

## Taking 'innovation' on the road

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# About the research



## *Taking 'innovation' on the road*

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Both Jane Figgis and Yvonne Hillier recently completed research reports for the National Centre for Vocational Education Research (NCVER) on trends in teaching and learning in vocational education and training (VET). Figgis focused on Australian initiatives within providers, while Hillier took a broader and international view. This work was the basis for a series of workshops in five jurisdictions.

This present report not only consolidates the perspectives of their earlier work but also develops the substantial common ground. Thus, it has become an additional stage in the research and offers a number of clear messages:

- ✧ Changing practice is neither a quick nor painless process. Moreover, an innovation does not have to be entirely new, just new to the team or institution attempting to implement it.
- ✧ Key to changing practice is accessing fresh ideas, which are often passed on through networks. However, those wanting to 'innovate' need to convince other colleagues of the need for change.
- ✧ Recasting practice and rethinking assumptions need to take account of deeply held values and experience. The most effective change may not be through radical reform, but through incremental improvements.
- ✧ Developing an organisational culture which encourages mainstream practitioners to reflect habitually on what they are doing and take action on what is needed, not a focus on 'star innovators'. Providing the resources to enable this is also important.

Those interested in this work are pointed to *Regenerating the Australian landscape of professional VET practice: Practitioner-driven changes to teaching and learning* by Jane Figgis and *Innovation in teaching and learning in vocational education and training: International perspectives* (a report and a podcast) by Yvonne Hillier.

Tom Karmel  
Managing Director, NCVER

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# Why this paper?

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This paper is based on a series of workshops about innovation in teaching and learning in vocational education and training (VET) which the authors conducted in March 2009. We had each recently completed a research report for the National Centre for Vocational Education Research (NCVER) on trends in teaching and learning in VET. Figgis looked at Australian examples; Hillier took an international perspective, which focused particularly on the United Kingdom and Europe. NCVER asked if we would conduct interactive workshops with VET practitioners to share what we had found and to seek feedback on those findings.<sup>1</sup> We were pleased to do this.

As it turned out, the workshops became an additional stage to the research. The responses to our presentations and to the exercises we had devised extended our initial understanding of innovation in major and unexpected ways.

In one exercise, workshop participants invented some innovative practices following a process we had developed from the initial research. The process begins with participants identifying a problem (a ‘niggle’), subsequently developing a workable solution (an innovation or ‘jiggle’) and then taking their innovation to ‘the market’. Talking with practitioners as they went through the process that we call ‘niggle-jiggle-squid’ allowed us to test it and the thinking that underpinned it. We will return later in the paper to explain why we have used the term ‘squid’ to describe the phase where the innovation is taken to the market.

We also asked every workshop participant to write on a post-it note one question they had about innovation in VET and, on another, what they would like to take from the workshop. Their answers were revealing and taught us more about the dimensions of innovation than we had anticipated. These forced us to think about exactly what is meant when practitioners are urged to ‘be innovative’, as they are urged to be in Australia and internationally. They raised questions about whether a change in practice has to be big and bold to qualify as ‘innovative’. Could continuous improvement serve just as well and without being as disruptive to current practice, especially since mainstream practitioners do not like major change?

This paper addresses some of the underlying questions that practitioners have about innovation. It includes a section on the tactics practitioners might use to start down the road to ‘being innovative’, since it was clear that people who attended the workshops were receptive to the possibility of changing their practice, at least to some extent. But they wanted advice on how to begin. It also includes a section where we speculate on the role(s) networking plays in innovation because it was obvious from both our original studies and the participants’ interest in the workshops that networking somehow is central to the process of innovation.

It concludes with some reflections on whether the time has come to shift the focus from leading-edge innovation and ‘natural’ innovators, to the environments in which mainstream VET

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<sup>1</sup> The workshops were jointly sponsored by NCVER and the local organisers: in Brisbane, Product Services in the Department of Education, Training and the Arts (DETA); in Melbourne, Victoria University’s Work-based Education Research Centre and the TAFE Development Centre; in Canberra, Canberra Institute of Technology’s Centre of Education Excellence; in Perth, VET Teaching and Learning in the Department of Education and Training (DET); in Geelong, the TAFE Development Centre; in Adelaide, Quality Directorate in the Department of Further Education, Employment, Science and Technology (DFEEST).

professionals work. If we want a VET sector where responsive, imaginative practice is the *norm*, then we need to consider the prompts, the support—the culture(s)—that convince and help well-meaning workaday practitioners to take bold and uncertain steps in their practice. To this end we introduce the idea of an ‘innovation ecology’ as a means for considering the ways an organisation’s workplace environment fosters, or fails to foster, an innovation mindset—the routine questioning of what and why I am doing what I am—on a broad scale.

The paper is structured in four sections:

- ✧ a comparison of the trends in innovation identified in the two research papers: Australia in one; the United Kingdom and Europe in the other
- ✧ the workshop task that practitioners undertook: to design and take an innovation to market
- ✧ the questions and hopes of workshop participants: hidden dimensions of *innovation* and of being *innovative*
- ✧ thoughts on expanding the pool of innovative VET practitioners.

# Trends in innovation: Comparing Australian and UK/European findings

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At the start of each workshop, Hillier and Figgis gave relatively formal separate presentations about their respective research findings. Since the full reports and overviews are available from the NCVER website, what we want to do here is to draw out similarities and comparisons between the Australian and international (primarily European Union and United Kingdom) findings, a comparison that has not previously been made. That the similarities are extensive is a little surprising—not because one would expect Australia to be significantly different from the rest of the Western world, one wouldn't—but because Figgis and Hillier tackled their projects from such different perspectives:

- ✧ Figgis began in the swamp of professional practice, thinking of Donald Schön's observation: that it is in the swampy lowlands of professional practice where people tackle the important, if messy, problems.<sup>2</sup> She decided that if that is where the important problems are, then that is where the important, revealing, answers were likely to be found.

So the way she set about doing her research was to contact the educational development units across a range of technical and further education (TAFE) institutes, the Australian Council for Private Education and Training, the Institute for Trade Skills Excellence, and knowledgeable colleagues and asked them to identify practitioners who were doing particularly interesting things in their work with learners. Those practitioners were interviewed about what they were doing, whether they had changed their practice and, if so, what they were responding to.

- ✧ Hillier, with her much wider brief, positioned herself high above the swamp, taking a bird's-eye view. Her starting point was the published research literature and, as she says, 'Regrettably, people who are finding new and different ways to teach and help people learn often do not publish what they are doing.' She did find web-based networks which provide resources for practitioners from which innovative practice can be inferred.

But rather than concentrate on what practitioners were doing, the higher perspective led her to the large-scale drivers for change in VET: global economic pressures, technological imperatives, industry change and increased demands from employers. The trends she observed were often generated from 'on high' by policy-makers in VET systems, as almost every country in the Organisation for Economic Co-operation and Development (OECD) is reviewing its programs and policies to try to ensure that their vocational education and training system keeps pace with the challenging rate of change in the wider world.

Thus, the two research reports start from almost exactly opposite positions: changes in VET practice instigated by practitioners in Australia and, from the other end, changes in policy instigated by governments in the United Kingdom and Europe. Yet they come to mirror one another closely. The convergences (and small divergences) are outlined in table 1.

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<sup>2</sup> Donald Schön in his 1987 book *Educating the reflective practitioner* pictured the topography of professional practice as a high, hard ground overlooking a swamp. The high ground is the place of theory and, one might add, of policy. The swampy lowland is where VET practitioners meet the learners. It is where the skills, knowledge, and attitudes they wish to see instilled in learners are (or are not) acquired.

**Table 1 Trends in innovative practice in VET**

International trends in innovative VET practice generated/encouraged by policy (Hillier findings)	Australian trends in innovative VET practice generated by practitioners (Figgis findings)
<p><i>Innovations in work-based teaching/learning</i></p> <ul style="list-style-type: none"> <li>✧ new skills academies that bring employers and practitioners together in a new training institution to raise standards, foster innovation, and spread good practice</li> <li>✧ brokerage used by governments to help employers find appropriate training for their employees</li> <li>✧ mentors in the workplace, using employees as ‘a new breed of VET teacher’, whose primary role is getting on with the job.</li> </ul>	<p><i>Innovations in work-based teaching/learning:</i></p> <ul style="list-style-type: none"> <li>✧ practitioners using people’s active, natural engagement in their work as the primary vehicle for credentialled (or credential-able) learning; delivering specified learning outcomes in a way that does not disrupt (or only very minimally disrupts) the regular pattern of work</li> <li>✧ a shift away from offering training solutions to working with employers on workforce development, which can include, for example, the recruitment and retention of workers or management processes as well as addressing employees’ skills and knowledge.</li> </ul>
<p><i>Exploiting new technology to facilitate learning</i></p> <ul style="list-style-type: none"> <li>✧ the use of e-learning through virtual learning environments and multimedia hardware and software prevalent across UK and Europe</li> <li>✧ mobile phones as a communication and recording device becoming more and more common, especially at the youth end of the VET client spectrum</li> <li>✧ simulations being used in particularly new and interesting ways</li> <li>✧ a keen interest internationally in e-portfolios and sharing developments.</li> </ul>	<p><i>Exploiting new technology to facilitate learning</i></p> <ul style="list-style-type: none"> <li>✧ at the cutting edge, practitioners exploring the ways a virtual world like Second Life, created by its millions of users and over which the instructor has no control, can be harnessed as a learning environment for the learning outcomes intended</li> <li>✧ mobile phones as a communication and recording (photos) tool particularly appropriate in the trades and with the youth end of the VET client spectrum</li> <li>✧ electronic log books, which require sophistication to develop, are very effective.</li> </ul>
<p><i>Professional development</i></p> <ul style="list-style-type: none"> <li>✧ provision of online resource banks for practitioners, some highly specialised, while others, like the National Learning Network in the UK, with 10 000 members, allow practitioners to review and share collections of resources assembled by other practitioners</li> <li>✧ Centres of Vocational Excellence to help practitioners deliver specialist work-related learning; 4000 of these CoVEs in UK</li> <li>✧ increasing trend for practitioners to prove the quality of the training they provide; in UK mandated 30 hours continuing professional development annually (managed by Institute for Learning).</li> </ul>	<p><i>Professional development</i></p> <ul style="list-style-type: none"> <li>✧ a distinct move away from traditional PD where practitioners leave their working environment to attend a workshop or similar; increasingly, educational development units within registered training organisations are going out to teaching teams to help them refine/improve their practice as they work with learners, face to face, online or in workplaces.</li> </ul>
<p><i>Networks in professional practice</i></p> <ul style="list-style-type: none"> <li>✧ the networks Hillier identifies sponsored by governments with the explicit goal of providing professional learning for practitioners; some of these do provide opportunities for practitioners to network directly with one another to refresh their ideas and knowledge.</li> </ul>	<p><i>Networks in professional practice</i></p> <ul style="list-style-type: none"> <li>✧ in the original research paper, these networks not described as a trend but nominated as an ‘attribute’ that nourished fresh thinking and action; all the innovative practitioners interviewed networked: <i>they</i> sought out colleagues (locally or internationally through the internet) and very actively stayed in regular communication. This linkage of like minds and interests is burgeoning with the ever-emerging tools. Twitter is a good example.</li> </ul>
<p><i>Assigning authentic learning tasks</i></p> <ul style="list-style-type: none"> <li>✧ the new employer-led skills academies and workplace learning automatically utilise authentic tasks as the basis for learning and skill development.</li> </ul>	<p><i>Assigning authentic learning tasks</i></p> <ul style="list-style-type: none"> <li>✧ these are complex and ill-defined tasks which require learners to make choices and do not lead to a single ‘right’ answer. They are attractive to many practitioners because they align well with the view that real learning—applicable learning—comes when the learner is actively involved <i>doing</i> something and, simultaneously, <i>thinking</i> about what he/she is doing.</li> </ul>
<p><i>Personalising learning</i></p> <ul style="list-style-type: none"> <li>✧ tools favouring validation of prior knowledge and experience widely available in Europe now; most further education and higher education institutions in the UK have processes for recognition of prior learning</li> <li>✧ a European study of VET innovation (not looking at policy particularly) reported that personalisation of learning according to individual needs/paths was a notable trend in Europe.</li> </ul>	<p><i>Personalising learning</i></p> <ul style="list-style-type: none"> <li>✧ policy drive to start VET training with a recognition of prior learning process; practitioners are finding this a ‘fairly momentous change’.</li> <li>✧ personalised support for learners through mentoring and coaching, but also (and more traditionally) by practitioners building quality relationships with their learners.</li> </ul>



International trends in innovative VET practice generated/encouraged by policy (Hillier findings)	Australian trends in innovative VET practice generated by practitioners (Figgis findings)
<p><i>Peer learning</i></p> <ul style="list-style-type: none"> <li>✧ creating environments for both purposeful and casual collaboration amongst learners, from online chat rooms, to week-long workshops</li> <li>✧ improving assessment through student involvement (see Nancy Falchikov's publications, for example, her essays in <i>Rethinking assessment in higher education: Learning for the longer term</i>, eds David Boud and Nancy Falchikov, Routledge, 2007).</li> </ul>	<p><i>Peer learning</i></p> <ul style="list-style-type: none"> <li>✧ creating environments for both purposeful and casual collaboration amongst learners, from online chat rooms, to week-long workshops</li> <li>✧ a notable trend is to make these peer groups diverse in terms of learner skill (certificate III students with diploma students) and background.</li> </ul>
<p><i>Need to cover multiple aims of education</i></p> <ul style="list-style-type: none"> <li>✧ self-realisation and personal development as well as economic, social and cultural goals</li> <li>✧ acknowledgement that key skills in the knowledge society include entrepreneurial skills.</li> </ul>	<p><i>Collaboration between higher education and further education:</i></p> <ul style="list-style-type: none"> <li>✧ there are examples of innovative programs delivering higher-level VET qualifications, but not enough to describe this as a discernible trend in Australian VET practice, although increasing higher-level skills is a priority of the Council of Australian Governments.</li> </ul>
<p><i>Collaboration between higher education and further education:</i></p> <ul style="list-style-type: none"> <li>✧ UK Foundation Degrees introduced in 2001 to provide higher-level technical and professional qualifications are an example; they are the equivalent of the first two years of a three-year full-time bachelor degree and have been designed jointly by employers, higher education and further education; delivered mainly in further education colleges.</li> </ul>	

It is worth noting that both Hillier and Figgis conclude by pointing out that informal learning is embedded in many of these trends *and* that it is central not only in the ways students/trainees are learning but also, if not more so, in the way practitioners are.

# The workshop task: Design and market an innovation

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Since each workshop was arranged and supported by the local agency, there were differences, especially in terms of time allocations, across the workshops. In some places we had an hour for the task, in which participants were asked to invent an innovation they believed would significantly improve teaching and learning. In others we had three hours. We obviously made some adjustments, depending on each instance, but the basic pattern was similar for all.

- ✧ Participants were asked to form into groups of three—we became quite strict about this. They were to talk about what was *niggling* them about the teaching/learning they were responsible for. They each had to ask themselves where improvements were warranted. Were they dissatisfied in any way, for example, with the learners' engagement? Their achievement? Did they want to make their provision more flexible? And so on.
- ✧ The trio then selected one of the three problems identified and set about devising an innovative solution to address it; we call this conversational phase *jiggling*.
- ✧ Each trio then paired up with another (so we had a group of six) to discuss their respective innovative solutions and to 'squid' those solutions. *Squidding*<sup>3</sup> is a form of critique where one looks for all the reasons why the innovation won't work, all the blockages to implementation. The concept originates from the way a squid defends itself by shooting a cloud of ink at the offending object and running away. Although this concept sounds negative, it is really important that a potential innovator recognises all the limits and barriers to the great idea.
- ✧ The six-member groups then selected one of the two innovations and prepared to take it to the market.
- ✧ Everyone re-assembled (the market) to listen as each group presented its innovation.

The process worked well. Participants thoughtfully, if sometimes noisily, worked through the various stages. A number said that they would like to duplicate the process back in their organisation.

The problems (the niggles) the groups chose in the various workshops were relatively similar. None were unfamiliar to the other participants, and the solutions were well received by 'the market'. A few examples suggest the kinds of possibilities people were interested in pursuing.

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<sup>3</sup> Lisa Smith, from the mind-workers team at Minds At Work, introduced the idea of 'squidding' at one of the workshops where she was also an invited speaker

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### **Buddies in cyberspace for students with literacy/language problems**

In the automotive area, a significant number of learners have problems with literacy, either as a result of school failure or a non-English speaking background. There are special programs for these students, but it is demoralising for these young men (they mostly are male) to have a tutor visible at their side. The innovators thought that accessing the tutor through the internet on a PDA would circumvent the shame factor. They pointed out that even people with poor literacy are comfortable communicating online—just look at Facebook. The ‘market’ suggested that creating a glossary with photos of the automotive gear would also help, with photography students taking the pictures.

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### **Sharing ideas across TAFE organisational boundaries**

Several innovations addressed a similar issue: a lack of sharing of the ideas and strategies their colleagues have devised for improving teaching/learning within and between large public providers. One innovative solution is to implement ‘job swaps’, whereby a practitioner spends six weeks in a different area of the institute observing and, as far as possible, lending a hand, as well as explaining what they do back in their own unit. This is a way around the problem that simply being told about someone else’s innovation (even with digital story-telling techniques) doesn’t help the interested practitioner to ‘really understand it, to know it, to see it in use and be able to take it back to their own area’. This kind of program would need to be supported and formalised, but the give-and-take benefits should be significant.

Another group came up with a barter system for fostering cross-fertilisation within and across institutes. They titled it ‘Emu Box’ because an emu sticks its neck out and isn’t afraid to step outside the box. There was an interest in all workshops in developing innovations that would help new practitioners.

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### **Trainees auditing their workplaces for safety/health hazards**

This innovation, which has actually been implemented, is designed to deliver a number of benefits. The trainees, apart from having to identify the hazards and photograph them, discuss what they have found with their peers and their employers. These trainees normally have the lowest status at their workplace, and being able to see changes made because of their advice gives them a real sense of empowerment. The trainer is taking the students’ findings to an industry forum. The biggest challenge is that not all employers like being audited.

Quite a number of innovations involved the development of authentic tasks: a simulated youth agency where university performing arts students become ‘clients’ for youth worker trainees; migrant women studying for a certificate in hospitality run a school canteen in an area where parents are unable to fulfil this role.

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The groups found the ‘squidding’ process—where they had to open up their ideas and assumptions to challenge—particularly valuable. They saw their initial ideas sharpen and improve through the exercise. And that was in less than an hour. It brought home the lesson that to change practice in any significant way is neither a quick nor painless process.

# Questions and hopes of workshop participants: Hidden dimensions of innovation and of being innovative

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A small exercise we conducted during the workshops has turned out to be surprisingly informative and, we believe, significant. In the interlude between the research presentations by Hillier and Figgis and the participants' task to identify and solve a teaching/learning problem, the participants were each given two post-it notes. On one they were to write a question that they had either about innovation in VET in general or specifically in relation to the two talks; and on the other, what they hoped to take away from the workshop.

If the interactive task was particularly useful and meaningful for the participants, the questions and hopes of the participants as indicated on the post-it notes were for us. They forced us to think seriously about some of the issues that lie submerged beneath the mantra of 'be innovative!' Although the majority of the workshop participants had accepted the imperative, they were uncertain about what 'being innovative' actually meant or how to go about it.

Their uncertainties, it seemed to us, might suggest ways the 'obedient middle', as the mainstream of VET practitioners has been labelled (not unkindly), might be encouraged/emboldened to be more innovative, more adaptive, responsive, inventive in their work with clients. These 'uncertainties' can be grouped under four themes and are discussed in the following four sections; each is 'defined' in the words of a representative practitioner's 'post-it note' comment:

- ✧ How do I know if I'm innovative enough?
- ✧ I want fresh ideas.
- ✧ I want to network.
- ✧ How can I get started, overcome the apathy of my colleagues?

## How do I know if I'm innovative enough?

This question, and similar ones, surprised us. Across the workshops there was a consistent query we simply had not expected to hear:

*What makes an innovative practice innovative?*

*How do you know if it's innovative?*

*What does innovation really mean?*

*What is different about innovative practice?*

*I want to know what innovative teaching is and if I'm doing any of it.*

Our first thought was that perhaps the puzzlement about innovation and being innovative might be a problem of semantics. Both 'innovation' and 'innovative' are used so much, venerated so highly and applied to so many different things that the words lose traction.

Would the puzzled VET practitioners' questions be answered if we were to unpack what the words imply in terms of what practitioners actually do? One could argue that innovation is the product of certain fundamental processes, for example:

- ✧ being responsive to perceived inadequacies in teaching (learner engagement) and learner outcomes
- ✧ being receptive to new ideas
- ✧ experimenting with and adapting good ideas (their own or others')
- ✧ being imaginative, inventive in trying to improve one's work
- ✧ being ambitious.

Finding concrete actions helps a bit in getting a handle on what innovative practitioners do. At least, it is easier to answer the question: 'How do I know I'm being responsive?' than 'How do I know I'm being innovative?' It is also easier to imagine practical activities called 'experimenting' and 'adapting' than an activity called 'innovating'.

Our initial puzzling about this question of 'How do I know if I'm innovative enough?' found its way into Figgis's presentation about innovation in teaching and learning in VET at two additional workshops. These were conducted in May at the Western Australian Department of Education and Training's annual training forum. The post-it note question for these two workshops was altered to ask: 'How do you know when you (or a colleague) are being innovative?'. Many participants found the question intriguing—they hadn't thought about it before and it captured their interest. Their answers fell into two groups:

- ✧ Those who know they are *doing* something different—something innovative—because they *feel* different; what one might call an emotional signal.

*I feel an energy to achieve—an increased energy.*

*I feel passionate.*

*I'm outside my comfort zone.*

*I feel inspired by the learners.*

*I feel empowered.*

*I have a sense of anticipation.*

*When my response is 'Hey, yeah!'*

*When you wished it was your idea.*

- ✧ Those who know they've been innovative because feedback from others tells them so, although the feedback signals themselves are more a reflection of client/colleague feelings than of objective metrics.

*Things are happening; there is an air of excitement.*

*Learners who were previously having difficulties begin to engage.*

*The smiles on their faces.*

*I've achieved the outcomes regardless of the hurdles.*

*The wow response from colleagues ... sparking others' interest.*

*When I/we are being innovative people, question it, resist it.*

These answers make 'being innovative' sound a lot like what the psychologist Csikszentmihalyi calls a *flow* activity. Flow happens when the challenge of an activity is precisely balanced against the 'stretch' required to achieve it. In our case the challenge is achieving effective teaching/learning/assessing. The stretch is meeting clients' needs. In our fairly extensive experience, the best practitioners almost always say that meeting those needs requires skill,

inventiveness, responsiveness, openness, experimentation—in a word, innovation. Csikszentmihalyi also describes flow activities as ‘optimal experiences’ and one gets the sense, just from the above comments, that meeting the challenge of fulfilling VET clients’ needs *is* an optimal experience.

What is also interesting is that when participants in all the workshops were asked what they associate with being innovative in teaching and learning in VET, they consistently came up with big changes: ‘stepping outside the square’; or doing something ‘unique’, ‘new’, ‘different’, ‘creative’, ‘fresh’, ‘clever’, ‘dynamic’, ‘not done before’. Yet what practitioners said in their post-it notes that they wanted from us were straightforward practical, applicable ideas, not major changes, as the next section explains.

## I want fresh ideas

By far, the largest number of post-it notes were concerned with ideas that participants could put into practice fairly readily. Some phrased this as a hope (‘I hope to find out how to ...’); others posed it as a question (‘How can I ...?’). Some just wanted to hear fresh ideas—‘light bulb moments’ is how a few expressed it—without any specific application in mind; wanting to be inspired in a general sort of way. Others knew exactly the kind of fresh ideas they wanted; for example, they wanted to be able to:

- ✧ incorporate e-learning: this was mentioned by a large number of people, some specified particular technologies like using mobile technology; quite a few wanted to know how to build relationships with students/clients in an online or i-phone environment
- ✧ engage/motivate learners, especially young learners, also a very consistent theme
- ✧ provide support for informal learning
- ✧ support learners in industry
- ✧ work with low-literacy learners
- ✧ teach differently when there is a lot of learning content (for example, scientific underpinning knowledge)
- ✧ generate innovative recognition of prior learning assessment procedures
- ✧ work with refugees
- ✧ create space for student reflection about their learning
- ✧ implement a selection process so that only appropriate students are admitted for training.

This raises the question: does a change in practice have to be big and bold, a fundamental shift in thinking/doing, to be labelled an innovation? Certainly those identified in our original research papers did involve a significant change in practice, where an old approach was discarded in favour of a significantly different one, or, in the international examples, the establishment of policies and institutions that heralded a break from past ways of fostering skill development (skill development both within industry and the further education sector itself). Indeed, those papers emphasised how large, and often difficult, the changes had been.

We know, however, that an innovation doesn’t have to be new to be an innovation or, rather, it doesn’t have to be new to the world. If it is new to the person or team trying to apply it for the first time, it is an innovation to them. We made a point, in fact, of saying so in our presentations: describing, for example, a scenario trying mobile technology or peer learning with your particular clients, then even though the practices may be ‘old hat’ to some, they will be new to your practice. And you will have to be innovative in adapting these ‘innovations’ to your own set of circumstances because they will inevitably require adaptation and experimentation.

There are advantages in thinking in terms of continuous improvement rather than aiming for disruptive innovation. Jasinski (2006) cites numerous research studies which found that new practices that promote ‘incremental change and add variety, choice and flexibility to existing practice are more likely to be adopted because dominant models are difficult to change without a concerted and sustained effort.’ In other words, if the new way is compatible with the practitioner’s existing values and past experiences, it is more likely to be tried. The practitioners in our workshops probably had in mind this sort of gentle evolutionary tone in their request for new ideas.

The downside of sliding into new approaches that are fairly easily applied is that they too readily become mere teaching tips. Teaching tips are fine in their place, but they take us unacceptably far from the fundamental reason for wanting innovation and from the trends we identified in our original research. The trends—the innovations—we identified were a response to profound changes in the world which the VET sector serves: changes in the global economy; in local industry; in communication and information technologies (and their use); and in the expectations of VET clients, both employers and learners. These changes cannot be addressed by adding a small tactic to a teaching/learning approach that has not been specifically designed or redesigned to address the new demands.

The areas where workshop participants wanted new ‘good ideas’ (see the list at the beginning of this section) are actually areas that have been improved only by a quite significant change in practice, although the participants might not have realised it when they were scribbling their post-it notes. Our research showed, for example, that engaging and motivating disengaged young learners or effectively incorporating e-learning or supporting informal learning, and so on down the list, *all* demanded changes that were tough enough on the practitioners to warrant the label ‘disruptive innovation’. Old ways had to be discarded. It was not—and is not—a matter of small adjustments to an old mindset.

So a fine balance needs to be found in steering the ‘obedient middle’ of VET practitioners—the practitioners who are not natural innovators in their teaching/training/assessing—to innovative practice. On the one hand, to meet the external challenges, innovations have to cause practitioners to seriously recast practice and rethink assumptions; on the other hand, the innovations they will actually consider have to feel compatible with their deep values and experience. Not an easy balance, to be sure, but there appears to be one mechanism that almost naturally creates that balance. It is networking amongst colleagues, the subject of the next section.

## I want to network

People often come to workshops because they want to network, and that undoubtedly was a motivation for some of the attendees at ours. But many participants claimed on their post-it notes that what they hoped most to take away from the workshop was the knowledge and incentive to participate in and/or build a network of like-minded colleagues. Sometimes the colleagues they had in mind were in their own institution or region, sometimes elsewhere in Australia, sometimes overseas.

Hillier’s research had documented the increase in the number and variety of networks which are intended, one way or another, to improve VET provision. These networks range from very informal through to the large purposely established and funded international networks like the European Commission’s Leonardo networks. Figgis found that in Australia networking with colleagues who are puzzling through similar issues in teaching/learning or in using particular resources was so integral to the way innovators worked that she described networking as an *attribute* of innovators.

The power of networks in the VET context is that they allow practitioners to genuinely share their experiences. One-way information about good practice (case studies, podcasts etc.) are useful up to

a point, although both Hillier and Figgis found that these stories can be so skewed towards the ‘good news’ that they need to be treated with a healthy dose of scepticism. The real weakness, however, is simply that they are one-way. The person receiving the information has no opportunity to ask questions, seek clarification, or get advice. Networks, both virtual and face-to-face, allow two-way conversations.

It needs to be said that both creating and maintaining these networks requires real effort and sustained attention. Professional networks are often established through funded projects, sometimes by a dedicated individual or small group. While some vibrant networks may appear to look after themselves, they rarely do. These networks are dynamic and changing ‘beasts’, requiring ongoing monitoring and (subtle) direction/leadership. Indeed, the moment a network loses momentum or begins to stagnate, it stops being effective or useful and fades away of its own accord.

From a theoretical perspective, one would say the power of professional networks lies in their ability to facilitate the transfer of tacit knowledge and thereby develop *socially constructed practice*. Colleagues who have come to trust one another through the network’s ongoing ‘conversation’ gradually reshape their practice. What is interesting from the perspective of encouraging innovative practice amongst hesitant practitioners is the way the network may provide a kind of equilibrium for the would-be innovator between the threat of disruptive change and the desire to improve and make a change.

A network allows experienced innovators and their less certain counterparts to negotiate—a delicate re-balancing of threat and courage, although ‘negotiate’ is too formal a word for the informal back-and-forth exploration and even the jovial ‘well, what are you going to do about it?’ that characterises the best networks. For some, participation in a network is enough to add one new practitioner to the ‘innovator’ column, but the workshop participants themselves recognised that something further may be required. Many of their post-it notes requested advice on overcoming barriers to innovative practice, which is the subject of the next section.

## How can I get started, overcome the apathy of my colleagues?

There are undoubtedly barriers to innovation in the VET sector and workshop participants pointed to some of these by asking whether there were ways around:

- ✧ the lack of time (mentioned a lot, of course)
- ✧ the difficulty of being innovative in the face of tight budgets and limited resources
- ✧ the rigidities imposed by Australian Quality Training Framework compliance and other system requirements.

But, just as with the Australian innovators interviewed during the original research, there was much less dwelling on the factors that interfere with being innovative and far more interest in beginning the innovation process itself. Given that the workshop participants came because they were interested in how they might work differently with their clients, their interest in getting on with the task and not worrying unduly about the constraints were to be expected. Perhaps they intuitively understood, too, that once started, the energy and determination to see it through would naturally kick in.

Our original papers did contain hints about ‘getting started’ but the information wasn’t pulled together under that heading. Therefore, it may be useful here to outline briefly some of the tools an interested practitioner or, better, an interested team of practitioners, might use to get their innovative juices flowing.



## Niggle, jiggle, squid

As explained earlier, this is the technique we used in the workshops and the one that most closely corresponds to the way the original innovators proceeded. It appears to be extremely powerful and certainly the one we recommend to start improving one's practice.

The first step is to identify a significant problem or concern, something you would really like to see changed or improved: the niggle. If by any chance you have trouble identifying something that could be improved, then ask your clients—your learners or their (potential) employers—what they think might be improved. In the trades area, the star rating process established by the Institute of Trade Skills Excellence<sup>4</sup> provides an insightful, and tested, guide to the kinds of questions to ask of oneself and of others.

'Jiggling' is the phase of conversational exploration. It's what practitioners and managers do all the time: a small group sits down with a task and some vague ideas as to what *might* be done. Talking about the possibilities, typically over many sessions, allows these ideas to develop. We have come to see this as the group functioning almost as a single brain: making synaptic connections, strengthening particular neuronal pathways, discarding others. It seems almost inevitable that, when a few well-meaning people get together and 'pool their ignorance', imaginative and productive ideas emerge.

'Squidding', then, is to think of all the reasons why the bright idea—the innovation—which emerged from the pool won't work. This is critical because implementing a significant new approach is never without its hurdles and even setbacks. From the start it is important to be aware of as many of these as possible. In our experience, and the workshops demonstrated this too, as proponents of an innovation think through how to address the 'squids', the innovation gets sharper and better.

The secret to the success of this niggle-jiggle-squid approach, it seems to us, is entering into it confident that, however intractable the problem may appear, it can be solved. In the workshops, participants had no trouble coming up with niggles, but often they'd then get stuck. 'The students are apathetic,' was one example, as if that were enough to end the whole exercise. Yet that was exactly the niggle that had triggered some of the most interesting new approaches to teaching and learning that we found in our research—approaches that successfully engaged students who had been apathetic, sloppy and/or ill-prepared for their course. The point of squidding, of identifying the difficulties, is exactly to keep going until they have been dealt with, not to give up because there are real difficulties.

## Use the Brookfield model of reflection<sup>5</sup>

This popular approach invites people to think about their practice (and values) from various perspectives. How does the learner perceive what you do? How do your colleagues? Employers? What does your work look like through the lens of theory? But the real strength of the Brookfield model is that it is concerned less about critiquing performance than it is about identifying the assumptions underlying that performance.

Interestingly, in this approach to reflection the goal is not necessarily to change practice. It is to get in touch with 'the inner you'—to reflect on how your assumptions *and feelings* affect your practice. While this might sound a little less threatening than critiquing performance, those who use it say it is not. Peeling through layers of assumptions (for example, about apathetic students) may tell you things about yourself that you may not much like.

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<sup>4</sup> <<http://www.tradeskills.com.au/>>

<sup>5</sup> Many university websites describe and explain Stephen Brookfield's 1995 model. See, for example, <<http://cstl.syr.edu/cstl2/home/Teaching%20Support/Teaching%20Practice/141000.htm>>.

## Talk to employers and industry bodies

Both ‘niggle, jiggle and squid’ and the Brookfield model mention employers as a perspective to recognise in your work, which may suggest areas where innovation is required. Because learning at work and workforce development (a step beyond the provision of training solutions) have increasingly become the focus of VET, a useful start on the journey to innovation is a consideration of the strategies and operations of various enterprises. In the United Kingdom, for example, the various Industry Skills Academies may be the starting point. It makes sense also to look at what practitioners already working ‘on the shop floor’ are struggling with or have struggled with. From all accounts, training, learning and assessing during the natural flow of work present challenges that cry out for innovative solutions.

## Establish an ‘action learning set’

An ‘action learning set’<sup>6</sup> bears some relation both to the Brookfield model (insofar as it involves guided reflection) and to ‘niggle, jiggle and squid’ (in using a real problem or project as its starting point). It is, however, quite a formal process, designed for a work group, which becomes a ‘learning set’. The set meets regularly under the guidance of a trained facilitator. It is based on the principles of action learning, which means that, although finding solutions to the original problem (in our case developing an innovation) is important, the individuals’ professional development is an equal focus.

## Explore the abundant materials, case studies etc. on the internet

If there is a problem with looking on the internet for ideas about what you might do differently, it is that there is just so much there. These resource banks have been one of the principal mechanisms for fostering innovation in vocational education and training in the United Kingdom and Europe, and Hillier’s paper provides an annotated list of useful international websites. One of the outstanding ones concerns mobile technologies, the Mobile Learning Network (<<http://www.molenet.org.uk/>>) and its parent site, the Learning Skills Network (<<http://www.lsneducation.org.uk/>>). In Australia, Education Network Australia (<[edna.com.au](http://edna.com.au/)>) and the Australian Flexible Learning Framework are good starting points, but there are many others.

We would suggest that, if you find something that interests you, don’t just read about it, contact the person—create what we might call a micro- or mini-network. It will have the advantages of two-way conversation and the sharing of tacit knowledge. And get past the tendency for these stories to be written as overly simplified good news stories.

## Investigate emerging technologies

There is a healthy scepticism about technophiles who play endlessly with ever-emerging technologies and tools. The ones we have met, however, do not apply these tools thoughtlessly, although they do spend a lot of time playing first. Rather, the e-learning innovators identified in our research apply the tools with clear ideas in mind about how they might improve teaching and learning. They closely observe what works and what doesn’t and make adjustments (with their IT specialists if necessary). The most pedestrian use of new technologies is often made by practitioners who are not interested in the technologies and who put components of their provision online simply because they feel it’s expected of them.

The potential for e-learning to enhance learning and engagement is so great that starting with a particular technology and thinking imaginatively how it might be put to work in your circumstances is not a bad way of getting started.

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<sup>6</sup> See, for example, <<http://www.learningplace.com.au/deliver/content.asp?pid=21059>> or <http://www.actionlearningassociates.co.uk/>.

## Find a mentor

Both overseas and in Australia, governments and educational agencies have been concerned about the capabilities of their VET workforce and have developed policies and programs to bolster capability. Many of these programs include mentoring in one form or another by ‘champions’ of particular innovations, for example, e-learning champions and toolbox champions supported by the Australian Flexible Learning Framework; change agents supported by Reframing the Future; and through the Institute for Learning in the United Kingdom. Most, if not all, TAFE institutes and some large private training providers have in-house education development units whose task is to work with practitioners to enhance their skills. These units are increasingly ‘embedding’ themselves for longer or shorter periods within teaching/training program units. That kind of ongoing support while practitioners try new approaches is not always called mentoring, but the fundamental mentoring principle (a more experienced person helping a less experienced person to achieve their goals) is being adopted with increasing frequency and pleasing results.

Getting started is, obviously, a crucial step but, as one workshop participant explained on his/her post-it note, ‘having an innovative idea is one per cent of the task; effective implementation is the other 99 per cent’. The one barrier to effective implementation that participants did consistently mention was the problem of recalcitrant colleagues—colleagues not open to innovation:

*How do you stretch the horizons of ‘tired’ teachers?*

*How do you inspire staff to be a little discontent with what they are currently doing?*

*How do you innovate in a very traditional and structured training culture?*

*How can I change some practice in a group of teachers who constantly complain about the difficulty of engaging students?*

*How do you encourage your group of lecturers to work together?*

*How do we get teachers to take seriously the concept(s) of informal and experiential learning that they do not deliver?*

The question of sparking an interest in innovation and change amongst less motivated or, indeed, apathetic practitioners introduces an aspect of innovation that takes us beyond the original research brief. Our brief was to identify broad policies and programs internationally and in Australia to find practitioners who had summoned the energy, imagination and perseverance to introduce challenging and significant change to their practice. Those innovators were, by and large, exceptional educators/trainers.

We have come to the view that looking at exceptional practitioners and natural innovators does not tell us much about igniting an appetite (and capacity) for innovation amongst mainstream practitioners. Nonetheless, the external pressures on the VET sector in Australia and elsewhere mean that ordinary practitioners now need to be more responsive and imaginative than was required in more stable times—more stable economically, technologically and socially. The sector will flourish here and overseas when innovation is the norm, not the exception. Advancing to that goal is the subject of the next (and final) section of this paper.

# Expanding the pool of innovative VET practitioners

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In our original research, practitioners identified as being innovative by their colleagues had mostly made quite major changes to their teaching/training, so when workshop participants asked us to define what ‘really is innovative’, the question reflected their concern—their worry—about just how bold, how different, how new a change they would have to make to their practice if they were to be called ‘innovative’.

We have thought carefully about this and have come to the conclusion that, yes, boldness is required; taking risks is required; challenging the norm is required. But the boldness, risk and challenge are not necessarily in what practitioners end up *doing* to develop the skill/knowledge/engagement of their learners—that can turn out to be very similar to what other practitioners are doing with their learners. Where boldness, risk and challenge are required is in taking the first step.

That first step is asking oneself whether I am delivering the results I and others *should* expect; in justifying exactly why I am doing X or Y; in honestly thinking through the assumptions I am making about the learners and the world of work they are stepping into. That kind of fearless professional reflection is not easy. No one goes to work intending to do a bad job. Most, in fact, think they are already doing the best they can. So it is hard to think about how to do it better. Ways to get started on this task of reflection—of finding niggles—were outlined in the preceding section. The point is: this is the crucial step.

As long as VET professionals seriously, and habitually, scrutinise their own practice the sector will be dynamic and effective. It may well be that the solutions practitioners come up with to improve the outcomes of specific groups or to meet the needs of a particular employer may end up looking a lot like what another practitioner is already doing. The solution may entail developing authentic tasks or using e-portfolios or peer learning—solutions that are no longer brand spanking new. But practitioners applying these approaches to their learners in their particular situation will be new to them. It is a fresh approach for them *in response to a need they have discerned*. It will be an innovation for them, and that is what counts, not whether it is absolutely new to the VET sector.

What will it take for this habitual reflection—what Hillier has also called ‘gentle incrementalism’—to permeate VET culture? It will require, first, that we stop focusing on the elite band of innovators and what they have done. Their new practices may be a source of ideas for others and a confidence booster, but simply trying to imitate these practices is going to refresh neither the sector nor the individuals. What is going to achieve sustained improvement is the niggling (or whatever mechanism is used to prompt thinking that change might be required)—the first step—not the last step of implementing a new practice, as important and fraught as that can be.

The workshops gave us some insight into practitioners who were interested in change but who had not, by and large, taken resolute steps in new directions. The boost they needed is one that could, and should, come from, and be an integral part of, their workplace environment. Working in an environment that values and supports fresh thinking and honest reappraisal—indeed, expects both—would see the workshop participants take resolute steps.

Describing an organisation as having an *innovation ecology*, an environment which encourages bold thinking and enables consequent action, has been used to good effect in business (Australian

Business Foundation 2008). It should apply equally productively to VET organisations. How well or poorly does the organisation foster an innovative mindset? What ingredients have been introduced to nourish innovation? Who or what is playing the role of the sun (for light and energy)? What range of creatures inhabit the ecosystem? What's the climate like? And so on. The organisational ecology in which VET practitioners work is a critical determinant in whether they will ask themselves the hard questions and take bold steps to change.

Unfortunately, our original research aimed both above and below the organisational level: the international study focused on policies and programs generated at government or regional levels; the Australian study focused on practitioner teams already working innovatively in the swamp. There is, however, research that does explore ways by which registered training organisations might encourage an innovative mindset in the 'obedient middle' of mainstream VET practitioners (including permanent, casual and sessional). Jasinski (2006) not only discusses ingredients that would build an innovation ecology but provides templates and tools for VET organisations wishing to do so, although she doesn't use the language of ecology. Challenger TAFE in Western Australia is an example of an organisation that has systematically set about changing the culture and mindset of its staff, and has published useful documents about their effort.<sup>7</sup>

Saying that the organisation plays a central role is not to absolve practitioners of taking responsibility for helping to build an ambience that honours critical reflection. Organisations, after all, are made up of all the individuals involved. David Hargreaves (2003) talks about the various forms of capital in an educational organisation: material, intellectual, organisational, and social capital. He identifies the last—social capital or trust—as the essential component of an innovation ecology (what he calls an innovation network). Similarly, the consistent message in the essays commissioned by the Australian Business Foundation (2008) is that 'human interaction' is the prime factor in generating and sustaining an innovative organisation. So everyone has a part to play.

We have certainly seen in our exemplars of innovation the central importance of trust—social capital, 'human interaction'—in the relationships established within innovative practitioner teams, between practitioners and employers, and amongst practitioners in professional networks. The networks discussed earlier that work because they help uncertain practitioners overcome their hesitation to abandon old thinking could be described as innovation ecologies in their own right. We do know, however, from ours and others' studies that building these relationships takes time and skill. There are no shortcuts and no fail-safe mechanisms in building trust. Nonetheless, the relationships and trust are critical—as workshop participants also fully understood and appreciated.

If we had to summarise the many things about meeting the needs of VET clients through innovative teaching and learning that we have learned through our original research and subsequently through the workshops, we would simply point out that VET practitioners work in a complex and dynamic system. Practitioners, individually or in their teaching/training units, can take the lead, devise and implement exciting innovations and influence others (inside and outside their organisations). But, in turn, their organisation, their workplace, profoundly shapes the ability and motivation of practitioners—especially the mainstream 'obedient middle' range of practitioners—to seriously reflect on shortcomings and to grasp opportunities for change.

There is a quote attributed to the writer Marilyn Ferguson, author of the *Aquarian conspiracy* and publisher of the well-regarded *Brain/Mind Bulletin*, which reflects this strange shifting balance about who to influence and how to influence, in our case, professional VET colleagues:

No one can persuade another to change. Each of us guards a gate of change that can only be opened from the inside. We cannot open the gate of another, either by argument or emotional appeal.

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<sup>7</sup> See, for example, Challenger TAFE 4 paradigm approach and Challenger impact model, available at <<http://www.challengertafe.wa.edu.au/Aboutus/publications/Pages/Publications.aspx>>.

Yet through sustained collegial networks—micro, small and large; local and dispersed—and through an ‘innovation ecology’ mutually created by the inhabitants of the organisation/enterprise, change and the motivation to change can be effected. Our research does point to the need for change in VET in Australia and internationally, while also identifying many examples in policy and practice where innovation is underway and is helping to lead the way. What is required now are encouraged, confident, energised followers.

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