-term may nevertheless contribute to the accumulating body of knowledge, to which ideas are in good currency and to longer term changes in public attitudes, the media and the political process. Modest initial impact does not necessarily preclude a larger impact eventually.

EVIDENCE WHICH MODIFIED THE FRAMEWORK

Overall the framework for analysing the relationships between R&D and decision-making was broadened rather than changed fundamentally by the evidence of the case studies. However, the case studies emphasise the great diversity of circumstances in which the relationships between R&D and policy, practice and performance in VET take place. Of the seventeen case studies no two are identical. In some cases R&D is used but does not have influence, as in one case cited by Trembath. In other cases R&D was both used and had influence on decision-making: for example, at the level of national, State and Territory policy-making in Hawke and McDonald, Hawke and McIntyre, Robinson, Selby Smith and Selby Smith, and Tidemann; or, at the level of individual VET providers, as illustrated by Creek, Jones, Rushbrook and Clemans, Seddon and Clemans, Sefton and Waterhouse, and Trembath. In other cases the research appeared to have little influence, as illustrated by Foyster's case study, or the outcome is more ambiguous, as in the case studies by Anderson, Dwyer, and Golding. The impact of the research was not always exactly what had been expected initially, as illustrated in the case study by Jones. In a number of cases there was uncertainty about the precise degree of R&D's use or influence.

As Trembath's case study illustrates the implementation of R&D recommendations is rarely simple. Consultations are generally involved, often with a wide range of interests. Other factors can come into play. Compromises and adjustments to the original proposals are the norm rather than the exception.

Taken as a whole the case studies reveal the dynamic, turbulent and demanding environment in which VET providers, policy-makers and practitioners are operating. Perhaps this is not surprising given the contested nature of the VET environment: between Commonwealth and State Governments; between public and private providers; and between the industry partners.

The case studies also confirm that much R&D is undertaken at provider and practitioner level, especially if a broad interpretation is given to the definition of R&D; and that it has a significant effect on decision-making there.

While the focus here tends to be on R&D's contribution to decision-making, this is not intended to imply that research should be viewed solely as a support for decision-making, especially if the relationship is conceived as narrowly instrumental and short-term. Research contributes to the reservoir of knowledge, which can assist decision-making in the future. More generally, research is not solely the servant of decision-making: it has other important societal purposes (West 1997, p 1).

The case studies, especially those by Anderson, Butler and Ferrier, Creek, Dwyer, Golding, and Sefton and Waterhouse brought students and workers into prominence as an additional set of significant decision-makers by whom R&D can be used, on whom it can have an influence, and for whom it can have significance. This was a valuable addition to the framework for analysing the relationships between R&D and decision-making which had been advanced previously.

FOUR CONCLUSIONS

- i. The seventeen case studies, taken together, confirm the validity of the broad framework adopted for analysing the relationships between R&D on the one hand and policy, practice and performance in VET on the other. Typically, aspects of the decision-making arrangements, the relevant R&D system and the linkages between them are significant. The emphasis on linkages rather than on more narrowly defined dissemination increases the mutual responsibilities of both researchers and decision-makers.
- ii. The case studies stress the complexity and variety of the specific circumstances through which the broad relationships between R&D and decision-making operate; and the importance of considering dynamic as well as static aspects of the relevant situation. Administrators, policy-makers and VET practitioners tend to seek clear conclusions and simple recommendations for action, whereas the case studies emphasise that R&D often reveals the complexity of real life situations. Considerable importance can attach to individual champions or sponsors. Estimates of R&D's impact on decision-making are generally subjective and incomplete; the counterfactual is often difficult to specify; and there are multiple sources of R&D, multiple destinations in decision-making, and multiple pathways through which impact can occur.
- iii. In considering the relationships between R&D and decision-making the case studies complement other approaches, by providing richer detail. They illustrate the diverse ways in which a beneficial relationship between R&D and decision-making can operate, or be frustrated.
- iv. The case studies raise the difficult issue of the precise boundaries of R&D, especially in relation to research skills and attitudes, and at the practitioner level. The greater the stress laid on tacit and uncodified knowledge, the more attention is focussed on research skills and attitudes, and the greater the concentration on action research, professional social inquiry and reflective practice by provider organisations and individual practitioners) the wider becomes the definition of R&D and thus its likely impact on VET decision-making.

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