

Chapter One

A Training Reform Agenda

Vocational Education and Training is characterised by an enduring relationship between the logic of the labour market and the logic of education, a relationship that makes VET unique. Skills are social relations and especially labour relations, and both the labour market and education are involved in their definition. Changes in the world of work trigger a need for new social definitions of skill which are settled only through interaction between the spheres of labour and education (Mounier 2001, in Schofield & MacDonald 2004, p. 1).

Introduction

A campaign to shift the locus of control of vocational knowledge, and of training policy and practice, has been underway in Australia since the mid-1980s. This shift in the way the power relations of training are materialised is twofold. In one aspect it is being taken from the hands of the seven Australian states and territories and vested in the Commonwealth Government. At the same time control is being wrested from the training and further education (TAFE) institutions and authorities that were responsible for curriculum policy and design, and teaching, and being granted to Australian industry, via representative advisory and decision-making agencies. The goal of this campaign is a national training system aligned to the skill requirements of a globalising economy – an economy in which trans-national and national companies and economic arrangements exert considerable influence over the fortunes and form of local labour markets. In this power-laced scenario a new entity has been born: the Training Package – modest and flexible; robust and powerful.

The national training system envisaged in this campaign is unconstitutional in a peculiarly Australian way.¹ When the Australian Constitution was framed between 1895 and 1900, just a century after Anglo-European settlement, the states did not cede to the Federation their constitutional powers to establish schools, colleges and universities and accredit their education and training programs. Constitutionally, the Federal Government can intervene in education by using its financial powers, but can only implement its interventions with the agreement of the states and territories.

The campaign has been of many parts, woven into the everyday working lives of policy-makers, managers, administrators, teachers, trainers and training designers in all Australian states and territories. It has deployed novel technological objects and practices in pursuit of its goals. It has involved the political relations of

Commonwealth and State governments and their respective agencies of public administration; employer associations and peak industrial bodies; unions and union peak bodies; publicly funded TAFE colleges and private training providers; major public and private sector enterprises; TAFE teachers and private training provider trainers; and a number of technologies that manage and regulate training – curriculum, units of competency, standards, assessment and recognition tools, and qualifications. These human, institutional, management and regulatory agents have been held together as networks of practice by a series of Commonwealth/state and employer/union agreements about the division of power, and by reciprocal exchanges: money has flowed from government into training providers for teaching and assessment; in return, data about the quantity and quality of these funded activities has flowed to government (ANTA 2004).

Since 1997 the consolidation of a Commonwealth/industry training power base has been played out through a radical departure from the way training programs had long been authorised – in the form of *accredited courses*. The new direction was pursued through an innovative technology called the *Training Package*, and a new authorisation process, called *endorsement*, that set out to replace state and territory government accreditation, in addition bringing industry into a prominent role in training as the designers of Training Packages. This meant that training programs financed by government, or otherwise seeking national recognition, whether conducted in colleges or workplaces, would, if covered by an endorsed Training Package, operate under the auspice of national industry competency standards.

The move to reorient training to the needs of a globalising economy of questionable legitimacy, and the introduction of the unambiguously industry-oriented Training Package, has brought into focus some ‘big questions’ that are the subject of only oblique attention in strategy papers and ameliorative initiatives. This move has laid bare tensions between transnational company demands for ‘fast to market’ training products and market-oriented quality assurance mechanisms; and the measured pace at which the eight state and territory training authorities designed and accredited their different training qualifications, carefully formulated to meet the needs of individuals and industries already represented in well-established ways. It has also raised questions about how training institutions are to balance the growing demand for training oriented to corporate needs, with their responsibilities associated with civic governance.

A pivotal point for these big questions is the curriculum – for it is through curriculum that a modernist settlement about schooling and citizenship has been negotiated. The modern curriculum – whether it is materialised in a ‘cognitive-psycho-social developmental’ mode in primary and secondary schooling, or a ‘culture-cognitive-application extensional’ mode in universities and training institutions, is deeply implicated in the form of representation peculiar to modernity: a dichotomy between ‘nature/non-humans’ and ‘culture/humans’ (Latour 1993). Schooling plays an important role in the formation of the modern citizen as the knowing actor; and the formation of modern knowledge about ‘nature’ as the object of knowing. The curriculum has come to occupy a curious and powerful place in the nature/culture dichotomy as a social laboratory in which the citizen and school knowledge are fabricated. The curriculum represents (forms and demonstrates) the nature of humanity – what the citizen *is* as a social fact, by processing humans to citizenship in general, and by awarding the badges of identity and recognition that are so powerful in placing individuals in ‘society’.

As the management of government sponsored and funded training shifted from accredited state courses to endorsed national Training Packages, it seemed to many that Training Packages were replacing curriculum. I do not regard this to be the case. Rather, I argue that there is a complex *displacement* involved, and that curriculum and the Training Package now occupy different places in the national training system, coexisting in emerging relations in a fluid environment.

What is at stake in this shift is something more far-reaching than the displacement of an outmoded technology by a more efficient model. Everything and everyone to do with the governance and enactment of training in Australia is caught up in an unfolding change in the nature of the contract between a state and its citizens, in which ‘constituents’ and ‘clients’ are mixing their properties in a way that curriculum for some time struggled to accommodate. Nor is the Training Package, with a dual constitution in the state (where it has authority as a state agent) and in the marketplace (where it deals quite explicitly with clients), in a position to unilaterally disentangle this constitutional imbroglio. Might curriculum and the Training Package work together in oppositional harmony – like the Leviathan and the air pump – to re-order the constituency in a new settlement?² The articulation and realisation of the Training Package in a hitherto ‘curriculumised’ world, and the emergence of such constitutional questions, is the focus of my thesis.

Agreeing to go almost national

In 1992 an agreement was reached between the Commonwealth Government and the seven Australian states and territories to legislate a set of national training arrangements into being. The Commonwealth Government passed the Australian National Training Authority (ANTA) Act into law in June 1992, thereby establishing a new regulatory and enabling agency, with the aim of promoting:

...a national vocational education and training system, with agreed objectives and priorities, assured funding arrangements, consistent national strategies and a network of providers delivering high quality, nationally recognised programs at the State and local level; ...

Close interaction between industry and vocational education and training providers, to ensure that the training system operates within a strategic plan that reflects industry's needs and priorities (Schedule to the ANTA Act 1992, Objective 1).

Since 1974 when the Commonwealth Government first provided systemic funding for vocational education, state and territory vocational training systems had taken on superficial similarities – adopting the acronym of TAFE (Technical and Further Education) to describe their training sector; using a common course classificatory system and similar course nomenclature; cooperating on national projects; and exchanging information on policy initiatives. However, they did this from state strongholds. Interstate cooperation ceded no powers. Clear boundaries were maintained, and nationally developed courses had to be accredited by each state and modified to accommodate state occupational demarcations and licensing systems. Further, the governance and management of state training systems remained idiosyncratically unchanged, ranging from the highly centralised New South Wales system under which the colleges were governed by a single state authority, to Victoria where TAFE colleges each had their own governing council, and employed their own staff.

Whether or not the states and territories actually agreed to establish a national *system* – as distinct from a mechanism to more effectively coordinate state and territory training – remains debatable, and ANTA did continue to describe its role as being to ‘establish a national *focus* for vocational education and training’ (ANTA 1998, p. 5), rather than foregrounding the formation of a national system. Additionally, the power of the new Commonwealth authority was circumscribed by the governance provisions of the ANTA Act, under which ANTA is:

... responsible for the development of, and advice on, national policy and the development of a draft National Strategic Plan on vocational education and training, within the framework of National Goals, Objectives and Priorities *established by the Ministerial Council and for endorsement by the Ministerial Council* (Schedule to the ANTA Act 1992, Objective 2, my emphasis).

The membership of the ANTA Ministerial Council (ANTAMINCO) comprised the Commonwealth minister responsible for vocational education and training, and his/her seven state/territory counterparts. This federalist arrangement was reflected in other ANTA committees and working parties, and contestation about ownership and control remained open throughout the period of ANTA's existence.

My interest in the contested formation of national training arrangements was ignited in the mid-1980s during a period of industry and industrial award restructuring initiated under an 'Accord' between the Commonwealth Government and the Australian Council of Trade Unions (ACTU). As part of its reform of job demarcations and wage structures, the process of industry restructuring initiated reforms in the way apprenticeships and other structured work-based training was regulated. The response of the Commonwealth and state governments to the training implications of award restructuring came to be called the National Training Reform Agenda (NTRA)³, described retrospectively as:

A loosely related collection of government policies progressively agreed by Ministerial Councils between 1989 and 1994, whose common element is that they are directed explicitly towards reforming aspects of Australia's approach to skills formation. (ACG 1994, p. 17)

The activities that came under the NTRA umbrella were the subject of critical surveillance throughout the five-year period of reform that led up to and overlapped with the proclamation of the ANTA Act, and the reforms have since been judged to have had serious shortcomings. Nevertheless the intense level of innovation thus generated was important in opening the way towards a national training system, and can be credited with the introduction of three significant sociotechnical innovations.

1. A tripartite machinery for national regulation

The first innovation was the establishment of national consultative and decision-making agencies that represented all groups with a stake in vocational training. Three such mechanisms in particular oversaw the development of and reached agreement on new national directions:

(i) The Ministers of Vocational Education, Employment and Training (MOVEET): the membership of MOVEET included all relevant Commonwealth and state/territory ministers. By bringing education, training *and* employment under one ministerial umbrella, MOVEET extended its political reach beyond that of previous bodies such as the Ministers of Labour Advisory Council (MOLAC), whose brief was limited to Commonwealth/state labour market matters, and the Australian Education Council (AEC) representing the Commonwealth Minister for Education and state counterparts.

(ii) The Vocational Education, Employment and Training Advisory Committee (VEETAC): this group comprised representatives of the Commonwealth Department of Employment, Education and Training and the of the state/territory Departments of Vocational Education and Training, together with employer and union representatives. State government members were senior public servants nominated by and reporting to their Departmental Secretary or Chief Executive Officer and were thus able to reliably speak on behalf of state/territory interests.

(iii) The National Training Board: The NTB was established in February 1990 to '*facilitate the development and approval of national competency standards for industry*' (Johnston, 1992, 7). The NTB was a company owned, on behalf of the Australian people, by the Commonwealth Minister for Employment, Education and Training, and whose board of directors included Commonwealth and state government and industry representatives. This was an unusual arrangement compared to the more common strategy of Commonwealth statutory authorities or joint Commonwealth/State committees. The NTB's role was to design and manage a policy and conceptual framework for the development of competency standards by national Industry Training Advisory Bodies (ITABs); and to approve these standards for registration as *National Industry Competency Standards* that were to be used by the states as the basis for development of state-accredited curriculum.

2. A system of accounting across jurisdictions

The second innovation took the form of a device to enable each state/territory to trade with the others' training products: The agreement on a National Framework for the Recognition of Training (NFROT), signed by MOVEET in August 1992, aimed to ensure national *consistency* around 'recognition of accredited courses, training

programs, training providers, competencies and prior learning of individuals' (VEETAC 1992, 2). It established a means of accounting for different state training products on the same ledger, called the National Register of State Accredited Courses. In signing the NFROT agreement, each state and territory committed itself to amending any legislation that was an impediment to the recognition and use of courses accredited by another state. Once registered by one state, a course could be automatically recognised by all other states.

NFROT *represented* a national system of training without actually being one. The 1992 VEETAC promotional booklet promised that under NFROT 'courses and training programs offered anywhere in Australia can be part of a national system' (VEETAC, 1992, p. 3) because all states and territories had agreed to 'recognise' one another's courses and training providers. NFROT was also an exercise in badging the national move: any training conducted under the NFROT auspice and in accordance with its ten principles could carry a logo incorporating the words 'Nationally Recognised Training'.

3. Enabling and measuring technologies

The third innovation was the adaptation and invention of technologies to enable teaching, assessment and certification to be done differently. Two of these technologies, competency based training (CBT) and the recognition of prior learning (RPL), were widely used in Europe and incorporated into the Australian reform agenda. CBT was formally brought to the attention of government by the delegates on two Commonwealth Government sponsored training 'missions' to Europe. Processes for the recognition of prior learning were piloted in several Australian states from 1989, based on models of recognition in the United Kingdom. The third technology was a series of 'frameworks' for classifying industry competencies and aligning them to national credentialing systems. The first was the Australian Standards Framework (ASF), designed by the NTB to classify competencies into six levels. In 1994 the introduction of the competency-based National Qualifications Framework (NQF) enabled the alignment of competencies and nationally recognised qualifications. In 1997 Australian Qualifications Framework (AQF) incorporated secondary school and university qualifications, showing the relative values of, and links between each qualification.

Warranting industry

Two steps forward...

The effect of the NTRA socio-technical innovations was to rewrite the script for the regulation of training from one in which state TAFE colleges and authorities held a monopoly on accredited vocational training, curriculum development and accreditation, to one that offered private training providers, enterprises, industry peak bodies and national agencies an equal role. VEETAC brought all major constituencies to the negotiating table and the NTB offered industry a national voice in training innovation. Members of boards and committees constantly moved between individual constituencies and the national arena, carrying demands and concessions. VEETAC recommendations to MOVEET already carried state and industry endorsement and NTB agreements carried industry weight.

The National Framework for the Recognition of Training was important in announcing and circulating information about the national 'system' and its new technologies to state TAFE authorities. NFROT focussed attention on the capacity of formerly disparate agencies and things to become part of the same system through the use of standards and benchmarks to align regulations across jurisdictions and to warrant non-government bodies to operate alongside TAFE colleges to provide accredited training.

The introduction of industry competency standards went to the heart of industry demands for greater 'flexibility' in training (to meet the skill needs of different enterprises, and the increasingly rapid changes in technology), and greater control over the outcomes of training. The use of competency standards as the basis for training and recognition of vocational skills shifted the balance of power from state/TAFE to Commonwealth/industry. The task of training needs analysis, previously undertaken by TAFE curriculum designers was now achieved through the design of competency standards by the ITABs. Once endorsed, national industry competency standards had a life independent of TAFE curriculum designers and accreditation boards. In this way authority for determining training outcomes passed out of the training system and into the hands of industry. The NTRA had, in effect warranted industry as an authorised party to what had previously been a Crown responsibility.

One step back...

Through its Commonwealth/state/industry planning and decision-making mechanisms, and through promotion of the ideals of a national training system the NTRA demonstrated both the potential for and the impediments to training reform. Its achievements were ultimately discounted by union and employer agencies, as having failed to introduce 'flexibility' into vocational training and to facilitate interstate recognition of training qualifications. National curriculum projects were slow and time-consuming; the take-up rates of national courses were poor because states continued to develop their own courses, and were slow to put in place the machinery to recognise interstate courses. In addition, the states had different mechanisms for interstate recognition, thus causing confusion and delays. People wishing to have a qualification recognised interstate often had to have courses they had completed individually 'mapped' against the course for which recognition was claimed. Apart from the frustration experienced by individual applicants for recognition, the cumbersome process quite profoundly affected national companies who moved their tradespeople between states: without 'top-up' training or retraining some qualifications were not recognised, meaning that the company may be non-compliant with state licensing laws for proclaimed trade occupations.⁴

A major impediment to the goal of 'flexibility' remained the accredited course itself. Despite the work done by the NTB to extend industry's role as the designers of competency standards, and agreements that national industry competency standards would be the 'building blocks' for course development, ultimately *state* training authorities developed and accredited the courses and *state* TAFE colleges delivered the training. This involved a two-step exercise in translation that had the effect of rendering industry competency standards inarticulate.

Translation step 1 – making 'competency standards' mean 'learning outcomes'

While all state training authorities appeared to have adopted a training model based on industry competency standards, as they had previously adopted a national classification of vocational courses, they did not in fact change their orientation to the way accredited training was to be recorded and enacted. Courses continued to be organised as series of prescribed learning sequences, topics, assessment items and reference materials. In constructing a 'competency based' course, curriculum designers grouped units of competency together in *learning modules* (the nationally agreed competency-based 'building block'), in that process translating industry competency standards

into behavioural learning objectives, to which were attached the prescribed learning and assessment topics and activities. In this translation a statement about work performance became a set of directions for teaching.

Translation Step 2 – making ‘demonstration of competency’ mean ‘testing of learning outcomes’

The now translated ‘competency-based’ course underwent a second translation when TAFE Colleges assessed learning outcomes using written tests, examinations and project work. Although assessment of *evidence* of competent work performance was included in the NFROT assessment principles and documented in competency based curriculum designer guides, this principle was frequently honoured in the breach. Teachers did not routinely engage with students in their workplaces where competency could be readily demonstrated. Evidence collection tools were rudimentary and enlisting workplace supervisors as assessors was impeded by the lack of commonly accepted procedures and standards. Candidates enrolling in a course could claim recognition of prior learning (RPL) on the basis of demonstrated and documented work competency; however the requirement for applicants take written examinations or to complete lengthy written portfolios about their previous experience acted as a disincentive. In some cases RPL merely meant that the candidate for recognition was exempted from classes for selected subjects/modules already completed elsewhere, rather than recognition of competency gained on the job

In this way the course of study remained the instrument for organising learning and the only avenue to a qualification, thus frustrating industry demands for flexibility and portability. When ANTA commenced operations in Brisbane, Queensland⁵ in January 1994, the national scene was thickly populated with consultative mechanisms, working parties and decision-making bodies – none of which had satisfied industry stakeholders that the training system was capable of breaking through the barriers to flexibility, efficiency and responsiveness. The promise of competency based training had been lost in translation; and major employer associations, unions and the ACTU regarded the reform movement as still effectively ‘owned’ by the training sector, despite the part played by industry in determining competency standards.

Another step forward ...

ANTA moved quickly to address and be seen to be addressing the dissatisfaction expressed by its industry stakeholders, at the same time taking decisive action to

consolidate its authority as a national authority. Immediately on taking office, the ANTA Board commissioned a review of the National Training Reform Agenda, including in the terms of reference questions about ‘the appropriate role of public authorities at national, state/territory and provider/regional levels in implementing the agenda for reforms’ (ACG 1994, p. xi). The final report identified manifold problems in the design and processing of national core curricula into state accredited courses and described the reform effort as inflexible and bureaucratic:

Despite the investment of untold sums of money and time and goodwill from all parties toward the reforms over the past five years, and despite some substantial progress towards building a skills formation system to support the competitiveness of enterprises and better serve the needs of individuals, the overall progress has been patchy and the practical results to date have not been commensurate with the effort (ACG 1994, p. 36).

Fitzgerald affirmed the role of industry in setting industry competency standards and made thirty recommendations for the redirection of reform efforts towards the ‘demand side’ of the ‘training market’, arguing that:

[the reforms] should be conceived as developing a training market centred on direct client relationships between training providers on the one hand, and enterprises and individuals, on the other (ACG 1994, p. v)

In the wake of the review, ANTA moved to consolidate national regulatory mechanisms combining the industry-led NTB, the TAFE Directors’ curriculum agency, ACTRAC, and the National Staff Development Committee to form a new ANTA agency: the National Standards and Curriculum Council (NSCC). ANTA’s structural reforms were underlined by the adoption of new slogans to describe the operations of systemic vocational education and training. ‘Meeting the needs of industry’, a widely applied, albeit contested slogan that emerged during the period of award restructuring was replaced by ‘user choice in a training market’, signaling a shift from the long held view that governments should commission statutory authorities to conduct education and training to the notion of regulation of warranted agencies.

In this way the scene was set for the next wave of reforms.

... and a leap into new territory...

After nearly a decade of incremental reform, and three years after the ANTA legislation, the Prime Minister, Paul Keating expressed his frustration to members of the ANTA Board of Directors that, despite a significant Commonwealth investment in

new institutions and strategies, there was still no conclusive demonstration of a national approach to training. He urged the ANTA Board and its CEO to consider anew strategies to surmount the barrier constituted by lengthy curriculum development and the need for state accreditation. Two Commonwealth review reports combined to point the way to a regulatory and enabling solution. The first was an apparently procedural report initiated in accordance with a requirement built into the ANTA Act (Section 4, Schedule, Clause 40), that the transitional arrangements (put in place by the Ministerial Council in 1992) be subject to review before the end of 1995. In the wake of the Fitzgerald review findings (ACG 1994) that the emerging national system was overly complex and regarded by industry as inflexible, the Committee of Review of the ANTA Agreement focused its attention on the national and state regulatory machinery. The report (Taylor 1996) pointed to duplications of function and recommended that the seven identified points of regulation be reduced to two. As the Taylor review was underway, a review of the effectiveness of Australian business management was handing down its findings. The *Report of the Industry Taskforce on Leadership and Management Skills* (Karpin 1995), found deficiencies in the quality of Australian business management and argued that government intervention in skill development should not be confined to 'shop-floor' employees. Amongst its findings the report recommended intervention to establish work based skill development programs for 'frontline managers' – including shop floor supervisors and middle-level process and line managers. As ANTA continued to wrestle with the intransigence of curriculum and accreditation and circulate the notion of grouping competency standards into 'packages', the findings of the Karpin Report went unnoticed until the Minister for Employment, Education and Training demanded to know what ANTA was going to do about the 'problem of frontline management. ANTA proposed a project to design a national frontline management curriculum, in accordance with the findings of the Karpin Report. It was unexpected outcomes of this project that offered the emerging discourse about 'packages' and 'packaging competencies' a material form and acted as the prototype for the construction of a non-curricula training technology.

The Training Package is announced without consultation

It had become customary for changes in vocational training to be formally announced after extensive consultation and testing of stakeholder opinion. This was not the case with the Training package. In November 1996, just ten months after the Taylor Report was handed down, and without any preliminaries, ANTAMINCO announced the introduction of a *National Training Framework*, comprising 'revised and simplified

arrangements for the recognition of training organisations and training products' and Training Packages which integrate nationally available training products including new assessment arrangements with competency standards' (ANTA 1997, p. 1. This is how ANTA explained Training Packages in its first policy paper on the subject:

Figure 1.1: What is a Training Package

What is a Training Package?

It's exactly that - a consistent and reliable set of nationally endorsed components for training, recognising and assessing people's skills. Training Packages are developed for industry by national Industry Training Advisory Bodies (ITABs), Recognised Bodies or enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement, developers must provide evidence of extensive consultation and support within the industry area or enterprise.

Each Training Package:

- o Provides an integrated set of nationally endorsed competency standards, assessment guidelines and qualifications for a specific industry, industry sector or enterprise
- o Enables qualifications to be awarded through the direct assessment of competencies rather than against the learning outcomes of a course
- o Encourages the development and delivery of training which suits individual needs
- o Encourages learning in a work environment (on-the job, work experience, work placement, work simulation or by a combination of methods) which leads to verifiable workplace outcomes.
- o Provide flexibility for employers to choose a trainer and negotiate an individualised training program
- o Offer learners recognised vocational training opportunities which can begin at school or be undertaken part-time
- o Combine employment with structured training to cover both theoretical and practical training for the workplace

ANTA 1997, p. 1

This policy statement articulated the long-promised training reforms by using the language of the reform agenda – choice; flexibility; negotiation of individual training programs; work-based learning; and direct assessment of competency to describe this new device to enact effective training. The statement also signaled that 'industry' could bypass state accreditation processes; and that individuals seeking and national recognition for skills could bypass TAFE Institutions. Provisions contained in the National Training Framework for legally constituted organisation that could meet prescribed standards to become Registered Training Organisations (RTOs), ended the TAFE monopoly on the delivery of accredited training. Under these provisions,

companies could assess the competency of their own employees against the benchmark of national standards and/or nationally endorsed enterprise standards and issue a nationally recognised certificate. Alternatively companies could contract a Registered Training Organisation (RTO) to carry out this role – to the company’s specifications, in the framework of national quality standards. And it was no longer mandatory for individuals to complete learning and assessment activities in an accredited course in order to be recognised as competent. As a condition of their registration as a training provider, TAFE colleges (and other RTOs) were obliged to recognise competency and issue certification to that effect if the applicant could produce evidence of work competency.

What might have appeared to be a small shift in the focus of skill acquisition in fact signaled a major shift in the power base of training – from State Training Authorities and their curriculum and accreditation units, to ANTA, its industrial allies, and to an increasingly diverse range of RTOs that would become free to negotiate the structure of training with their industry clients. Training Packages opened the way for the competency to be assessed in the workplace (for example through observation of work practice, supervisor testimony, peer review) and for competency to be formally recognised through an RTO issued qualification, or statement of attainment (for one or more units of competency). Further, providing competency was current, qualifications did not need to be completed in a specified period of time. Further, because the quality of Training Packages was to be warranted through a national process of ‘endorsement’ by a national agency – the National Training Framework Committee (NTFC) – it was unnecessary for each state to accredit training programs. Under the new arrangements RTOs could select units of competency from Training Packages, according to ‘packaging rules’, and offer qualifications that met national industry standards.

So, why did ANTA not establish a system of national accreditation of vocational curriculum rather than move to a new form of regulation and quality assurance?

There are a number of answers to this question – some refer to jurisdictional issues; others to practices and practicalities. When I asked the first ANTA CEO, Terry Moran, whether ANTA had considered national accreditation, he replied that they had, *‘but not for long’* (Moran, personal interview, May 2003), concluding that it was too complicated to enact nationally, and that accreditation of courses was best left to training providers. Some ANTA board members also concluded that national accreditation would lead to over-regulation.

Another view is that, constitutionally, it would be almost impossible for the Commonwealth Government to enact a national system. As outlined in the introduction to this chapter, under the Australian federal system, the states retained their own constitutions and the federation was formed by the ceding of certain powers to the Commonwealth Government – chief amongst which were customs, defense and taxation. The states retained responsibility for the provision of public education. The Commonwealth Government can and does play a role in the provision of state education, but it could not assume a state responsibility without either the agreement of all states or a referendum to change the constitution. The latter would be politically unthinkable without state support, and if state and territory ministers had agreed to collaborate on national accreditation, they would have faced opposition from their own state accreditation institutions, and accreditation system allies in colleges and some industry agencies.

Accordingly, national accreditation was not an option, and experience had shown that neither agreements nor new forms of curriculum had made a substantial difference: the NFROT national register of accredited courses, established to enable states to adopt each other's courses without repeating the accreditation process, resulted in very few timely interstate agreements; and the introduction of industry competency standards and state agreements based on the ten NFROT principles for accreditation had merely succeeded in inserting further translation and reviewing stages into the process.

The way through the curricula impasse that suggested itself was to enable industry endorsed non-course pathways to certified training outcomes, thus removing the need for state accreditation. The likelihood that states would evade the new arrangements was addressed by the enactment of conditions under which receipt states and territories of Commonwealth funding for government-regulated training was conditional on the adoption of Training Package qualifications, where available. Although individual states could, and did, impede the smooth passage of Training Packages, they could not completely block them, particularly given the growing number of private RTOs operating within their jurisdiction. In this way the introduction of the Training Package broke the hegemony of state accredited courses.

A word: About curriculum and its meanings

I have described the disputed territory of national training reform in the way it is commonly described by many of its constituents, as being occupied by the opposing forces: the Training Package and ‘the curriculum’ – the first hitherto unknown; the second so familiar it is seldom defined by its users, who convey its meaning as a reference to a commonplace institutional setting and a well-imagined history.

As a participant in the training system I see and feel the tension between the curriculum and the Training Package as the latter stretches the elasticity of institutional practices to near breaking point. I have been, and continue to be party to long negotiations about how to ‘fit’ Training Package requirements into the curriculum system – for instance, working out how to record an assessment result *this* semester (as required by the institution’s record system) when valid demonstration of competency (under the rules of the Australian Quality Training Framework) requires that a teacher twice visit and witness competent work performances – one of which visit will occur *next* semester.

As a researcher I associate the tension between the Training Package and the curriculum with wider changes in sociotechnical practices associated with the ontological ordering of people and things and with epistemological projects that grapple with the political role of knowledge in recording and reporting on value/worth and upholding given standards of quality.

The sociotechnical changes in question have been named by some philosophers and sociologists of knowledge, science and society as new ways of ‘doing’ modernity and by others as a change from modern to postmodern discursive practices. Broadly speaking this is about a shift in the way things are known and accounted for, and the power relations of their articulation as practice – an epistemic and ontic ordering. Two aspects of this shift are briefly discussed here: changes in the bases and sites of knowledge production; and in the way authorisation, responsibility and value/worth are managed in the knowledge economy.

Modern and postmodern facts

Poovey (1998) identifies a change in knowledge production characterised by the emergence of the ‘modern fact’ whose origins are associated with the development of natural philosophy as a knowledge producing practice in the seventeenth century. Poovey defines the modern fact quite precisely as an epistemological unit that is both

an observed particular and evidence of some theory (Poovey 1998, p. 9). As such, the modern fact linked observations in the phenomenal world to the production of systematic knowledge, and privileged knowledge produced through experience or experiment: that is, knowledge whose production could be witnessed and verified by disinterested observers – gentlemen of independent means (Shapin 1994). The modern fact belongs to a knowledge that is known as a singularity of many (and ever increasing numbers of) observed particulars – an unfolding discovery, mapping, codification and archiving of knowledge about the empirical world.

Poovey does not regard the modern fact as the only epistemological unit of modernity, nor now as a dominant unit. She argues that the modern fact started to undergo a reformulation in the late nineteenth century and notes – almost in passing – the emergence of what she names as the ‘postmodern fact’. The critical distinction she makes, and the point of particular relevance to my understanding of the difference between the curriculum and the Training Package, is found in the following extract:

After the late nineteenth century, at least in the natural and social sciences, expert knowledge producers sought not to generate knowledge that was simultaneously true to nature and systematic but to *model the range of the normal* or sometimes simply to create the most sophisticated models from available data, often using mathematical formulas. As the units of such models, postmodern facts are not necessarily observed particulars; instead, as digital “bits” of information, the “phenomenological laws” of physics, or poststructuralists signifiers with no referent, they are themselves already modeled and thus exist at one remove from what the eye can see, although they are no less the units by which we make what counts as knowledge about our world (Poovey 1998, p. 5)

The curriculum is very much a map of observed particulars to be learned; bound in space to the apparatus of its production – the academy; and in time to sequences of learning. On the other hand the Training Package, as a set of standards, models work performances in general. The observed (or observable) particulars are not *in* the Training Package; they are produced through individual performance. The singularity of the standard is not a reality ‘out-there’ but an abstraction of possible performances that are historically, culturally and materially located (Mol 1999, p. 74). In this way, through the Training Package, performances measured against standards are, and can be accounted for, as multiple realities. In contrast, performances arising from a sequence of particulars, that are (in fact) multiple, need, as curriculum, to be read as a direct reference to the singular course of study and assessment item in order to count.

Warranted service

In the goals of the Training Package there is a hint of relinquishment – of pulling back from a particular vision of empire and the representation of the nature of humanity embedded in the curriculum’s concern with what a citizen needs to learn/know and the conditions under which the learning/knowing is undertaken. The Training Package expresses a somewhat modest view of authorisation, control and inspection. It admits and accounts for multiplicities – being flexible, permitting the design of individualised training paths, encouraging learning in a work environment. Its progenitors gave up on national accreditation as either too difficult or over-regulatory. With its language of standards; outcomes; and performance criteria, the Training Package can be regarded as a tool for audit and self-surveillance, something that enables governments to ‘ostensibly withdraw [from their role as inspector] to the position of simply checking the resultant indicators of performance’ (Strathern 2000, p. 4).

There is none of this modesty in the curriculum: it admits an interpretive plurality (of a singular knowledge) but not multiple enactments (Mol 1999); it is an instrument for surveillance: for teachers to use to direct behaviour; and inspectors to use to monitor the content of instruction. There is reference in curriculum theory and manuals for curriculum developers, to curriculum as a representation of and selection from a body of knowledge, a view that arguably reached its zenith in the wake of nineteenth century Anglo-European industrial and imperial expansion, as illustrated in the following extracts:

Whatever the race has learned that would enable us to meet our needs and solve our problems in a better way by knowing about it, should be placed at our disposal by the curriculum ...the whole curriculum has represented selections from race experiences found valuable in some way. (Bonser 1923, pp. 3-4)

The truth may be that England has become strong in industry exactly because she has never consciously set up the commercial or industrial standard in education *by educating her sons through specific curriculum for commerce and industry*. If she has set any standard at all, it has been manifested in the conversation of liberal subjects of study that do not “pay” and in the free scope given to individuals unaided and undirected by excessive state intervention to conquer and possess. (Barnett 1905, p. 99, emphasis in original)

In the first extract the curriculum represents an accumulated bank of ‘valuable’ knowledge; in the second it is an engine for industrial power because it draws on a

reservoir of disinterested 'liberal' knowledge. The allusion here is to an organised archive – not to the archive referred to by Foucault, which emerges only in fragments, regions and levels (Foucault 1992, p. 30), but in the sense employed by Thomas Richards in his 1993 study *Imperial Archives: Knowledge and the Fantasy of Empire* in which he describes an archive that represents:

The ordering of the world and its knowledges into a unified field ... located explicitly in the register of representation, where, most successfully of all the archive often took the imagined form of a utopian state (Richards 1993, p. 11)

Richards sees the archive as 'a fantasy of knowledge collected and united in the service of state and empire' (Richards 1993, p. 6). In exploring a vision of empire united by information he names 'the imperial archive' as a product of:

The sense that knowledge was singular and not plural, complete and not partial, global and not local, that all knowledge would ultimately turn out to be concordant in one great system of knowledge (Richards 1993, p. 7).

In an examination of the problem of '*creating and controlling information systems for comprehensive knowledge*' (Richards 1993, p. 115), Richards uses Jules Verne's *20,000 Leagues under the Sea* to illustrate a working out of this modern fantasy. He describes the Nautilus as an 'archival facility for capturing and processing data' – an 'archive-machine' (Richards 1993, p. 118). His metaphor calls up an image of the Nautilus slowly (majestically) trawling the ocean: drawing in sea-life, examining, classifying, documenting and exhibiting it in an on-board museum, at the same time allowing those on the observation deck to view the ocean outside: 'an endless phenomenal procession of raw data' – 'a continuous interface between words and things' (Richards 1993, pp. 117-8).

I extend this metaphor to envisage curriculum as another type of archive-machine⁶ that draws in knowledge *and* people. Inside the curriculum, knowledge is organised for the purpose of instruction, according to a more or less standard method and exhibited as syllabus subjects and topics; and people are organised for the purposes of instruction into classes, and take in selected subject knowledge. Looking out from the machine they are able to observe the 'raw data' of school knowledge in the phenomenal world. Having travelled through the machine, they are exhibited as citizens with attributes and dispositions appropriate to their social and occupational locations.

This process – curriculum as practice – can be, curiously, both closed and open to the public. Those who travel through the archive machine are privy to its workings enacted in classrooms. However, unless and until deliberately revealed, for all intents and purposes, apart from the syllabus and the school prospectus that represents it to the world outside, the curriculum remains hidden inside the black-box of the archive-machine.

Working in the same metaphorical field I describe the Training Package as an audit-machine: it does not select from a comprehensive accumulated body of knowledge, rather it describes performances – as an abstraction, captured at a point in time and space. When the required type and standard of work performance has reached a designated point in its constant sociotechnical evolution, it is discarded and a new abstract captured. Moreover, the Training Package and its machinations are quite public: anyone with access to the Internet can go to www.ntis.gov.au and view the qualifications and units of competency in all national Training Packages.

The shift from curriculum to Training Package opens up a new imperial fantasy – a globalising modern order in which the role of the Crown is no longer to commission vocational knowledge from its archive. Its new role is to warrant industry to record its own vocational knowledge on the basis of observed enactments of work and to manage accountability at a distance through the agency of performance indicators and contracted auditors. In this way the Training Package signals the advent into the public realm of government-sponsored training of both a market and knowledge audit economy.

Curricula in Australian TAFE

There is an imagined TAFE curriculum in Australia – one that unfolded in the nineteenth century as the instrument of *technical education* and extended uninterrupted into the twentieth century, merely modernizing its name to TAFE. It has been both hailed and condemned as an engine of industrial growth through the production of skilled and ‘semi-skilled’ labour. As we shall see in Chapter Four, in which I explore elements of the historicity of technical curriculum, its direct role in the development of job skills is comparatively recent: indeed enrolment in a course of study was not a compulsory part of apprentice training in Australia until the 1920s. Nor can we talk of a uniform technical/TAFE curriculum across the states and territories: as outlined earlier, seven different state/territory enactments of the curriculum in the 1990s were able to impede nationally agreed qualifications.

There are similarities between the states insofar as technical curriculum was practiced first in individual colleges established by local interests, later taken by/handed over to state governments, and, in the 1970s swept into a national arena, as an imagined singularity, when the states and territories accepted Commonwealth Government funding for curriculum development. It was during the 1970s that ‘the curriculum’ became primarily associated with a standard form of documentation. The phrase ‘*curriculum for automotive*’ for instance, would refer to the published accredited course of study in each state and the terms ‘accredited course’ and ‘accredited curriculum’ are used interchangeably. This standardisation came about as a result of the Commonwealth Government’s accountability requirements and the funding of national core curriculum projects, through which states and territories came to use similar documentary forms.

The use of the term ‘curriculum’ also signifies a set of power relationships that is heavily underscored by the status of TAFE teaching as a profession. Compared to other professions, including other sectors of teaching, TAFE teachers earn lower salaries and have less well developed career opportunities. The absence of professional standards for registration as a TAFE teacher contributes to an uncertain professional identity⁷, and working conditions effectively restrict the amount of time teachers have to design and resource their own programs.⁸ ‘Sessional’ teachers employed on an hourly basis are often handed extracts from curriculum documents with the relevant sections marked for ‘delivery’ in their classes. Such conditions have helped to consolidate control of the curriculum in the hands of state training authorities and create a perception of the TAFE teacher as a ‘deskilled’ professional (Senate 1998; Gonczi 1998; Senate 2000).

During the 1980s and 1990s control of TAFE curriculum was a matter for debate between the states and their curriculum specialists and industry. In this debate individual teachers was assigned to the classroom where they would ‘deliver’ the curriculum. Curriculum designers widely agreed that industry’s role should be to advise TAFE about skill needs that would then be translated into learning objectives by the designers. For instance, in the debate over competency based and ‘broad-based’ curriculum (the latter referring to courses for which the learning objectives are drawn from disciplines related to a vocational area – for instance a course on plant physiology that is related to but not about horticultural work practice), the issue at stake was the form of the curriculum, not whether curriculum development should be undertaken by classroom teachers.

Curriculum versus the Training Package?

To the extent that TAFE curriculum can be spoken of in the singular, it is as policy: an instrument of State/Territory government authority. If Training Packages are a challenge to 'curriculum' it is to the curriculum of the state and its translation into a management device in training colleges: *not* the curriculum enacted by teachers and their students. State Training Authorities (STAs), some state industry training advisory bodies, and college administrators have been amongst the most vocal critics of Training Packages and frequently impute their concerns to educators as a whole, as indicated in the following response to an ANTA evaluation of the impact of the Training Package from an STA project manager:

You read the information about Training Packages. The term 'curricula' has disappeared. What I mean by that is; it has an effect on the ability of RTOs to deliver... That was what created the angst, when the educators looked at that course. How am I going to deliver this, within X amount of hours, with my resources? (Down 2002, p. 28)

Indeed the word 'curriculum' does not feature in ANTA descriptions of Training Packages and their work. The focus is on 'skills', 'knowledge' and 'effective work performance', as illustrated in Figure 1.2:

Figure 1.2: ANTA definition of Training Packages

Training Packages are sets of nationally endorsed standards and qualifications for recognising and assessing people's skills.

A Training Package describes the skills and knowledge needed to perform effectively in the workplace. They do not prescribe how an individual should be trained. Teachers and trainers develop learning strategies - the "how" - depending on learners' needs, abilities and circumstances.

Training Packages are developed by industry through national industry advisory bodies, recognised bodies or by enterprises to meet the identified training needs of specific industries or industry sectors. To gain national endorsement, developers must provide evidence of extensive consultation and support within the industry area or enterprise.

Training Packages complete a quality assurance process and then are endorsed by the National Training Quality Council (NTQC) and placed on the National Training Information Service (NTIS).

<http://www.anta.gov.au/tpkWhat.asp> Accessed July 2004

While ANTA is silent on the question of ‘curriculum’ as a part of the state *regulatory* apparatus, it has unequivocally located it in the hands of the teacher as a device for planning and conducting learning:

Teachers and trainers develop learning strategies – the "how" – depending on learners' needs, abilities and circumstances.

What ANTA has done here is to signal a new way of doing the governance of training, in which the state has relinquished its role as designer/overseer of the processes whereby people are formed as worker/citizens. Decisions about what will be learned are firmly in the hands of industry; decisions about how it will be learned have been offered to teachers and trainers. Under these arrangements the role of the state is to manage training transactions, but not to determine the content of those transactions.

The Training Package has not replaced curriculum as teachers’ business; rather it has *displaced* ‘curriculum’ as a regulatory device; at the same time challenging long-established notions about who is to be involved in the business of teaching and learning, and raising the question of how curriculum might be used to enact new forms of vocational learning. Before the advent of the Training Package, ‘industry’ and its workplaces were worlds apart from TAFE teachers. Notwithstanding ‘industry consultation’ (undertaken by the curriculum designers rather than teachers), and work placements (in which the teacher’s role was arrange placements, and set topics for related essays and assignments), teachers plied their trade in the classroom/school workshop – a familiar landscape populated by curriculum knowledge, lessons, timetables, textbooks, examinations and attendance rolls. It is that certainty that has been disrupted: the Training Package has ushered in the workplace and workers as players in the game of crafting and doing accredited training, and signalled that work knowledge is to be the content of vocational learning – not drawn from an archive of things to know, but derived from and measured against models of normal action, and enacted beyond and without the classroom and its artefacts.

Ten years on

Figure 1.3: Training Packages in 2004

In January 2004, there were 72 endorsed Training Packages. Nine of these were enterprise Training Packages, developed by enterprises for their own unique needs. Training Packages have a set date for review - usually around three years after they are endorsed.

Reviews ensure Training Packages remain current to meet industry needs and allow issues that arise during their implementation to be addressed.

In January 2004, ten Training Packages had completed the review process and been re-endorsed.

A further 36 were under review at that time. Information on Training Packages under development can be found on our upcoming packages page.

<http://www.anta.gov.au/tpkWhat.asp> Accessed July 26 2004

Ten years after ANTA opened for business, Training Packages had become the official currency with which training is transacted in all Australian states and territories – for the majority of vocational skill areas in almost all industries. A major ANTA goal had been achieved: they had been able to both regulate and offer choice: Training and further education’ (TAFE – conducted by institutions under the jurisdiction of state/territory governments) and ‘vocational education and training’ (VET – including training offered by registered private providers) now work as a singularity called the national training system, *and* as a multiplicity of different training performances in different sites across Australia, thus demonstrating to the critical stakeholders who participated in the Fitzgerald inquiry, the potential for adaptation, customisation and portability that previous arrangements were unable to deliver.

The fact that there are over seventy endorsed National Industry Training Packages signifies a major achievement, given the complex social and institutional engineering involved in their construction and authorisation. The Training Package is now impossible to ignore because it has been articulated as a matter of fact with descriptive and directive power. It has important allies including seven ministers of the Crown, ten national industry skills councils⁹ and a substantial budget; it has reproduced and inserted itself into the working world of every state training authority and RTO in Australia. If it is not the subject of wholehearted support, the Training Package has nevertheless found its place in the national training system. At the time of writing, as the Commonwealth Government moves to abolish ANTA, and consolidate the control

of national training within the Department of Education, Science and Training, Training Packages, their endorsing authority – the National Training Quality Council (NTQC), and their quality assurance tool – the Australian Quality Training Framework, remain intact as the agents of nationally recognised training.

The Training Package in the scheme of things

In this thesis I want to account for the Training Package as an entity interpolated into Australian training relations. I am interested in how and why it came into being, and about its nature as a material entity. Equally, I am interested in what happens in the doing of Training Packages – in how they are imagined and worked with by training system constituents. I see these to be questions of ontological politics that have to do with the historical, cultural and material location and crafting of multiple realities (Mol 1999, pp. 74-5). Nothing was given and fixed in the introduction of the Training Package: there was no single agenda, just as there is no single outcome, nor a single ontological truth of the Training Package: *it is as it is done* – enacted, not given; multiple, not singular. This is the ‘politics’ of the entity, whose character is ‘both open and contested’ (Mol 1999, p. 75).

In being multiply ‘done’, and in doing the relation learning/work in new ways, I regard the Training Package to be implicated in a larger ontological break in modernity, and an emerging episteme that has to do with new ways of managing complexity and new forms of governance. I have hesitated over making this such a sweeping claim as there is a danger it will be taken to over-extend the limits of possibility associated with a relatively modest technology interpolated into one of the smaller training systems on a global scale. On the other hand, making this claim serves as a reminder that changes that in retrospect appear epochal – a single grand dichotomy between one state of affairs and another, are comprised of many small ‘uncertain and unexpected divides’ (Goody 1977, cited in Latour 1990, p. 20). The Training Package signals one such divide: a move away from a definitive one/many accounting for the things of ‘reality’ – the formation of citizen-workers, and towards a whole/part, relational and dependent form of accounting, associated with systems that ‘model the range of the normal’ (Poovey 1998, p. 5) – the attribution and recognition of particular different worker statuses in relation to national benchmarks. On the ‘whole/part’ side of the ontological divide, the state is drawing back from day-to-day production and direction of citizens and their work. Instead it is employing technologies, in the form of standards and

monitoring techniques, which enable surveillance to be exercised at a distance, and from multiple points of reference.

It is in this sense that I characterise the Training Package, as a mode of governance, as *audit-machine*: a device that enables training transactions to be witnessed and measured; imploding enacted differences in the abstract by aligning them against standards. I distinguish the Training Package from curriculum – a mode of governance as *archive-machine*: a device that works to particularise and order difference arising in the transmission of knowledge. In other words, these modes of governance are done as different forms of generalising, offering different solutions to the problem of order. I see both curriculum and the Training Package to be generating a generalising logic (Verran 2001), and regard the different routines and rituals of performance in each to give rise to distinct forms of generalisation. The work done by this archive/audit machine metaphor is to distinguish between these two modes – acknowledging that these are not ‘pure’ forms, but ordering vectors; and at the same time to link curriculum and the Training Package as generalising devices.

To draw together the threads of my claim regarding the way these two devices do their work of generalising, and to lay out the ground on which curriculum and Training Packages, and their modes of operation could be reimagined: in relation to one another, I first need to attend to two further metaphors employed to distinguish and make connections. These metaphors – *articulation* and the *imaginary* – are outlined below.

Articulation

Latour makes an extravagant claim for articulation when he writes that it is not a property of human speech but ‘an ontological property of the universe’ (Latour 1999, p. 303). For Latour *articulation* names the propensity for things, arrangements, institutions, entities, settings, places, meanings and so on (all of which can be called *proposition*), to become something meaningful. The emphasis in the metaphor is on action and interaction: one of Latour’s examples: ‘Pasteur “articulates” the lactic acid ferment in his laboratory in the city of Lille’ (Latour 1999, p. 142)

The use of ‘articulation’ here works by first excluding certain meanings: ‘invention’; ‘discovery’; and ‘manufacture’. Secondly it works by making a claim along the lines of the following:

Pasteur used a microscope to make something visible; he speculated about what it might be and, while realising that he has no irrefutable proof that what he had made visible was a particular entity (a living entity – a new form of yeast), nevertheless proposes that it be considered as a living entity called lactic acid fermentation yeast (a paraphrasing of Latour 1999, pp. 140-45)

What matters here is not whether this proposition is ‘true’, but whether it *works* as a basis for further meaningful action. What matters philosophically is the capacity of the metaphor to underscore the historicity of agency of entities and to help overcome the ontological and epistemological difficulties embedded in the modern settlement: to say that the lactic acid ferment was articulated in a laboratory in Lille in 1856 marks the start of its journey into sociotechnical agency. ‘Articulation’ thus ties realities to the work that is done to bring those realities about and recognises realities to be in a state of coming-into-being-and-change. To refer to an entity as being articulated is to suggest an emerging coherence, coalescence or clotting into existence.

I use articulation as a metaphor that encapsulates the intense interactivity of people, places, problems, possibilities, ideas, talk, technical tools and know-how involved in the achievement of agency. It is particularly useful as a means of describing the work of social ‘laboratories’ – such as the universities in which curriculum first emerged, and the government and industry agencies in which a not-curriculum regulatory agent called, for want of a better name, the ‘Training Package’ was mooted, proposed and eventually materialised. It helps to avoid the implication that new strategies and things emerge from the great well of untapped nature through the minds of great thinkers and the well-orchestrated plans of government: the cloudy substance that Pasteur first glimpsed under his microscope may well have been ‘there’ and active in the fermentation of milk to produce cheese but that notion has mere local currency until Pasteur, the microscope and the cloudy substance got together and worked out how to go on to bigger things. Similarly, historical traces suggest that ideas about and methods for organising schooling that ultimately came to be grouped together as the entity and practices known as the curriculum, were in circulation before the time at which codified practice and subsequent theorising gave voice, currency and agency to ‘curriculum’: articulating it on a scale that provided durability.

The imaginary

I use the metaphor of the *imaginary* to grapple with emergent realities, and their gradual clotting as routines, *and* with realities that are reformed and re-enacted in new ways – re-imagined. The imaginary is used to refer to routine or ritual performances (Castoriadis 1998, p. 130); and to processes of material imagining – calling up of images to which the ‘real’ is attached in order to become what we can know as real (Bachelard, in Carter 1998, p. 28). Michael Carter theorises the imaginary as a collective social tool that offers a way of configuring meanings ‘at the very commencement of any transactions between human beings and the world’ (Carter 1998, 27):

It is there in the founding moment of the social because collectivities are not simply rational machines for the satisfaction of human need, but are simultaneously, even primarily, collective symbolic networks. This symbolic dimension of collective life has a number of crucial elements that position the order of the Imaginary in a precise way. It is through the symbolic network that the institution of the social is able to appear to its members. That is, the Imaginary is the manner of being in which the institution is given to us (Carter 1998, p. 29).

What Carter suggests here is an order of things that is durably institutionalised as ritual and routine, having coalesced *through practice*. He also suggests that through ritual and routine entities take on a status that *greets practice*. This should not be read as a fixed stage setting, rather as a sociotechnical confluence that is there in the collective, as a cultural tool. In this meaning, the imaginary does not reside in the mind, but in action: playing a role in shaping the way emergent forms coalesce and generating ontic/epistemic certainty – not from an abstract logic, but from everyday routines, practices and associations.

The concept of the imaginary is not an easy one to grasp in the modern episteme. As Helen Verran points out in her 1998 paper *Re-imagining land ownership in Australia*:

Modernity circumscribes its imaginary as of aesthetic, but not ontic or epistemic interest (Verran 1998, p. 243).

In this paper, and also in her 2001 exploration of the relational character of quantification, Verran draws on and in turn illuminates the role and meaning of the imaginary. By dealing symmetrically with both Western and non-Western cultures, she shows the imaginary at work in both cultures as an ontic/epistemic tool, achieving

three outcomes: first to overcome the abhorrence of a moral economy that establishes a boundary between ‘pre-modern’ and ‘modern’ cultures – freezing both in place as a distinct ‘them’ and ‘us’ – ‘locked forever together and apart through the spectre of originality/mimicry’ (Verran, 2002, p. 31); secondly to show how imaginaries operate as generative tools; and thirdly to demonstrate that imaginaries are articulated and embodied in the work of generalising – ‘working a particular microworld as a set of strategies for managing complexity’ (Verran 2002, p. 170). In her 2001 study Verran uses the notion of the imaginary to counterpoise a metaphysics that tells reality as a given foundation and one in which reality is accomplished through collective action. She identifies two imaginaries at work here. The first is described as a foundationist imaginary whose operations reside in an ontology of ultimate meanings, and singular points of departure – an institutional, cadastral imaginary, in which what is is accounted for as *a priori* categories. The second is named as an imaginary of emergence, that has ‘worlds, things emerging all of a piece’, and in which knowing is pictured as ‘routine and necessarily embodied collective acting emergent in the life of particular times and places, contingently linked both within those times and places and with other times and places’ (Verran 2001, 38). Working in this emergent frame Helen Verran explains the ways in which English-speaking and Yoruba-speaking children approach questions of quantity as different forms of generalising that arise from different ways of doing the relation unity/plurality. Embodied in the routines employed by the English-speaking children to answer questions about quantity is a ‘one/many’ form of generalising in which what matters is to maintain attention on the objects in question. In contrast, the Yoruba-speaking children employ routines that embody a ‘whole/part’ mode of generalising, in which it is important to pay attention to what is being done – to the transactions through which quantity is being made and maintained or changed.

To explain how these metaphors are used in this thesis to picture the operation of curriculum and the Training Package as different modes for managing complexity, and as devices implicated in the work-learning relation I present the following table, inspired by Latour, in which I have aligned the constituents and characteristics of the imaginaries and forms of generalising described above, with the metaphors used to characterise curriculum and the Training Package.

