

Methods and Instruments for the Evaluation and Monitoring of VET Systems

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Editor's Foreword

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Abstract

For two decades there have been calls for the Australian vocational education and training (VET) system to be more efficient, responsive, industry-driven, and simplified. The responses from governments of all political persuasions have generally been incremental and within the traditional VET rubric of supplying skills to the labour market. In 2002, the State of Queensland began experimenting with different models of interaction with the VET system and its stakeholders. Since then a range of alternative industry engagement mechanisms has been trialled within an integrated approach to skills formation spanning a number of policy areas. In general, and in speculation about possible future VET systems, each of these mechanisms was initially predicated on tracking of emerging economic, social and environmental challenges faced by western democracies. From these initial experiments, Queensland has been researching an alternative holistic VET system model for 2020 which hopefully will be more able to cope with the changing nature of occupations, work, and the requirements of a carbon-constrained economy. This paper discusses two early drafts of some tools and techniques being considered for managing and monitoring the system: (i) Monitoring and Performance Framework and (ii) Capability Scales.

Foreword by Ewart Keep, Deputy Director SKOPE

One element of SKOPE's current research programme is concerned with how the education and training system of the future might be configured and managed. Over the last two decades in England the performance management systems for education and training have come to revolve around top-down, nationally-determined targets that have related to:

- the proportion of a given population (usually an age cohort) participating in some form of education and training activity
- a target for numbers involved in a specific programme (e.g. apprenticeship places)
- a target for the proportion of persons achieving a particular level of qualification (as in the Leitch Review's targets to make the UK 'world class' in skills at every different level).

As the UK Commission for Employment and Skills (UKCES) and others have argued, this approach to gauging the performance of the education and training system has serious limitations, and the time has arrived for new thinking about how performance is defined and then measured. In part, this reflects a shift in skills strategies that is starting to produce different policy objectives that generate new definitions of what might constitute success, which in turn create the need for fresh approaches to performance management. For example, if improved skill utilisation is important to policy makers, then measures of qualification stocks and student participation are of very limited value in telling us how the policy is or is not working. As Jonathan Payne demonstrated in a recent SKOPE Issues Paper, thinking through how skill utilisation might be measured and then assembling reliable sources of data from which key performance indicators could be distilled is far from simple.

This SKOPE Research Paper contains the fruits of thinking that has been taking place within the state government of Queensland in Australia. It grows out of Queensland's experience of running a set of skill ecosystem projects and the state government's wider realisation that traditional performance measures were unsuited to recording the success or failure of new kinds of policy interactions and objectives. Its lead author – Noela Eddington – is a civil servant in the Queensland government, and has played a central role in helping run the ecosystem projects and in thinking through their implications for wider policy. She has also been instrumental in helping SKOPE undertake research on the skill ecosystem approach in Australia. This

research paper was first presented at an international conference on evaluating education and training systems in December 2009 that was organised by BiBB (the German Federal Institute for Vocational Education and Training). The paper was extremely well-received. It both raises a number of key issues about education and training systems management in the 21st century and suggests some avenues through which progress could be made. SKOPE is publishing it in the hope that this will help it reach a wider UK audience.

Introduction

Since 2002, research in Queensland, Australia, has been questioning the assumption that a highly qualified workforce alone is sufficient to increase profitability, productivity and economic growth. It is contended that:

the full contribution of a skilled workforce to the economy, industry sectors and individual firms is not realised unless employers cogently address demand-side factors. Such demand-side activity on the part of employers must include responsibility for integrating attraction, development, effective utilisation and retention of skills into their people management practices within the context of a sustainable business strategy.

In trialling this contention, skills, work and industry development policies are being integrated in a pilot programme in the manufacturing sector. This policy integration is, in effect, relying on collaborative governance which is actively testing the capability of the bureaucracy to operate in networks. The pilot is considering how industry, work and skills policy might be designed to support a 'high skill equilibrium' capable of providing decent and sustainable work within a just transition under conditions of carbon-constraint.

Over the seven years from 2002, Queensland has been experimenting with skill ecosystems, and other new forms of industry responsibility for skills, and has also piloted public policy integration of various kinds. Some policy thinkers now believe that a VET system model for 2020 (VET 2020) must be closely integrated with sectoral and regional responses to changing economic conditions. The *Industry Skills Policy* framework must encourage all industry sectors and regions to manage sustainable skill ecosystems. Skills, as lower order issues, must be aligned to sustainable industry strategies and good workplace management practices.

The current stage of the Queensland collaborative experiments involves demonstrating effective translation of skills into productive outcomes, and identifying roles, responsibilities, systems and processes that underpin sustainable production and good jobs. The monitoring and evaluation process has provided insights for questioning the rationale and practice of traditional skills policy. We are now seeking to monitor the impact of integrated interventions on business outcomes, as opposed to measurements based solely on individual programme outputs such as qualifications.

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As a result of these experiments, the Queensland research favours a *Dual Skills Policy Framework* with two distinct strands: *Industry Skills Policy* and *Skills Policy for Individuals*. This paper is primarily about the former, and more specifically about *Industry and Government Capability Scales* and a *Monitoring and Reporting Framework for Industry Skills Policy* in a carbon-constrained economy. The term 'industry' in the context of the emerging *Industry Skills Policy* also refers to and incorporates regions and communities, as it applies equally to the skill ecosystems in these contexts.

Targeted Problem

The targeted problems of the on-going Queensland research and action learning processes are (i) elimination of wastage in a supply-driven VET system and (ii) optimising the value of skills to industry and the economy. We believe that, within the Queensland context: (i) centralised processes based on workforce planning, forecasting and identifying future skills needs alone are unreliable and insufficient, and (ii) skills supply focused systems abrogate industry responsibility to maintain skill attraction, development, effective utilisation and retention processes (Queensland DETA 2008).

Queensland's proposed *Industry Skills Policy* is aimed at leveraging industry ownership and responsibility for sustainable skill ecosystems within sustainable businesses. Monitoring and evaluation within this context is complex and difficult for VET agencies because it requires a different set of indicators. In addition to measuring quantitative data on skills supply, we are assessing the impact of multiple programmes on productivity, profitability and employment issues in a people and planet context. We contend that qualification levels alone are not a sufficient indicator of the value of skills to an economy (Scottish Government 2007, UK Commission for Employment and Skills 2009).

Methodology

Queensland operates within a complex Australian VET system which incorporates (i) shared responsibility between the national and state governments; (ii) regulated public VET systems; (iii) a national qualifications framework; (iv) competency based

training with some 1400 national qualifications; (v) registered training organisations operating in a 'training market' and (vi) regulated occupations in the trades.

Effecting significant change quickly within the entrenched VET system is well nigh impossible in Australia because of the deliverables imposed on the states in return for part funding of training initiatives. Accordingly, Queensland has been addressing this impasse by making small changes to components of the VET System on an incremental and politically acceptable basis. At the same time, policy strategists have been developing a new holistic mental model for VET to guide the general direction of incremental action learning based initiatives over time. Without this holistic vision for VET 2020, there is a tendency for subsequent administrators to continually meddle at the edges of the existing system (and, as noted by Keep 2009, all the worthwhile changes at the edges have been made to the existing System).

The holistic model for VET 2020 covers the following components of the VET System: role and purpose of VET, VET institutions, training product, pedagogy and professionalism, linkages, pathways, governance, funding, culture, regulation, accountability and impacts. The focus is on designing each of these components and combining them into a VET System 'jigsaw' in such a way so as to ensure that the integrated drivers of the System support the stated role and purpose of the VET programme¹. This holistic model is being researched and framed incrementally in line with the outcomes of a *Ministerial Forum on VET of the Future* held in Queensland in 2008 (Queensland DETA 2008). It is also heavily influenced by the authors' involvement with international researchers working in a range of other contemporary economic, social and environmental issues such as education, sustainability, climate change, workforce development, consumption, production, and equity.

In relation to action research initiatives related to Queensland's emerging *Industry Skills Policy*, we now have the benefit of experience with excess of 52 skill ecosystems, and 16 industry centres of excellence and other industry/government alliances and arrangements linking skills to workplace management and sustainable strategic business directions. These integrated policy regimes are increasingly removing the need for forecasting and planning for skills in a labour market context where supply and demand dominate the rhetoric. Instead, the State's new forms of

¹ We would argue that the role and purpose of VET should be measured at four levels, namely the economy, industry, enterprises and individuals but within the general context of sustainable development.

industry engagement allow the contextualisation of skills within a sustainable business development debate. That is, skills can be contextualised and managed in a realistic context where they are utilised, influenced and owned by industry, regions or communities (all of which can develop sustainable skill ecosystems able to respond as economic and social issues vary.) We (the authors) also believe that this industry development approach is the key to stimulating employer demand for quality jobs, thereby creating a demand-pull for skills. As industry capacity develops in this regard, skills are more likely to be available where they are needed and be more effectively utilised.

Queensland's current action research is exploring policy coordination in the manufacturing sector. It is known as the *Workplace Partnership and Productivity* (WP&P) pilot. Three agencies have combined their industry development programmes to support a sustainable manufacturing sector. Industry development, work and skills policies are being coordinated to deliver an holistic action plan that industry undertakes to implement. Business reviews, sustainable business strategies, efficient operating systems and effective people management in safe and decent 'green jobs' are being encouraged through 'partnership' negotiating processes. The Australian industrial relations environment has a recent history of excluding unions from workplace negotiations. This heritage of exclusion is currently being dismantled and one aim of the current WP&P pilot is to demonstrate improved business performance and productivity through partnerships as reported by Black and Lynch (2003, 2004).

The integrated government activity in the WP&P pilot is challenging to public agencies which are generally inexperienced in operating within client driven networks. Our research suggests that government agencies are accustomed to working in *state* and *market* modes of governance where the drivers focus on numbers/quantity and efficiency. However, *network* modes of governance in coordinated policy scenarios are difficult for government agencies (Keast *et al* 2004). Networks are based on relationships, a collective sense of mutual responsibility, trust and power sharing: consequently, agency accountability in networks needs careful mentoring and attention. We (as authors) go so far as to suggest that government and industry capability to operate effectively in networks needs to be developed, and *Capability Scales* to identify behaviours requisite to operating within networks are being constructed.

In addition, the action research being undertaken in the WP&P pilot also seeks to refine (i) a *Monitoring and Performance Framework* for the holistic 'industry development' process and (ii) *Industry and Government Capability Scales*. These are discussed in the next section.

Results and Perspectives for Further Development

For the Described Instruments

• Monitoring and Evaluation Framework

The draft *Monitoring and Evaluation Framework* presented here is intended to provide a starting point for negotiations on a specific framework for the industry, region or community involved. It attempts to provide indicators that are acceptable across all three governance modes for baseline activity, facilitative activities and programme effect data. The baseline data (see Table 1) will support the graphing of trend lines in facilitative and effect data as the pilot progresses. The facilitative data is intended to measure a range of context, process and learning dimensions such as (i) how well the stakeholders are collaborating, (ii) their developing capability levels and (iii) learning from the processes. Effect data will enable the development of trend lines resulting from the integrated service delivery process on outputs, outcomes, impacts and business performance. Table 1 contains examples only of the type of indicators and measures that might be agreed upon by stakeholders in the Manufacturing WP&P pilot.

The Framework is being trialled in 2010 - 2011 in the WP&P pilot. Industry, government and unions will negotiate a set of indicators in each of the three categories that is relevant to the specific skill ecosystem. Quantitative data and qualitative data in the form of stories will be mixed and matched to provide both industry and government with rich information on baseline, facilitative and impact data. Specific indicators will be developed through the 'partnership' process being used in this pilot but could equally be developed using alliancing principles or some other form of collaborative arrangement. The indicators will generally reflect the issues for improvement identified in business and people management diagnostic processes (see Table 1).

	Indicator Type	Function	Indicator Example	Measures
	Baseline	Starting point variable:		
	Data	Economic (i) Gross product	 Gross product: the amount of revenue produced by the Queensland manufacturing and engineering sector 	 \$ contributed to GSP by the manufacturing sector.
		<u>People</u> (ii) Labour productivity	(ii) Revenue per full time equivalent (FTE) in the sector	(ii) \$ revenue per FTE in the sector.
STATUS		(iii) Utilisation	 (iii) People Indicators: Employee turnover Extent of use of skills (employer and employee perspective) Job quality Inclusiveness / partnerships 	 (iii) People measures: Turnover rate per calendar year. Story: Describing how the sector creates 'decent' work, inclusive processes, utilises knowledge and skills to enhance competitive advantage, and skill usage perspective of employers and employees.
		(iv) Qualifications <i>Planet</i> (v) Emissions	 (iv) Qualifications Managers, professionals Skilled trades Intermediate skilled workers Elementary skilled workers (v) Carbon footprint 	(iv) Qualification profile for Managers, professionals Skilled trades Intermediate skilled workers Elementary skilled workers (v) Primary carbon footprint trends, adaptation /
	Context	To identify the existence of industry <u>support systems</u>	Existence of industry support programs for: (i) Productivity, new technologies, systems and processes (ii) Business management (iii) Sustainability and eco-efficiency	 mitigation strategies Existence of government publication identifying all industry support programs for the production sector
		To monitor change in policy	 (iv) Capabilities and options for diversification, trade etc Demonstration of agency policy 	Story: Describing the experience with
		context To monitor clarity of role and responsibility	 coordination. Roles, responsibilities, expectations, partnerships defined for all partners including unions, industry, government, intermediaries, TAFE colleges and the like. 	collaborative governance Negotiated agreement on these issues.
FACILITATIVE	Process	To identify if: (i) adequate analysis of skills issues and workforce issues has been undertaken	(i) People and Leadership workplace development plan (with milestones) to support operational and business plans, covering issues such as partnership approach, work/life balance, health and safety, formal and informal skill formation, job design; clear identification of leveraging activity and links to existing services.	(i) People and Leadership Plan (with milestones) integrated with operational and business plan.
		 sustainable workplace management practices have been implemented using partnership principles to deal with attraction, development, effective utilisation and retention. 	(ii) The 'will' of the enterprise/sector to <u>develop and effectively manage</u> a sustainable workplace and skill ecosystem in order to achieve its long term business plans.	 (ii) Evidence of implementation of workplace development plan e.g Record of Training Product and Delivery, stories of partnership processes, culture and just transitions to green jobs.
			(iii) The 'will' of the sector to foster a collaborative culture and <u>effectively</u> <u>utilise</u> the skills of its employees to achieve its long term business plans.	(iii) Story: outlining partnership processes for industrial agreements covering attraction, development, effective utilisation and retention workplace strategies – to include health and safety, work/life balance.
				(iv) Story: outlining how skills are utilised to achieve competitive advantage.
	Learning	To promote learning and reflection	Lessons learned in managing a process involving capability development around partnerships, individual enterprises and networks of SMEs, suppliers etc.	(i) Story re lessons learned (ii) Action Plan re process improvement (iii) Implementation of process improvement

Table 1: continued

	Indicator Type	Function	Indicator Example	Measures
	Output	To assess outputs such as workforce management tools, number of qualifications, number of awareness sessions, and number of firms committed.	(i) Work policies that support attraction and retention (participation) e.g. work/life balance, career paths, health and safety, negotiated pay scales, job redesign, high performing work practices such as commitment to learning, open-mindedness and shared vision.	(i) Specific 'demand-side' workplace management practices in place e.g. partnerships process that delivers improvement in attraction, development, effective utilisation and retention of workers e.g work/life balance, career paths, health and safety, negotiated pay scales, job redesign, high performing work practices such as commitment to learning, open-mindedness and shared vision.
			(ii) Skill utilisation status	 (ii) (a) Story: outlining how the sector creates and uses knowledge to enhance competitive advantage. (b) Employee/Employer surveys: Opinion of % skill utilisation (c) QMI utilisation measures
			(iii) Employees with a Certificate III	 (iii) % of staff with a Cert III or above in the following categories: Professional / managers Skilled Trades Intermediate skilled workers Elementary skilled workers
	Outcome	To assess outcomes related to trends in changes or improvements that result from interventions To define a key outcome: Enterprise bargaining agreement developed through partnership process	 (i) Industry adopts sustainable business practices – people, profit, planet (ii) Industry utilising the social partnership process. 	 (i) Evidence of industry capability improving (see thermometer chart) (ii) QMI measures re productivity (iii) Negotiated agreement around improved workplace management practices aligned to strategic and operational needs of the firm or network.
EFFECT	Impact	To assess 'sustainable' impacts that result from interventions	Trends in industry profits, labour productivity, people management and carbon footprints	 (i) Trends in: Business viability or profits, labour productivity Employee satisfaction Labour utilisation Improved WH&S performance Retention/ staff turnover Primary carbon footprint/ reduced waste/ emissions (ii) Story: Outline how the sector supports participation of disadvantaged groups and how VET Investment has supported this participation (iii) Stories: Case studies of how VET Investment is supporting good workplace practices that impact on individual firm or industry performance across profit, people and planet issues.
	Performance	To assess the capability of the manufacturing sector to remain sustainable in variable economic cycles.	Capability of the manufacturing firms/ sector to align strategy, operations and workplace strategies, including operating effectively in an Industry-led Industry-driven ecosystem through variable economic cycles.	Story: summarising the original context, what happened, what worked /did not work, industry performance in managing industry-led, industry- driven government interventions (industry development, work, skills) geared to support sustainable profit, workforces and skills. Comment should be made on a range of economic, social and environmental indicators e.g. technology diffusion, improved business processes, labour productivity, total factor productivity, workplace practices, and waste / carbon management, adaptation / mitigation strategies, trends in competitive advantage, how employer responses to changing business environments are shaping labour demand, contribution to formal and informal training etc

Notes:

Firms / clusters must commit to providing the agreed business data. This needs to be a funding requirement.

The Most Significant Change story telling process, or an adaptation of it, provides rich data on changes that occur. Stories are sometimes considered more useful in reporting some indicators than other measures

Figure 1: Capability Scales



Figure 1: continued



• Industry and Government Capability Scales

The Industry and Government Capability scale tools (Figure 1) will also be refined in the WP&P project. They articulate the types of behaviours that need to be developed incrementally by these specific stakeholders in order to optimise value from integrated policy designed to support economic, social and environmental outcomes.

Our experience is that, unless the 'capability' issue is addressed, stakeholders tend to follow 'business as usual protocols' and collaborative networks are 'business as unusual' (for both government and industry) from multiple perspectives: governance, roles, responsibilities, accountability, monitoring and reporting, employment and just transition goals and a high skill sustainable production function. These capability scales could be used to guide funding directly to industry as its ability to manage demand for and utilisation of skill increases. Funding could be conditional upon the development of demand-side factors.

Potentials and Challenges for the use in/for International Comparisons

The potential for the use of the tools outlined above relies on the underpinning philosophy of the role and purpose of VET in defining country specific skills policy. They would only be of value in regimes that subscribed to industry ownership and responsibility for their own skill ecosystems, where integrated policy environments leveraged demand-side support for attraction, development, effective utilisation and retention of skills through good leadership and people management practices, and where skills policy was clearly linked to higher order sustainability goals.

Internationally, some countries are moving towards this skills policy scenario, particularly where large investments in skills in recent decades have led to little or no improvement in comparative labour productivity. For example, the UK, the OECD Local Employment and Economic Development programme, New Zealand and Australia generally recognise that skills alone are not enough; skills need to be effectively utilised in order to transform their value into economic benefit. *Integrated Industry Development Skills Policy* has the potential to create a demand-pull for skills which in turn supports employment policies.

The global financial crisis has also prompted some countries to consider the value to their economies of traditional supply-driven skills policy. There is growing recognition of the complexities that circumscribe and potentially restrict the value of

skills in workplaces. There is growing popularity of 'workforce development' strategies being used in conjunction with traditional skill supply policies. However, the limitations of the latter used in isolation, generally in the context of labour market rhetoric, are increasingly being recognised. The more contemporary context for skills policy is in workplaces, regions and communities where the influences on skills can be more effectively managed.

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Note

ⁱ This paper represents the views of the authors: affiliations are provided for identification purposes only.