Towards a distributed VET research model for regional Australia

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Abstract

Practitioner research can deliver significant benefits to the VET sector, primarily because it investigates, responds to and improves practice 'in situ', while gathering and analysing relevant data, and documenting and disseminating the knowledge gained to the wider professional community.

This paper reports on an initiative for broad-basing practitioner research by the development of a 'collaboratory' - a multi-institution, multi-practitioner framework that supports research projects focusing on 'located' experience and innovation in learning and teaching. The collaboratory model encourages diverse approaches to research and learning, built around shared practice values and epistemology.

Chris Horton from Wodonga Institute of TAFE's Centre for Research, Planning and Development, and Jock Grady from NSW TAFE's Hunter Institute's *ITALIC* (Institute Teaching and Learning Innovation Centre) are working with experienced TAFE R&D practitioners in several states to build this collaboratory approach.

Introduction

There are several assumptions, biases even, to which we admit at the start of this paper. They reflect our stake in proposing this framework. They are:
- Good decision making requires good information and analysis
- Decisions are best made close to the people they affect
- Innovative organizations see collaboration as a low-risk high-return strategy
- Coherent regional systems are the appropriate level for analysing training and development needs and determining resource allocation

Institutes are accountable to their local communities, including enterprises, for how effectively these needs are met. Within our organizations, as researchers and planners, we make, or participate in, or contribute to a variety of decisions about the 'what' and 'how' of training delivery, and about the way things happen for staff and students – the participants – in our work world.

How do we make these decisions? How do we decide what matters – as evidence, as action? How do we gain acceptance for new ideas and practices? And how do we prove their worth? This is what research does.

This presentation proposes that regional VET service systems need good business intelligence to be sustainable and effective, and that to a significant extent this must be

obtained locally. But while the research data, training design and delivery decisions are highly locally 'conditioned', the approaches to gathering, analyzing and using information are generic. What distinguishes the regional research business is the context, the relationship of each provider to its communities, and the need for providers to have well developed and reliable research practice to inform their decision making.

The corollary to local contextualisation is that communities may also resource providers through connection to people with particular skill-sets, passions and foci, thus strengthening research capacity, capability and relevance. The potential exists through networking for initially local skills and input to be rapidly transferred and relocated to share the benefit more widely.

We hope that through this presentation you will challenge our propositions and help us to refine our approach, and, if you see value to you and your organization, join us in what we argue can be a regionally 'grounded' and nationally networked development of research and development practice and practitioners.

Concepts and constructs

What follows is a fairly preliminary and therefore contestable model of a nationally linked set of regional research clusters. It draws on a mix of our own experience and conversations, and the thinking and published work of several people, perhaps most notably Donald Schon (1983, 1987) on the nature of reflective practice, Stephen Brookfield (1987) among others on the development of critical thinking, Zeichner and Noffke (2001) on practitioners as researchers, and Tom Bentley (2003) on the business of organisational collaboration and networking.

The sequence of this paper, and the presentation in which we plan to enlarge upon it, is to:
1) sketch some formative elements and themes in relation to the idea of building a 'low-rise' system of connected regional research points;
2) ask some key questions about a model and an approach to developing such a system;
3) identify areas of research and development activity and potential outcomes for regional VET provision;
4) canvas ideas on gathering support for this initiative.

As you can see, this is an unashamedly 'activist' approach, through which we hope to gain understanding of our ideas and intentions, fresh perspectives and ways of improving the logic and explanation of the approach, and engagement with people who may want to participate in building what we are calling a research 'collaboratory'.

When we talk about 'researcher/ practitioners' we are, with Schon and others, arguing that successful practitioners, particularly those operating in information rich fields like education, are already in the business of constructing meaning and representing ideas through developed modes of research and critical thinking. So, at the organizational level,

you can identify an abundance of ways and positions through which research skills are applied, and outcomes developed or enriched, through application of a recognizable set of skills.

To the extent that this activity is organized and built into Institute business systems, it is predominantly *formative* and *evaluative* in nature, that is, it contributes to program building, testing and validating functions. But increasingly in the VET sector, individual professionals and systems are moving beyond what could be termed 'intrinsic research'. In part this is the natural extension of professionals recognizing the nature of the skills they are applying, and wanted to enrich their understanding and effective use of these skills. This is the 'curiosity' factor, so vital to individual learning and fulfillment. Added to this is the imperative for VET organizations to become both more adaptive and more self-reliant, more skilled in working without a script.

This is the stuff of good professional practice, what Schon has termed the 'constants', (perhaps 'meta-characteristics' would work better) that professionals in any field of practice could recognise and apply to their process of reflection-in-action:

- The media, languages and repertoires that practitioners use to describe reality and conduct experiments
- The appreciative systems they bring to problem setting, to the evaluation of inquiry, and to reflective conversation
- The overarching theories by which they make sense of phenomena
- The role frames within which they set their tasks and through which they bound their institutional settings

What does it matter if the medium of reflection-in-action is the architect's sketchpad, the relation between patient and therapist, the drawings and experimental models of an engineering laboratory, the dialogue of planner and developer, or the interactive relations among managers in a corporation? Media cannot really be separated in their influence from language and repertoire. Together they make up the "stuff" of inquiry, in terms of which practitioners move, experiment, and explore. (Schon 1983, p.271)

We move in environments that use the means but do not necessarily acknowledge the language and repertoire of research, and are therefore not always in that state of readiness, of 'critical anticipation', that makes the difference between a conditioned response and a constructed one.

Our suggested approach entails VET organizations committing to participation in practitioner-based R&D networks and collaborative activity to enrich their ways of thinking, visualising and planning. The first outcome will be to strengthen their resource of critical thinkers, an important step towards the real prize – a more adaptive and sustainable organization. "Workplaces in which innovation, creativity and flexibility are evident are workplaces in which critical thinkers are prized." (Brookfield, 139).

So the researcher/ practitioner is at the centre of both the creative enterprise and the research enterprise, as Schon puts it. These multiple roles work in tandem, with research tools and methods applied within the creative process to allow the ideas within any given project to be defined, communicated, advocated, resourced and activated, and a separate set of tools and methods applied to the processes of recognising, interpreting and evaluating the cycles of activity through the genesis and resolution of the project.

On the individual level, then, networking, including the ICT reinforced format of communities of practice (COPs) will encourage the building of this capability, of a pool of practitioners able to work across systems and connect within the language of research, on issues and choices that confront regional VET providers.

Open-source methodology, termed an, "architecture of participation" by Tim O'Reilly (*http://www.wired.com/wired/archive/11.11/opensource_pr.html*), potentially provides mechanisms for breaking-down research projects amongst network members and distributing/sharing the load. Virtually a parallel-processing model, this could potentially mean that major research initiatives are able to be completed more quickly and with a broader relevance. Where might such an approach lead? To network members being more proactive with industry, and able to provide well-researched, well-developed solutions quickly and efficiently?

Network models

Independently, both of the authors have been working on systems to reinforce and refresh our work as researchers and as innovative practitioners. Mostly this has been through single-project collaborations. What we now recognize is that there are enormous potential benefits to be found in linking organizations of similar scope and intention on a more sustained basis as a resource to both learning/ professional practice, and to support a cross-institution basis for undertaking selected and opportunistic research and development projects.

In Victoria the benefits of such a linkage to regional TAFE organizations has been recognized in the provision of innovation funds to Wodonga TAFE to support a 3-year initiative. What is being developed is a 'two-level' approach to research and development addressing new, emerging and transitional industries and occupations in regional areas. The goal here is to develop a reliable and sustainable collaborative model of regional research, pooling and sharing data, systems and approaches, and setting up joint development projects with partners within the network.

One level of this project allows participants to invest in regionally targeted demographic, employment and development data to construct reliable projections of growth and change in the demand for VET services in this region, and to share this information with other network members (some but not all being regional Victorian TAFE Institutes), and with the Office of Training and Tertiary Education in Melbourne.

The other level of the project allows individual providers to carry out industry specific development projects that support teaching departments to anticipate and adjust to changing regional demands for skills in new or transitioning occupational areas. Wodonga TAFE has already targeted the areas of mechatronics and sustainable energy, and is planning to move on other areas of high local impact including water management, and environmental design and systems control.

Synergies exist for Wodonga and Hunter in terms of industry niche market areas, for instance Hunter is also pushing strongly into sustainable energy and environmental management, and both have strong food processing industries. An obvious benefit to participants in such a network is in information sharing related to such opportunities.

How will such networks operate? This is part of the discussion we plan for the conference presentation. At this point, though, it may help to look at some of Tom Bentley's thinking about networks, presented most recently at last year's NET*Working conference. Bentley indicates that networks are a necessary and valuable approach to linking people across organizational boundaries in ways that allow good practice to be shared, and fresh approaches to be found to the problems and opportunities that confront us in modern organizations.
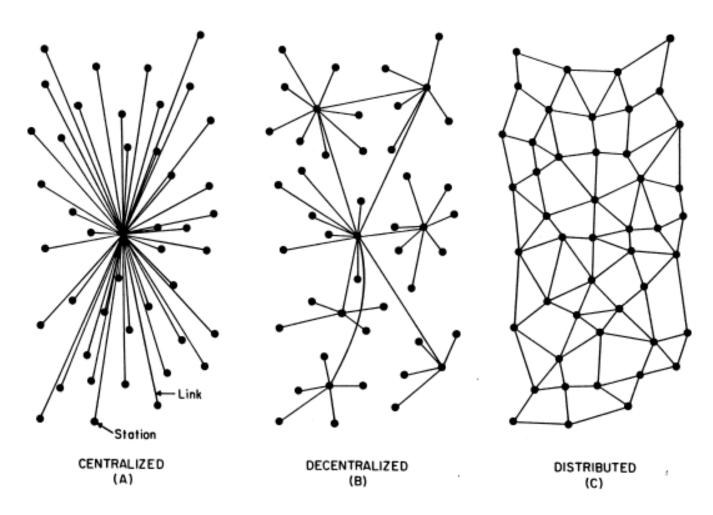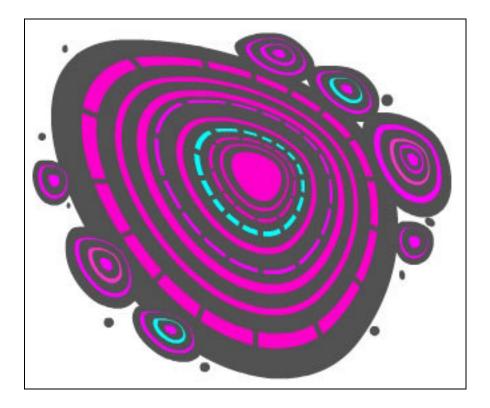

FIG. I — Centralized, Decentralized and Distributed Networks

Representations of the three types of network that Bentley identifies - centralized, decentralized and distributed - are shown at Figure 1. In advancing our case for the development of networked regional clusters we are keen to consider the operation, support needs and benefits of both decentralised and distributed network models. Clearly, part of the rationale of having regional research networks is as a counterpoint to existing centralized (metro-centric) systems. We can see local relationships or clusters at the end of the regional node points of the decentralized model that are interconnected in a more distributed fashion, with increasingly less dependence on one player controlling processes or communication.

Variations and extensions of such models may well provide more effective solutions. For instance combining an attractor-based model (such as the one based around the Hénon Strange Attractor, that Hunter uses within its *ITALIC* unit), with Bentley's decentralized model would provide both the connections/sharing required of the network and localized "points of presence" or critical mass so important for meeting organisational goals, etc.

This icon (or, *"the Blob",* as it is affectionately referred to by *ITALIC* staff) is a stylized representation of a Hénon Strange Attractor… the inference being that *ITALIC* acts as the *attractor* for innovative staff and projects, and further that momentum has built to such a point that smaller spin-out teaching and learning innovation groups are starting to emerge (as has already happened in three Hunter faculties).

Connecting the dots

Because the focus if this proposed approach is very much on sharing the benefits and opportunities that emerge locally, and building up from that level, we are keen to use the AVETRA conference, and opportunities beyond that, to workshop the approach, and encourage local ownership of options, within an emerging negotiated framework of communication and understanding. In this sense the development of this multi-layered network will be a creation of its members, with low reliance on system controls.

Having said that, there will clearly be a need for agreement around scope of action, leadership, and necessary infrastructure. Our respective organizations will need to be convinced of the workability and value of their participation, as will ANTA and state-based resourcers of VET research if they are to commit support. So there are state and national advocacy and development strategies to be considered, even as we work to refine the 'how' and 'what' of investing in research and development in this way. In so doing, we will enable regional communities and the VET providers that support them to have a sustained approach to the drive for innovation contemplated in the recent ANTA/ Reframing the Future report on *Emerging Futures*: *Innovation in Teaching and Learning in VET:*

> *The challenge for VET is to work with and manage its practitioners in such a way that innovation can be supported to ensure new or improved outcomes for VET's constituents, including VET organisations themselves.* (Mitchell et al, 2003, p.3)

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