

The Politics of Neoliberal Curriculum Change: Teacher Education and Forbidden Knowledge

Anne-Marie O'Neill

This paper sets out an analysis of the content and politics underlying of the Technology Curriculum. It demonstrates the role of the structure and content of the school curriculum in shaping the National Government's 'Enterprise Culture' and its project of social, economic and cultural reconstruction. This case study illustrates the contribution that the academic study of education can make to our understanding of the complexities of the construction of knowledge and the nature of teachers' work under neo-liberalism. The paper then argues that this is the very knowledge that many pre-service teacher education students are denied exposure to, in courses based on what Snook (2000) has called 'practical craft models' which embrace the politics of anti-intellectualism.

Introduction

From 1984 through to 1999 New Zealand had 'imposed' on it one of the most rigid programmes of economic, social and cultural *structural adjustment* undertaken anywhere in the world. This drastically reduced the size of the state ensuring massive cuts in spending across all public services and welfare during the 1990s. Accompanying this process of 'economic rationalism' was the widespread imposition of highly centralised auditory, regulatory and accountability mechanisms to measure economic outputs across the state. The fourth Labour Government (1984-1990) and its National (1990-1999) successor sought to privatise and commercialise the state, education *and* every aspect of our personal/social lives to increase our global economic competitiveness (levels of productivity and ability to attract foreign investment) and to facilitate economic globalisation (the unimpeded flow of goods, services, investments, labour and information across national borders).

The post-Picot restructuring which set up self-managing schools has been the subject of extensive analysis (Olssen and Morris Matthews, 1997; Peters and Marshall, 1996). This period laid the foundations for the second phase of educational change during the 1990s. This decade saw the ideological aspects of the broader change programme attain prominence and the curriculum changes become pivotal to these. By 1990, the election of the National Party and their 'decent society' were regarded as the antidote to the unpopular Labour Government. Upon election however, National abandoned this platform in pursuit of neo-liberalism and the further commercialisation of public and private life. Its Minister of Education, Lockwood Smith, placed the reform of curriculum at the centre of the construction of what was to be called the 'Enterprise Culture'.

The implementation of *The New Zealand Curriculum Framework* (NZCF) (Ministry of Education, 1993a) as an extreme form of 'outcomes-driven structure' is one of the key mechanisms through which this Culture is nurtured. It prescribes the content of knowledge through learning outcomes for every section (strand) of every curriculum area and requires their continual assessment. Such models assume that all ends, (learning outcomes or achievement objectives) can be clearly stipulated prior to teaching, are seen in observable behaviours, and measured externally to give a supposedly true (objective) and accurate 'measure' of learning. More broadly, they emphasise the performativity of teachers and students and facilitate public judgement of them through the quantifiable results necessary for the operation of the education market-place. However, it is the stipulation of content and outcomes which drives pedagogy and emphasises continual assessment in the service of market choice. This scenario also changes

the role of the teacher to that of an implementor – an obedient technical functionary – because the opportunities for making professional judgements about content and direction are severely reduced.

The use of outcomes curriculum models occurs when economies are perceived to be underperforming and when states deem certain kinds of 'relevant' understandings and skills (usually linked to employment) mandatory for economic transformation (Beck, 1981; Marshall, 2000). They essentially enable states to designate the desirable characteristics of future citizens – to specify the desired *product*. The more particular the specification through the curriculum, the easier it is to determine the sorts of activities in which students must engage to gain the desired characteristics and skills (see Lee, O'Neill and McKenzie, 2004 for a detailed discussion on the politics of such models).¹

The use of such curriculum structures goes hand in hand with a second dimension which enhances the power of the state – the more overt control of knowledge and the politicisation of the curriculum, as the state takes a more vigorous interest in the production of particular kinds of workers and citizens. These changes were not simply an outcome of the wider change programme, they were absolutely integral to it and were informed by economic, rather than educational principles (O'Neill, Clark and Openshaw, 2004).

This paper demonstrates this second dimension of state control through a case study² which analyses the political, economically-driven nature and purpose of *Technology in the New Zealand Curriculum* (Ministry of Education, 1995). It argues that this curriculum has been a pivotal plank in the creation of this 'Enterprise Culture'. This case study demonstrates the importance a contextual, critical and theoretically rigorous curriculum and education studies *can* and *must* play within teacher education. It enables some acknowledgement of the complexity of the theoretical, epistemological, philosophical, policy, political and pedagogical issues underpinning fifteen years of curriculum and education change. These changes now permeate and shape every minute aspect of the school environment. An understanding of them requires an understanding of the wider social structures, forces, pressures and processes out of which they were born and which they reflect and sustain. This can be gained through the theoretical and conceptual frameworks and tools of the sub-disciplines of educational studies. However, this is the very knowledge that many teacher educators do not understand, refuse to recognise its importance, and often seek to keep from teacher education students.

Teacher education is a large and robust area of analysis in international scholarship (Beyer, 1996, 2000; Beyer, Feinberg, Pagano and Whitson, 1989; Darling-Hammond, Wise and Klein, 1995). However, debate on such matters in New Zealand by teacher educators is minimal. While this paper cannot canvas this literature nor set out a programme of reform, it makes a case using the knowledge we have in curriculum studies (O'Neill *et al.*, 2004) for a more rigorous, analytical, contextually and intellectually informed teacher education. In merged Colleges of Education the struggles around access to students and their curricula are intense, but are rarely openly discussed. Usually they are won through the sheer weight of the numbers of those who seek to maintain the status quo. Consequently, the retention of content-focused 'how to', techniques-based courses organised around the Curriculum Framework prevails. These courses enable students to retain high levels of ignorance about the political and contextual forces enveloping the curriculum and more widely affecting education. This paper argues that such a blatant form of anti-intellectualism could be seriously challenged through the use of educational studies as the foundation upon which teacher education is based.

Enterprise Culture and the New Zealand Curriculum Framework

The following section discusses the policy and ideological platform from which the National Government sought to initiate curriculum change. National's vision of an 'Enterprise Culture' was borrowed from Thatcher's Conservative Government (1979-1997) in Great Britain. Locally, its origins can be sourced to the Porter Project, controversial and costly research directed by the Harvard Business School's

Michael Porter. *Upgrading New Zealand's Competitive Advantage* (Crocrombe, Enright and Porter, 1991) argued that our global economic competitiveness could be improved through the use of technology and skills rather than a traditional emphasis on academic education and the development of primary resources. Its strong neo-liberal prescription advocated further deregulation, privatisation and cuts in welfare. Its blueprint for economic growth provided one of the policy foundations for the National Government. Of the project's significance for education and its role in establishing this Culture Peters (1992: 63) has written its:

...ideological function is, perhaps clearest ... where it has been referred to as a buttress for launching the Government's so-called 'achievement initiative' including the national curriculum. In particular, the Minister of Education has referred to the Porter Project to warrant claims concerning: the way 'imperatives of the modern world require a new culture of enterprise and competition in our curriculum'; the need to give greater emphasis to core areas, including a new subject called 'technology'; greater recognition of the new technologies; and emphasis on skills development at the expense of a traditional concern for knowledge and understanding; the concern for academically competitive academic standards.

The most fundamental purpose of the development of this Culture was the stimulation of our global economic competitiveness. To achieve this competitiveness, the entire society, culture and the fundamental nature of individuals was thought to need *reorienting* to become more competitive and enterprising. This required the expansion of free-market activity into all private and public domains – all social and cultural practices, at an institutional and personal level, including modes of organisation, understanding, expression, signification, value and pleasure. This implied changes to some of the most basic notions we have about ourselves and our world. Essentially, it sought to remodel individuals – to change the hearts and minds of the population to get us to *reshape* and *reconstruct* ourselves as people who thought and acted with 'enterprise'. Unashamedly it is the notions of the 'consumer', our precious sovereignty and the activity and processes of consumption, which dominate this vision. Consumer sovereignty is, of course, a total fiction given the massive global manipulation (e.g. marketing and branding) of consumer desires by capital (Klein, 2001). The ubiquity and hegemony of this vision within Aotearoa New Zealand should not be underestimated nor should the importance of the school curriculum which lay at the heart of this reconstruction (Peters and Marshall, 2004; O'Neill and Jolley, 2004).

Enterprise discourse *de-emphasised* collective policy objectives, encouraged personal choice, advantage and responsibility. In short, people needed to act and 'be' enterprising and the school and curriculum should promote this attitude and action. At one level this sounds quite reasonable. However, the motivations and qualities encouraged (e.g. initiative, drive, energy, independence, boldness and risk-taking) were referenced exclusively to narrow commercial forms. This discourse implies an actual relationship between the practice of enterprising behaviour, education, commercial activity and economic growth. There is no academic evidence to substantiate this position. However this discourse has ensured huge changes to the way we understand, practice and evaluate education – it had in the past been driven by social and cultural objectives (e.g. social equality). It now needed to refocus on economic growth and responsiveness to business and industry.

From the beginning of the 1990s, National began a series of educational initiatives to promote the development of this Culture. These ranged from the establishment of an Enterprise Council to the sponsoring of school enterprise schemes. Two conferences – the Enterprise Conference and the Education for Enterprise Conference were held in 1992 to forge links between education, business and industry. The latter suggested ways to improve the responsiveness of schools to the needs of business and one of its themes was the need for business to have a greater say in the curriculum. Other foci included schemes to enhance competition and business influence and the need for an enterprise curriculum (Peters, 1992: 65; Peters and Marshall, 2004: 117).

A curriculum responsive to commercial, economic and competitive pressures had been advocated by the New Right and corporate interests from the mid-1980s. By 1990, National felt ready to elevate this to the centre of their 'vision' and policy-platform, clearly signalling the overlapping of educational and economic concerns. In a much-quoted speech, their Minister of Education argued that curriculum reform would "bring our schooling system into line with the needs of the 90s and the 21st century and the imperatives of the modern competitive international economy" (Ministry of Education, 1991: 3). This vision, and the role of science and technology in it, were to become Lockwood Smith's central themes as Minister of Education (Peters, 1992: 59). In her 1991 Budget speech, the Minister of Finance spoke of "a strategy for enterprise" endorsing this vision and the development of competitive and innovative skills (Richardson, 1991, cited in Peters, 1992: 59). This 'strategy' and its clear implications for education were further spelled out in the Minister of Education's now famous Budget statement imploring educationalists to embrace a "new culture of enterprise and competition in our curriculum" (Smith, 1991: 1-16).

Case Study: The Technology Curriculum

As the previous discussion indicated the curriculum subject of Technology was to attain a 'special' place in the cultural transformation required by National. Technology became one of the seven essential learning areas (Ministry of Education, 1993a) and, along with Mathematics, Science and English, it constituted the Ministry's Achievement Initiative, an attempt to refocus on the 'basics' and further National's vision. The development and nature of this 'new' subject cannot be understood unless it is placed at the heart of the National Government's (1990-1999) reconstruction project. Far more than any other subject in *The New Zealand Curriculum Framework* (1993a), *Technology in the New Zealand Curriculum* (Ministry of Education, 1995) has been fashioned by this agenda and as such, its content and pedagogy are highly political and educationally contestable. Snook has called this curriculum ideological in the strongest sense, "...since it sets out to create a new kind of person for a society engineered towards certain interests which are presented as neutral and inevitable" (Snook, 1997: 5).

To understand this curriculum, its development and its inherently political nature one has to invoke an analysis far wider than a "how to implement its content" approach. The supposed economic spinoffs that this subject would generate for the economy (not verified by any academic analysis) drove its development and were the sole *raison d'être* for its introduction. Consequently, the basic ontological, epistemological and pedagogical foundations of this curriculum are not only highly problematic, they are ethically and morally bankrupt (O'Neill and Jolley, 2004) as this paper demonstrates. This subject is underpinned by what is called a naïve technological determinism (the assumption that technology is always inevitable, progressive, and politically and socially neutral) (MacKenzie and Wajcman, 1996). The forms of technological literacy and capability it embraces, elevate, in good 'Kiwi' tradition, a 'how to do it' approach (the technological development model) rather than a critical 'ought we to' one, which would examine the contexts and effects of technology. The foundations and practice of this new curriculum can be juxtaposed against a critical 'social shaping' approach to both, which locates technological production in the values and power structures of its culture. However, *Technology in the New Zealand Curriculum* (Ministry of Education, 1995) promotes a crude form of 'training' or 'industrial pedagogy' (Stitt, 1996) through an uncritical induction into commercial development models and production processes. In doing so, it disempowers and deskills students (O'Neill and Jolley, 2004).

Quite apart from the foundational questions underlying this curriculum (examined later in this paper), we need to ask how a subject, over which there was contentious international debate and which was still in the early stages of conceptual development, and without either a strong national educational lobby or "coherent subject subculture" (Compton and Jones, 1998: 152), could gain such a rapid entrée and foothold in an over-crowded curriculum? It is clear that through monitoring international initiatives the Ministry of Education had promoted technology's development from the mid-1980s (Brown, Benson and Ferguson, 1999). In an important analysis, Davies (1998) argues the catalyst for this was the

reorganisation of science and technology in support of economic goals, in the mid 1980s.

The early policy documents legitimating the development of this curriculum, clearly demonstrate its primary role in nurturing economic growth. The widely circulated *Technology Education Policy Papers* (Ministry of Education, 1993b), written by the curriculum authors, set out the six grounds for development as economic, pedagogic, motivational, cultural, environmental and personal. The heading 'An Economic Argument' is placed ahead of all others and in an endorsement of the 'Enterprise Culture' calls for the development of enterprising people to enhance economic productivity and for firmer links between schools and businesses:

Business and the wider community have expressed the need for education to develop people who are creative, innovative and resourceful and who can combine enterprise, initiative and imagination with knowledge and skills ... Our economic future depends on developing product and market niches. This argument points to the value of the interaction of school students with the commercial world. This could provide students with real problems to solve and could provide business with a better understanding of education in schools (Ministry of Education, 1993b: 1).

Astonishingly, these *Papers* make no recourse at all to analytical work from the philosophy, sociology and history of technology or technology education. They provide no substantive justifications for its introduction and are a collection of unsubstantiated assertions, claims and justifications celebrating technology and its power to enhance the world, learning and the curriculum. However, they are written at such a general (almost facile) level that they make a mockery out of serious educational justification. The economic instrumentalism (the direct links between business, creativity, technology and wealth creation) so prominent in these *Policy Papers* is tempered in the curriculum documents but emerges in its teacher support materials.

Curriculum Structure

Technology in the New Zealand Curriculum (Ministry of Education, 1995) identifies seven technological areas: materials; information and communication; electronics and control; biotechnology; production and process; structures and mechanisms and food technology. Schools can choose which technologies they teach. Throughout all levels suggested minimal numbers are given for the areas to be covered. These range from four at Years 1 to 3, through to six at Years 9 and 10. The curriculum is organised through three inter-related learning Strands containing sets of Achievement Objectives running across all areas and contexts. Strand A: "Technological Knowledge and Understanding", focuses on the operating features of technological processing and production systems. Strand B: "Technological Capability", provides activities to solve technological problems using information from Strands A and C. Strand C: "Technology and Society", provides an opportunity to focus on this relationship. The broad aim of the curriculum is the development of "technological literacy" – supposedly achieved through units of work which draw on achievement objectives from each of the three Strands.

Strand C: Technology and Society

It can certainly be argued that the technology-society relationship can be critically examined in Strand C. Indeed its rhetoric makes the right noises:

Understanding the nature of the relationship between technology and society is vital to technological practice. Technological developments arise from within society. No technology is 'value free' (Ministry of Education, 1995: 41).

However this Strand is demonstrably under-emphasised in the document (e.g. there are forty Achievement Objectives for Strand A, forty for Strand B and just sixteen for Strand C). This is also true of the teacher support materials. The continual need in the curriculum examples to identify "needs, wants and opportunities" and "the problem-solving approach valued in enterprise" exacerbates this de-emphasis.

Uncritical links to the *real* world technological contexts of commercial enterprise/production (and their stringent design and marketing processes to maximise profit) are pervasive in the document. Recent research (by the curriculum authors) also verifies that this is the dominant approach to the teaching of technology. The Capability Strand has the most weighting in practice, with a teaching emphasis on the production of technological solutions (Moreland and Jones, 2000: 291). Technology education is clearly viewed by teachers as the processes of 'designing, making and testing'. The few examples of activities given for Strand C do not look at context widely (nor critically) but focus superficially on certain issues within the narrow realm of the specific example (e.g. for Recycling and Waste Disposal, Strand C suggests discussion of why such systems are necessary and suggests people are asked for their 'views' about them). Thus there is virtually no evidence in this curriculum statement of substantive critical examination of *any* features of the nature and development of technology nor of the need for constraint in its growth. This curriculum is, like the definition of technology it embraces, primarily a vehicle to impart the supposedly 'value neutral' skills through which to 'do' commercially-based technology.

At the core of this curriculum is a particular view of technology and the technology-society relationship. While the page of discussion defining technology says it must be understood in a social context, its nature is primarily defined throughout the document and in its pedagogical approach and lesson content, as an *instrumental* process which *acts* on or *does* things to the world to enhance and enrich it. This utopian (Segal, 1988) view of technology's relationship to the world assumes all problems can be solved and all needs can be met by it, to create 'the perfect citizens and a perfect society' and is dominant in Western culture. It also emphasises technology's 'functional efficiency' (its speed, economy and ease) in our lives in what can be seen as a 'value free' manner. There is a certain seductiveness and 'truth' in such a view. Of course all manner of simple and complex technologies enhance our lives (e.g. creams preserve our skin, and hydro-electric power systems provide electricity). However their very nature and their use reflect the embodiment of particular values. Many technologies have effects and 'spin offs' which also shape peoples' lives and our world which are not all 'good' (e.g. chemicals in many products can poison us and power generation systems can devastate communities and cause environmental degradation).

However, what has been called the "use/abuse model" (Wajcman, 1991) of technology embraced by this curriculum, ensures that the ethics, values and morals underlying its nature and effects are de-emphasised and frequently ignored. This view endorses the political and economic status quo because it upholds the dominant model of economic growth on which it is based (and its exploitation of natural resources, perpetuation of global poverty, loss of species, ecosystem disruption, environmental, cultural and social degradation). The determinism which often accompanies such views sees technology as a process independent and outside of society, and at its most extreme, ascribes a primary and causal role to it in bringing about social change (MacKenzie and Wajcman, 1992). This assumes that while humans always master technology we are essentially *dependent* on, *defined* and *enhanced* by it. Such views imply we do not actively shape scientific, technological or business practices by imposing cultural or social values on their nature or methods. Humans simply conform to and are shaped by them. Such views are blatant manifestations of instrumental reasoning or forms of technocratic rationality (Habermas, 1971).

Technological Literacy: Literacy for disempowerment

The dominant understanding of "technological literacy" in *Technology in the New Zealand Curriculum* (Ministry of Education, 1995) is closely linked to the politics and economics of the New Right and neutrally portrays it as the "ability to use, manage and understand technology" (Petrina, 2000: 181). For example, in the curriculum there are nine listed attributes of literacy and all except one, which refers to "the inter-relationship of technology and society" (Ministry of Education, 1995: 9), emphasise the uncritical and progressive operation and mastery of technology over society. These functional approaches to technological literacy emphasise it as a set of abstracted, value-free skills which can be defined, measured and learned, and which are functional to personal and economic development (Petrina, 2000).

Accompanying this notion of literacy is that of "technological capability", the potential for "efficient, practical, quality work in design" (Petrina, 2000: 181). Kimbell's (1991 cited in Kimbell, Stables and Green, 1996: 25) model of capability underpins our curriculum and "provides the bridge between what is and what might be ... it mediates ... the gap between human aspiration and technical constraint". In practice it is based on a means-end or instrumental approach to 'doing' technology and learning its skills through the development of technological problem-solving.

Petrina's (2000: 186) important analysis traces the use of both concepts as key components in New Right policies to buttress the global economic supremacy of the United States. Indeed technological development is popularly assumed to be one of the drivers of economic growth, global trade and closer to home, the Enterprise Culture. 'Technological literacy' has become a key part of the political and ideological strategies used around the globe to cultivate individuals to work for these ends – the kind of self-driven and enterprising people National sought to cultivate. It provides a bridge between the New Right ideology of economic competitiveness and educational/curriculum change (Petrina, 2000). Technological literacy, like all literacies in education, is popularly and uncritically portrayed as a learning process which is autonomous, politically and educationally neutral and devoid of context. However, like all literacies, it is none of these things. It uncritically inducts students into being effective (read accepting and functional) users of technology while strengthening the ideological links between technology and the dominant notions of *progress* and *growth* which sustain this market-place.

The Social Shaping of Technology: Critical technological literacy

In response to this impoverished orientation to educational technology those who seek to analyse it critically, contextually and ideologically, draw on a large body of work from its philosophy, sociology and history (MacKenzie and Wajcman, 1996; Pacey, 2001). This 'social shaping approach' examines the technology-society relationship as complex, multifaceted and deeply enmeshed within values, morals and ethics. In the classroom it moves beyond skills-based utilitarianism to locate the teaching of technology and all 'making' as socially and culturally embedded in a way of life. A sole focus on problem-solving and design processes cannot ensure this. A critical approach implies that teachers must examine the role of values, morals and ethics underlying the current uses of technology and its power to inflict harm.

This, of course, implies that teachers are academically equipped to do this (i.e. it requires a theory of society, structural inequality and power relations). The curriculum authors' more recent research confirms their earlier analysis (Jones and Carr, 1993), that teachers are still struggling with the implementation of the current curriculum and that technological practice and assessment are not well understood by them (Jones and Compton, 1998; Moreland and Jones, 2000). *Technology in the New Zealand Curriculum* (Ministry of Education, 1995) nurtures uncritical consumers of mass-produced products for the 'mindless' consumption of goods we do not need. Most centrally though, this curriculum disempowers students because it deprives them of journeying into the deeper realms of understanding, through examination of technology in relation to the power structures of the society of which it is a part and which it upholds.

Forbidden Knowledge: Teacher Education

The remaining section of the paper considers the previous case study in the light of the dominant focus of teacher education in this country. It is broadly informed by the work of national and international scholars (Beyer, 1996, 2000; Beyer, *et al.*, 1989; Snook, 2000) who advocate a teacher education grounded within the critical, contextual study of education – that which is provided by the sub-disciplines of educational studies.

Popular Images of Teachers

It would seem to be a truism that the diverse, increasingly political, demanding and complex nature of what teachers 'do' and the daily processes within which they are enmeshed, would be theorised in their

preparation for entry into the profession. This would seem to be doubly important given the sustained criticisms that have been made of teachers (and the education system) over the last fifteen years – by the state and the New Right in their attempts to justify restructuring. From the late 1980s the ‘system’ was analysed as an *interposition* or barrier between parents/consumers and schools (New Zealand Treasury, 1987). As part of this, it was argued that teachers had ‘captured’ education for their own selfish ends, through their working conditions and their professional input into processes such as curriculum-making.

Two dominant stereotypes, or what O’Neill (2003: 4-5) calls “enchanted images” prevail professionally and popularly about teachers’ work. The first regards the teacher as a technician, performing (correctly) within a narrowly defined framework of possibilities (e.g. standards, performances, responses). This is a low trust, high accountability approach which prescribes and monitors teachers’ work. The second, is the romanticised concept of the teacher as an artist, professional and/or creative and inspiring expert. This is the converse of the above, a high trust, low accountability model. While both images have divergent origins and histories, both embody normative and idealised understandings of teaching which assume that the *more* work teachers *do*, the *better* they will be as teachers. Neither captures the complexity of the day to day realities of teaching nor empowers teachers to do so. The hegemonic construction of teachers as ‘selfish capturers’ by the state and the New Right, has now been replaced by the first enchanted image as the dominant vision of teaching. This image has some grounding in reality. It reflects the fundamental assumptions and precepts underpinning the change programme and the state’s current attempts to standardise and regulate quality within the sector (Ministry of Education, 2004). The key point about such images is their political function. While emphasising selected aspects of teachers’ work they also de-emphasise or deflect our gaze from the real nature of the changes, the concerted attempts to align education to the service of the economy and the effects of the reconstruction of teachers’ work towards this end.

The Marketisation and Commercialisation of Education: The complexity of teachers’ work

In acknowledging the hegemonic role of the first image – the teacher as performer and assessor – and advocating a research agenda to study the *effects of current policies on teachers’ work*, O’Neill (2003: 8) maintains that we need to revisit key educational ‘questions’. These questions are located around the three compass points which anchor teaching: purpose; conscientiousness and rigour. ‘Purpose’ is the reality that education is a far more complex process than the imparting of skills or achievement objectives. ‘Conscientiousness’ refers to the long hours worked and the increasing breadth of the expectations placed on teachers and schools. ‘Rigour’ involves teaching for understanding rather than the regurgitation encouraged by outcomes-based models and assessment-driven pedagogies.

The three compass points have been profoundly changed and reshaped by the effects of current policies, which have ensured that a raft of complex pressures, forces and dynamics now impinge upon teaching. These can be summarised as:

- The massive *intensification* of teachers’ work.
- The treatment of teachers in increasingly *disrespectful*, *distrustful* and *suspicious* ways under the guise of accountability.
- The associated process of the *deskilling* of teachers who are reconstructed as *technicians* rather than professionals or intellectuals.
- The emphasis on *managing* and *controlling* teachers and the *closing down* of spaces for debate and democratic decision-making (e.g. the privatisation of curriculum-making).
- The fostering of *competition* within and between schools.
- The *vocationalism* of the curriculum.
- The abandonment of a discourse about *education, social justice and affirmative action* (Smyth, 2001: 12-13).

These features have resulted in the proletarianisation of teachers’ work (Codd, 1998) and are antithetical to the traditional conception of a liberal education. Furthermore, they impede the development of critical, analytical capacities in teachers and students, genuine pedagogical relationships and attempts to capture the complexity of teaching. Indeed, the curriculum structure and the content, focus and pedagogy of the technology curriculum are “forms of governmentality” (Foucault, 1981) which frame, shape and control individual behaviours on behalf of the state and dominant elites. They provide the parameters in which teachers and students are able to act, respond to and resist the discourses within which they work. This is how social and political governance is firmly embedded into the nature, content and operation of the curriculum. It is also how economic forms penetrate into our cultural, social and educational forms and how the very basis of our human subjectivity occurs.

Current Programmes

In order to respond effectively to politically and economically inspired curriculum changes and to the reconfigured nature of teachers’ work, teachers *must* understand their origins, nature and purpose. Teachers must be able to publicly deconstruct the dominant images and discourses that shape practice. The case study above sought to do this by uncovering the political, social, economic and cultural forces driving change.

Sadly though, the vitally important ‘questions’ around change, which we might expect teacher education students to consider, are rarely discussed nor debated among many College of Education staff. Nor are students inducted into a sustained consideration of such questions through programmes which regard the theoretical and epistemological foundations of fifteen years of change, its effects and wider purposes, as important knowledge for teachers.

Indeed, the consensus among many teacher educators is that the kind of critically informed analysis, such as that set out in this paper, is not *useful* knowledge for teachers and, furthermore, it is irrelevant to the ‘practice of teaching’. Many primary (and secondary) teacher education students throughout the country will emerge from their degrees knowing very little or nothing of the specifics of the politics analysed above. This is because most pre-service programmes do not problematise the philosophical, theoretical and epistemological foundations of the school curriculum, the nature of the knowledge imparted through it, the structures in which it is encased nor the wider politics it reflects and upholds.

The main obstacle to inducting College of Education students into such an understanding and appreciation of their world, their future work and the external structural and political pressures that shape it, is the dominant *modus operandi* of teacher education. This is framed against an historical background of development in this country which Openshaw (1998: 100-103) argues was characterised by a “narrow approach adopted in a culture of constraints and controls”. Furthermore, this development was bereft of free and frank discussion about the real issues and concerns underlying the professional preparation of teachers (Openshaw, 1998). Internationally, the foci of teacher education programmes has been broadly characterised as embracing one of four (non-discrete) conceptions of teaching – as a craft, labour, profession or art (Reid and O’Donoghue, 2004). The current focus of most undergraduate teacher education courses in this country embraces what Snook (2000: 146) calls a “practical craft model”, centered on classroom practice and meeting children’s needs. Snook argues that while some teaching methods and the ability to control children are emphasised, the *uncritical* induction of students into the content (and structure) of *The New Zealand Curriculum Framework* is the main focus of these courses. He maintains that “while this model stresses some important aspects of the teaching role ... it is limited and quite inappropriate for the challenges ahead” (2000: 146).

Ironically, a number of teacher educators still cherish a vision of O’Neill’s (2003) second image of the teacher as “creative inspirer” (which regards teaching as an art) to nurture their professional practice and that of their students. The reality of most current programmes in this country is quite different. By their

very nature they primarily produce teachers who become obedient performers and implementors, or technicians seeking the 'correct' skills or methods through which to practice. This is opposed to a focus which emphasises teaching as immersion in a "learned profession" (Snook, 2000: 146; Codd, 1998). According to Snook, (1998: 138) the current dominant approach to knowledge and pedagogy in teacher education narrowly emphasises the:

- Role of the teacher in meeting children's needs (which differ individually and collectively);
- Their 'understanding' of children;
- Need for effective 'practically' based teaching methods;
- Need for detailed familiarity with the contents of curriculum documents; and
- Ability to control children.

This focus is also overlaid by the dominant discourse of 'reflexivity' which seeks to immerse the student in *reflection* upon themselves as professionals. However, by and large this process occurs among students who have little sustained knowledge of the cultural, social, historical and political contexts in which they live and work. Furthermore, they have limited conceptual tools, frameworks and theoretical or political understandings through which to attain such knowledge. Coupled with this, many adopt or are inducted into a mindset which regards the consideration of such matters as completely extraneous to teaching. However, without immersion in the politics and knowledge of the kind outlined earlier, and the subsequent understanding that reflection must be both critical and contextual, reflexivity becomes a farcical notion and an empty process of navel-gazing or detachment. This is clearly demonstrated in the response given to a question asked of a 'fourth' year (equivalent to a graduate in other university courses) College class in 2003. When asked what the welfare state was, no one could answer. Surely this is a sad indictment on the preparation process for students in their fourth year of preparation for entry into the paid workforce of the welfare state.

Indeed, such responses in the context of the dominance of the "craft model" (Snook, 2000) substantiate Renwick and Vize's (1990-1991: 131) damning analysis which found that teacher education students entering teaching in the early 1990s had no insight into the economic, cultural and educational reforms of the previous decade, no understanding of the political rationales for such reforms nor any methods for critically examining them. Snook (2000: 146) maintains that this shows that within such programmes the school system (old or new) was simply taken as given, and students were expected to work uncritically within it.

The Social and Cultural Context of Pre Service Teacher Education

In the current context, the concerns of many teacher educators, particularly former University staff, are 'silenced' by a number of factors. These include a sensitivity towards teachers during the last decade of 'teacher bashing' and an awareness of the role of this denigration in legitimating change. Broad debate is made all the more difficult in New Zealand because of a small population, the massive upsurge in the monitoring and auditing of teachers' performance within a "culture of mistrust" (Codd, 1998), the 'anti intellectual' nature of much educational discussion, the continued reinforcement of the theory/practice divide by many commentators and the frequent domination of debate by the Right and business. All these factors mitigate against the development of non-personalised, wide-ranging and academically rigorous discussions on foundational educational matters in Aotearoa New Zealand. An integral part of this context is the failure of senior academics to lead and drive discussions on key educational issues, our failure to critique and disseminate research findings (and their wider implications) for teachers and parents, and our dismal record in challenging the overtly ideological/political position of the Ministry of Education.

Commercial pressures in the current market-driven environment also impinge in this situation. Cut back from four to three years, teacher education courses compete in a saturated market of thirty-four

providers offering nearly one hundred programmes. All seek the patronage of upgrading teachers and falling numbers of pre-service students in an over-saturated labour market. Open discussion on the weaknesses of such courses is not welcomed by the managers who must sell them in a context of over-supply. Thus the politics of 'middle class politeness' around the academic quality of teachers, teacher education students and the content and quality of their curriculum, prevails publicly, just as it does privately, in Colleges of Education.

Furthermore, the academic quality of a significant number of teacher education students and the skills and analytical capacities they bring to their learning are highly marginal. The high drop out rates, the remedial courses continually offered to students to enable them to pass in these programmes and the numbers of students who resit various years of the programme are sad evidence of this. For many of us working with such students, the marginal literacy, conceptual and comprehension skills of significant numbers are at best astounding and at worst frightening. The culture among many former College staff is one in which the need to maintain a kind of mateship and popularity with students is important and this often mitigates against bringing such matters to the sustained attention of students and their open examination both within courses and in relation to wider programme content.

Official Responses

Over the last few years, concerns over the nature of teacher education and the academic adequacy of teachers have emerged publicly. In September 2004, the Education Review Office (ERO) made a sustained attack on teacher preparation and quality. They argued that 48 per cent of year two secondary, and 35 percent of primary teachers, do not meet required levels of competence in subject knowledge, teaching skills and ability to engage students of differing ability and cultural backgrounds (Eduvac, 2004: 3). A New Zealand Teachers' Council Report presented in June 2004 (not yet publicly released) raised serious concerns over pre-service courses including their poorly developed conceptual frameworks, narrow programmes and non-alignment with the curriculum (Grunwell, 2004: A4). Concerns reached the highest levels of Government in 2003 with a Parliamentary Select Committee Inquiry.

It needs to be remembered that state organisations like ERO have in the past been found to embrace a number of educationally bankrupt assumptions about the qualities required in 'capable' teachers (Clark, 1998; O'Neill, 1998). In the current neoliberal context, attempts by the state to stipulate narrow competencies, professional practices and outcomes for teachers are part of a more sustained attempt to survey, technicise and thereby further *control* our daily work (and our professionalism). An interesting feature of this public debate is the continued absence of an academically informed, unified, professional 'voice', not only defending teacher education and quality, but encouraging wide-ranging and honest conversations about it, and advocating programmes that will prepare teachers for work in a society that is increasingly fractured, complex and controlled by anti-democratic forces. A continued absence of debate and professional leadership in this area will enable the state to continue to uphold and apply the narrow, technicist 'professional standards' approaches to the work of teacher education.

Conclusion

The Wider Contexts of Knowledge, Teaching and Learning: Do teachers need to understand these?

One of the key features of the changes outlined above has been the deliberate exclusion by the state of teacher participation in these changes. This situation was exacerbated because many teachers were unclear about the real nature of, and forces behind, change. As this paper has argued, structural and content changes in curriculum are partial responses to global capitalism, attempts to attract overseas investment and to compete in global markets. While many teachers might not be interested in such dynamics, we *must* engage with them in order to understand our work at its most basic level, and to take our rightful place in leading public debates on change. It is only with such understandings that we will be empowered to provide alternatives to politically and economically-driven agendas, rather than to become technocratic functionaries of their implementation.

Even a very brief acknowledgement of the breadth of the contextual politics analysed in this paper reveals it is not just a matter of simply 'mentioning' them to students, referring them to the literature, nor teaching this material divorced from a sustained induction into its frameworks and concepts. While a common cry from many College educators is that their strength lies in their understanding of the contextual aspects of teaching, this is *not* the same thing as a systematic induction into, and developing in students a contextual and foundational knowledge through the concepts and frameworks of the *academic study of education*. This knowledge is available through the sub-disciplines of educational studies, which students could access if there was the *political will* to ensure they did so. However, a grounding in this study is not attained in one paper in one semester. Students need systematic induction into the key foundational³ and wider areas, over a period of years, by academics working and writing in their respective areas of expertise.

Educational Studies

Educational Studies is constituted by the sub-disciplines of educational philosophy, sociology, history, psychology, human development, curriculum studies, gender studies, ethnic studies, foundational and comparative studies, new technologies, computer studies, special education, cognition and learning and early education studies. The need to more fully integrate analyses of political and cultural globalisation, gay and lesbian/queer studies and the economics of education could easily be accommodated within or alongside these sub-disciplines.

Furthermore, as the above case study illustrates, educational studies is not only about critique (as some people mistakenly think). It is characterised by, and inducts students into, "conflicting points of view, engagement with contrary interpretations and an openness to alternative scholarly traditions". These are "ideally, hallmarks of the field" (Beyer *et al.*, 1989 cited in Beyer, 2000: 24). Indeed this overarching field is one in which the philosophical and moral values, and social, political, cognitive, psychological and practical *struggles* over education can be acknowledged, analysed, debated and understood. This generally occurs through conceptual and analytical frameworks which locate the study of education in the wider context of its society, and which all educative processes are understood to either reflect, reproduce and/or challenge. Such courses have never been an integral part of teacher education, although students who undertook a fourth year of study after a three year pre-service course could take such papers. In the environments of the newly merged Colleges of Education and University Education Departments, education studies courses frequently play no part in pre-service programmes or are available as singular selected options. Moreover, many former University academics remain marginal to such programmes. Thus the wishes of those who seek to retain the current hegemony in teacher education prevail because of their sheer dominance in numbers.

In New Zealand, as in other parts of the world, those who have sought to analyse education in the deeper way offered through its academic study, particularly through its critical avenues, have frequently been 'written off' as purveyors of particular political stance(s) (e.g. neo-Marxists, socialists and/or radicals) and discredited by those who regard education and their own opinions as apolitical. Such discourses exist in Colleges of Education as in wider educational circles. However, the sophistication offered through the tradition of critical/contextual analyses of education, could not be further from the nature of political propaganda. While such work challenges what Habermas (1971) called the "ideology of niceness" in education, unlike "grand theory" it makes its politics and its interest in the issues of power, social justice and democracy, clear at the outset.

Indeed, an extensive American study examined the nature of two different teacher education programmes in two liberal arts colleges of a similar size, with students of similar characteristics. It did so by analysing the nature of thinking and modes of operation of their graduates (Young 1996, cited in Beyer, 2000: 39-40). The 'Foundations College' focused on the moral, social, and political issues and realities in and outside of schools (covered in the foundational courses of educational studies). The 'Methods College'

reflected the hegemonic approach to teacher education adopted in this country. Echoing Beyer's (1996) work, this study found that graduates had markedly different values and perspectives on schooling. The Methods College students were not imbued with a broader conception of education, were unconcerned with the context in which their work was embedded and were uncritically focused on the best way to achieve ends and solve problems defined for them elsewhere (Young, 1996: 153-56 cited in Beyer, 2000: 40). The Foundations College students were interested in the questions of purpose, meaning and context underlying their practice. They valued their programme because it:

... challenged them to think critically about the larger 'whys' [sic] behind what is done in their classrooms and in schools overall and ... to reflect on what should be and why. They valued the broad historical, sociological, and especially philosophical background and orientation that was nurtured ... Their grasp of the historical and cultural underpinnings of the educational system provided 'a significant counter-framework for envisioning what is possible rather than simply accepting what is probable' (Young, 1996: 153-56 cited in Beyer, 2000: 40).

Young's (1996: 153-56 cited in Beyer, 2000: 40) work has demonstrated that immersing students in the deeper subtleties and nuances of the complex work they are involved in, empowers them well beyond the realm of technique and an unquestioning acceptance of the Curriculum Framework. As this paper has demonstrated, curriculum processes are now integral to the politics of neo-liberalism, economic rationalism and globalisation, the forces of which have shaped public policy in Aotearoa New Zealand since 1984. We have the means through which to enable students to understand these forces on our 'doorstep' through the *academic study of education* and our degrees in educational studies. It is time we used this knowledge to provide educational leadership in this country and make exposure to it mandatory for all our future teachers.

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1 Outcomes models can accommodate and assess technical knowledge, conventions, rules and procedures, very effectively because they accommodate a focus on the practical or 'knowing how' approach to knowledge. However, they trivialise learning and 'education' (Smith and Lovat, 2003: 119) and theoretical, analytical or critical understandings of 'knowing that' (Peters and Marshall, 2004: 111). They are unable to easily accommodate the processing of more complex knowledge requiring thinking that is creative, diverse, problem-based, individual and open-minded. Elley (2004) argues that the rigid encasement of the NZCF in an arbitrary eight level structure has no basis in curriculum, learning theory nor teachers' experience. The overwhelming absence of a theoretically rigorous research base on the benefits to students and teachers, of arranging the curriculum in this way, has been demonstrated consistently internationally (Broadfoot, 1996; Goldstein and Lewis, 1996; Hyland, 1994; Lum, 1999). Elley (2004) also warns that a focus on measurable (often superficial) skills may result in a de-emphasis on important long-term, more difficult goals in education. These often underlie classroom activities such as inferential reading, comprehension, creative writing or critical thinking. Darling-Hammond's (1994) American work has also demonstrated that an emphasis on outcome-driven teaching inevitably leads to less emphasis on higher-level thinking objectives and greater degrees of 'coaching'. Outcomes models also construct learners instrumentally as *objects* and as *passive* rather than active beings – a person to be controlled, directed, moulded and evaluated rather than one with whom learning occurs through a co-operative, reciprocal and dynamic interchange. They take power away from learners and give it to teachers and particularly to those who construct the outcomes – those to whom teachers are accountable. Research into teachers' planning has found that while teachers do make plans, it is a more complex process than such models assume. Emphasising the specification of objectives can make teachers less aware and less sensitive to student needs. Teachers' beliefs about what they do are vital and their mental images or plans are most important for practice. However, the most important factor for teachers is information about learners and their abilities, interests and beliefs, rather than specified learning objectives (Clark and Dunn, 1991; Zeuli and Buchman, 1988).

Notwithstanding their widespread adoption in many countries, outcomes models have been attacked by teachers' and academics on the grounds that they are theoretically weak, and that their implementation has been problematic, chaotic and miseducative (Broadfoot, 1996; Hyland, 1994). Teachers report that student outcome statements, indicators, profiles, and the levels structure not only add considerably to their workloads but fail to enhance classroom teaching and students' learning (Collins, 1994). In this country we know that the changes and demands of assessment are some of the biggest challenges of reform for teachers (Wylie, 1997) and that it is one of the major influences on curriculum implementation and learning (Carr *et al.*, 2000; Thrupp, *et al.*, 2000).

- 2 This paper draws substantially from two book chapters to which the author has contributed. These are Chapter One: Lee, H., O'Neill, A-M., McKenzie, D. (2004). "To Market to Market ..." *The Mirage of Certainty: An Outcomes-based Curriculum*; and Chapter Nine: O'Neill, A-M & Jolley, S. (2004). *The Technology Curriculum: Commercialising Education for Mindless Consumption*, in A-M. O'Neill, J. Clark, R. Openshaw (Eds), (2004) *Reshaping Culture, Knowledge and Learning: Policy and content in the New Zealand Curriculum Framework*. Palmerston North: Dunmore Press.
- 3 This term is used here in the broad descriptive sense. In relation to the politics and nature of knowledge and the content of educational studies it is a highly problematic term and does not imply an essential core of immutable knowledge.