Outcomes-based Education and the Cult of Educational Efficiency: Using curriculum and assessment reforms to drive educational policy and practice

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This paper is divided into five sections. The first section provides an overview of the politics of outcomes-based education and assessment from an international perspective. The second section traces the social efficiency origins of outcomes-based education, and explains the emergence of behavioural psychology and the resultant scientification of the school curriculum in nineteenth century America. The third section discusses outcomes-based education in England (following the introduction of the National Curriculum in 1988) and Australia. The fourth section explores the origins of outcomes-based education in New Zealand and its subsequent incorporation into the Curriculum Framework and National Qualifications Frameworks in 1993. The final section offers a detailed critique of outcomes-based education, and reveals the absence of a theoretically robust research base to support arranging the school curriculum and assessment systems sequentially in terms of measurable outcome statements and achievement objectives. The paper concludes that the (re)emergence of outcomes-based education is strongly underpinned by the stated desire of politicians, policymakers and education administrators to both monitor and improve 'standards of educational achievement' in schools at the same time as exercising greater surveillance and control over the professional work and lives of school teachers.

Introduction: Using curriculum and assessment to reform schooling

The different ways in which the school curriculum and assessment systems are organised, and the political and social processes that accompany them, have profound consequences for students' learning and teachers' work. As Michael Young (1971) argued, what and who shapes the school
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Curriculum are important questions because they involve the inclusion and exclusion of certain kinds of knowledge, ways of knowing, and world views. He concluded with the observation that:

[Those in positions of power define what is to be taken as knowledge, how accessible to different groups any knowledge is, and what are the accepted relationships between different knowledge areas and between those who have access to them and make them available (p.34).

While these are significant points, what is missing from Young's account is the reality that teachers' pedagogy is constrained by the form and philosophy of the curriculum. In other words, if the curriculum consists of broadly defined objectives, teachers are more likely to have sufficient freedom and opportunity to design learning programmes and strategies that are best suited to the needs of particular students in particular schools. Conversely, when the curriculum takes the form of specific task mastery imposed from without, the chances of teachers becoming rule-bound technicians are greatly increased. Thus what students and teachers know best are the kinds of expectations laid down in official curriculum statements and it is these expectations which invariably determine the style of classroom teaching and learning.

Apple (1990, 1995, 1996) helps us to understand better the political processes at work here when he observes that the school curriculum is not simply a neutral assemblage of knowledge somehow appearing in the texts and classrooms of a nation but a selection of what is deemed acceptable and legitimate knowledge. Being the end product of cultural, economic, political, and social conflict and compromise, the school curriculum reveals much about the differential power of some groups to define their knowledge as being legitimate while other groups' knowledge is marginalised or even excluded. What counts as knowledge, the various ways in which it is organised, who is authorised to teach it, and the various mechanisms by which students' acquisition of knowledge is evaluated all serve to highlight the patterns of domination and subordination in a given society.

Outcomes-based Education: The international context

Western education systems have routinely been subjected to substantial reform and change since the 1980s, all in the name of improving the quality and effectiveness of schooling. A key feature of this has been the (re)introduction of an outcomes-based approach to school curriculum and assessment reform in response to the demand from neo-liberals for greater educational accountability, a more rigorous monitoring of educational standards, and national and international benchmarking.
So successful was the drive for quantifiable educational results (or outcomes) that it came to dominate educational policy and practice discourse in the United States, United Kingdom, Australia and New Zealand by the early 1990s.

This has had a noticeable impact upon both the content and style of contemporary schooling in these countries. Having carefully identified and described the expected learning outcomes in minute detail, along with objective mechanisms to report and thus certificate students' achievements, administrators could then hold teachers accountable for the relative educational performance of their students. Without exception the prescription for optimal educational accountability has involved four key ingredients: the implementation of a national (or, in the case of Australia and the United States of America, state-wide) curriculum; the introduction of nationwide assessment strategies to monitor educational standards; the establishment of new external and centrally-administered school inspection (or audit) systems; and the publication of comparative results, usually in the form of league tables, of schools' achievement scores on national curriculum tests and public school examinations.

The adoption of these indicators internationally is firmly grounded in Lyotard's (1984) concept of *performativity* wherein the overarching political discourse of greater economic and social efficiency has subsumed that of education. This important shift has been accompanied by the publication of comparative school performance data (league tables), underpinned by the seemingly unshakeable faith that the accumulation of such data necessarily leads to significant (i.e., quantifiable) improvements in students' learning achievements and overall school effectiveness. A common currency which discloses the relative worth (or quality) of individual schools invariably emerges; albeit one that is narrowly focused on a comparative and ostensibly objective ranking of schools rather than one that seeks to identify the underlying factors that explain differential school performance.

This is not to deny the need for, and usefulness of, diagnostic measures for assessing students' achievements, nor does it minimise the importance of utilising school-level educational performance indicators that draw upon student achievement data. Rather, it is important to acknowledge that there is no single method (or measure) of student achievement that is capable of providing fair and statistically accurate comparisons both within and between schools. Moreover, given the specific economic, political and social contexts within which education systems operate, it is thoroughly misleading to argue that the compilation of students' scores on tests and examinations provides valid and reliable evidence by which to judge the...
quality of education systems nationally and internationally. Nevertheless, with governmental accountability pressures unlikely to lessen in the foreseeable future and the strong community demand for schools' league table rankings to be compiled and published, the most obvious and readily accessible measures of schooling outcomes (and, arguably, schooling efficiency) will be those obtained from assessing students' academic attainments.

The educational consequences for schools being labelled as ineffective (or failing) on the basis of their students' poor examination performance in a market-driven environment can be catastrophic: parents vote with their feet by removing their children and enrolling them in winning state (or private) schools. The blamed and shamed schools' rolls then decline further, thereby further eroding student and staff morale (Fiske & Ladd 2000; Goldstein, 1997; Goldstein & Cuttance, 1988; Goldstein & Lewis, 1996; Lauder, Hughes, & Watson, 1999). A similar pattern has emerged in New Zealand schools attended predominantly by working class, Maori and Pacific Island students where the discursive polarisations of good and bad results have come to be associated with rich and poor schools (Ainsworth, 1993; Fiske & Ladd, 2000; Gordon, 1994; Lauder, 1994; Waslander & Thrupp 1995). In such cases it is to be wondered whether the public humiliation associated with a low rank on a league table is the best way to encourage those schools to embark upon a vigorous programme of remediation and improvement.

All of this begs the question of how school effectiveness should be defined and measured. The political rhetoric seems to be that merely by publishing information about students' performance in state-funded schools, public awareness about educational standards (and quality schooling) will be raised along with school performance nationally. However, such a view fails to acknowledge the limitations and pitfalls of adopting a performance-based framework for evaluating not only school and teacher effectiveness but also student learning. Indeed, the research work of Broadfoot (1996), Gipps and Murphy (1994), Lacey and Lawton (1981), Murphy and Broadfoot (1995), Nuttall (1986), Torrance (1995,1997) and Wolf (1995) all warn that students' scores on tests and examinations provide statistically meaningless evidence of schooling efficiency and do nothing to raise educational standards per se. Thus it would seem that attempts to link schooling effectiveness with educational standards and students' scholastic performance are all the more problematic given robust sociological accounts of the relationship between family values, practices and resources and differential educational and social achievement (Nash, 1993, 1999, 2001).
Outcomes-based Education: The American context

The social efficiency movement

Recent attempts to reform state education systems along the lines of identifying and describing in considerable detail the expected outcomes of schooling, and then holding teachers and administrators accountable for the quality of students' work, mirror closely the efficiency movement ideals of the early twentieth century. The brainchild of Frederick Winslow Taylor, these ideals originated in the United States of America in 1911 and flourished until the early 1930s, only to be reborn in the United Kingdom and Australia in the late 1980s, and in New Zealand in the early 1990s.

Outlining his views on industrial efficiency in his seminal work, Principles of Scientific Management (1911), Taylor immediately became a highly sought after management consultant to numerous American industrialists who were struggling to find ways in which to extract maximum efficiency (profit) from their factories and workers. The key to understanding scientific management, he concluded, lay in adopting a rigorous time-and-motion analysis of every movement of expert workers, breaking complex tasks down into their most elementary components, describing the exact specifications of each task to be performed, and then ordering the precise elements of those tasks so as to bring all employers' levels of performance up to the required standard by eliminating wasted motion (Taylor, 1911).

Not surprisingly, educators were quick to recognise parallels between Taylor's industrial management principles and their application to the governance of American public schools. Moreover, Taylor's fondness of certainty, high-level specificity, precision, sequence and regulation in American industrial reform provided school administrators with an ostensibly scientific method for introducing much needed efficiencies into schools. Political and educational conservatives soon embraced the metaphors, procedures, and performance standards drawn from the scientific management movement as the principal means by which to bureaucratise American education (Tyack, 1974).

Educational efficiency and the 'scientific' curriculum

At the forefront of the doctrine of educational efficiency in America were three leading figures: Joseph Rice, Franklin Bobbitt, and Ellwood Cubberly. Rice, formerly a medical doctor, became highly regarded for his pioneering survey-based research into students' reading and arithmetic achievements throughout the 1890s (Engelhart & Thomas, 1966). Having become increasingly disillusioned with the lack of rigour and the absence of standards and efficiency in the school curriculum Rice published
a scathing critique of American education in 1912 entitled, significantly, *Scientific Management in Education*, in which he claimed that young people needed only to know what was immediately useful in order to prepare them specifically and directly for their future occupational roles in society.

Turning his attention to the education system, Rice claimed that American schooling was in an abysmal state because administrators knew little about what was happening in the nations' classrooms and because the quality and performance of its teachers was poor. Rice's solution was simple and unequivocal: introduce a 'scientific system of pedagogical management' (Rice, 1912, p.xiv) wherein classroom achievement standards were specified in advance and teacher competence (efficiency) measured in relation to the number of students who met those clearly defined standards (pp.xiv, xvi). The results of one school could then be compared with others in order to establish an index of relative school efficiency.

Writing at about the same time as Rice, Franklin Bobbitt, from the Department of Education at the University of Chicago, was similarly attracted to the newly emerging educational efficiency movement and its concomitant goal of settling social turmoil, cementing social division, and promoting greater cohesion and stability in America. Bobbitt soon came to be recognised as the key spokesperson for the new breed of efficiency-minded educator when he identified curricular reform as the most potent instrument for achieving the requisite social (and economic) efficiency. Outlining his factory-school metaphor in 'The Elimination of Waste in Education', published in 1912, Bobbitt declared that the schools' task was to 'work up the raw material into that finished product ... [by] educating the individual according to his capabilities' (Bobbitt, 1912, p.269). Educational inefficiency and wastage, he concluded, would be eliminated through a carefully selected and differentiated curriculum—Bobbitt deemed it inefficient to train males and females along identical lines—wherein each 'class of individuals' would be taught what was useful for their future social and vocational destinations (p.269).

The attractiveness of Bobbitt's utilitarian curriculum was not lost on leading American industrialists who believed that it would better prepare school leavers to enter the workforce while at the same time addressing the serious shortage of skilled labour caused by the onset of involvement in World War I and the halting of immigration between 1915 and 1920 (Callahan, 1962; Gremin, 1962; Katz, 1968). From this point on, American schools were inextricably positioned as the incubators for major economic, industrial, occupational and social transformation.

Capitalising upon America's infatuation with curriculum theory as the guarantor of social efficiency, Bobbitt published his state-of-the-art text,
The Curriculum, in 1918. The appeal of Bobbitt's theory lay in its simplicity for it likened curriculum planning to a series of discrete steps, each of which entailed specifying 'numerous, definite, and particularised' curricular objectives and outcomes (Bobbitt, 1918, p.42). In keeping with Taylor's scientific description of the efficient factory worker, Bobbitt was adamant that scientific analysis alone would reveal what society required of its schools. Such analysis would allow schools to abandon useless (symbolic) curriculum activities in favour of what was directly relevant to the needs of modern American industry.

Rice and Bobbitt found a strong ally in Elwood Cubberly, Stanford University's Foundation Dean of Education. Having been hired by numerous school boards to undertake cost-benefit analyses to ascertain the overall quality of education, Cubberly was unswerving in his view that American schools were:

factories in which raw products (children) are to be shaped and fashioned into products to meet various demands in life. The specifications for manufacturing come from the demands of the twentieth century civilisation, and it is the business of the school to build its pupils according to the specifications laid down. This demands good tools, specialised machinery, continuous measurement of production to see if it is according to specifications, the elimination of waste in manufacture, and a large variety of outputs. (Cubberly, 1916, pp.337-338, quoted in Callahan, 1962, p.97)

Embedded in Cubberly's summary of social efficiency theory was the central cannon of the scientific curriculum-makers—specificity and predictability in curriculum construction and delivery. By specifying precise and definitive curricular objectives in advance of actual classroom instruction, and then requiring the nation's teachers to deliver that curriculum to all children, a standardised teacher-proof curriculum was born. Such mechanised and regulated teaching and learning had obvious appeal to school administrators who had long sought unequivocal evidence of the efficiency (or otherwise) of American teachers. The great advantage of scientific curriculum reform, Bobbitt had boldly claimed in 1913, was that by insisting upon definitive outputs (standards) for teachers, administrators could then 'tell at a glance which teachers are strong and which ones are weak ... (and) enable the management to instantly overcome one of its most troublesome problems in schools—that of getting rid of inefficient teachers' (Callahan, 1962, p.79). Teachers were now cast in the mould of being rule-bound, results-driven technicians. With scientific curriculum making so hegemonically embedded in contemporary educational theory, no thought had been given to inviting teachers as co-participants to assist in framing and revising the very curriculum that they
were charged with implementing. Administrators, it seems, were not yet willing to concede that the classroom experiences of professional teachers needed to be factored into ongoing curriculum planning and reform.

**Social reconstructionism**

In late 1929, the vista of endless economic and social prosperity for America ended abruptly with the collapse of the stock market. While America grappled with the worsening impact of the world wide economic depression, public support for the social efficiency movement eroded in line with the fast disappearing economic, educational and social benefits promised by its disciples. The doctrine of social efficiency was now displaced by **social reconstructionism**.

Unlike the efficiency theorists, the social reconstructionists, led by George Counts from the University of Chicago, argued that the school curriculum could not be constructed from a scientific analysis of pupils' (and teachers') activities nor could standards be derived and determined objectively (Counts, 1930, pp.124-125). Singling out the 'orgy of testing' for special attention, Counts attacked the 'machine culture' of American schools, the resultant curriculum fragmentation, and the non-inclusive (anti-democratic) values and interests of middle-class American society (pp.126, 137-138, 147). He also castigated politicians and administrators for ignoring the important social issues of the times and for failing to take the lead in endorsing an educational doctrine the core values of which were social justice and social reform (Counts, 1932a, pp.259-261).

Having tapped a raw nerve with the nation's dispirited educators, Counts elaborated his views in his book, *Dare the School Build a New Social Order?*, published in 1932 (Counts, 1932b). Beginning with an analysis of the critical economic and social problems confronting America, Counts then argued for the school curriculum to be reoriented to give students and teachers the opportunity to become informed social critics. Counts's central thesis—that the nation's schools provided the key site for the reconstruction of American life—quickly captured the imagination of educators and politicians alike. Doubtless, President Roosevelt was aware of the synergy between Counts's position and his own domestic reform programme of social rejuvenation when he announced his New Deal in 1933. Education now became politically charged as teachers were called upon to break with tradition by introducing their pupils to the realities of American society and the factors that shaped its development.

**World War II and 'Life Adjustment Education'**

While it was one thing to propose that the school curriculum be reformed along social reconstructionist lines it was quite another for American
teachers and school administrators to translate these proposals into successful classroom practice. In the meantime America became increasingly preoccupied with the prospect of world conflict to such an extent that any talk of a new social order was all but squashed by the rising tide of patriotism. When America finally entered World War II on 8 December 1941, its educational leaders were united in their view that the schools' key function was to embody the values of a modern democratic society (Cremin, 1962; Tyack, 1974). As the conflict wore on, American educators turned their attention towards post-war schooling reforms. Aware that high school enrolments had declined sharply after 1940—no doubt the result of American school leavers either enlisting for the armed forces or seeking work in the rapidly expanding military industries—the education community resolved to refocus the high school curriculum along more functional and work-oriented lines. In keeping with the doctrine of its social efficiency ancestor, the new life adjustment education model required that the particular strengths of each high school student be determined and then matched with a curriculum specifically geared to fostering worthwhile work habits and skills in accordance with each school leaver's future occupational role (Callahan, 1962; Cremin, 1962). The great advantage of aligning the curriculum along vocationally functionalist lines, the life adjustment educators claimed, was that it forced the traditionally academic high schools to broaden their curricular offerings in order to cater for all adolescents (Cremin, 1962). Life adjustment education also appealed to state level school administrators who could now reassure the federal education authorities that they were in fact transforming the nation's high schools into a potent force in American economic life (Callahan, 1962).

General education and a common core curriculum

The distinguished Harvard Committee, however, was less optimistic about the claims being made in support of life adjustment education. Their comprehensive report, General Education in a Free Society, published in 1945, urged the introduction of a general education curriculum wherein every American high school student, irrespective of their academic abilities and vocational ambitions, took a common core of four subjects (English, mathematics, science, and social studies) for at least half of the time that they were in school. In the time that remained, students would enrol in other subjects (electives) that interested them (Harvard Committee, 1945, p.100). However, Bobbitt, now an elder statesman in the curriculum world, saw the matter very differently. In dismissing the Committee's general education philosophy Bobbitt chose to align himself with the life adjustment educators, reiterating his earlier view that the needs of the
majority of high school students would best be met when the curriculum was revamped to include specific skills and competencies, and when school administrators demanded that all students be taught how to perform these efficiently (Bobbitt, 1946, pp.327–332; Callahan, 1962).

The 'Anti-Intellectual' crisis

By the late 1940s, American academics could no longer hide their anger over the direction in which public education was heading. The publication of Mortimer Smith's book, *And Madly Teach*, in 1949 was a portent of the criticism to come. Whilst sympathetic to the need to accommodate a new population of students, and aware that the high school curriculum needed to be broadened in line with the various economic and social roles that school leavers would be required to perform, Smith concluded that America's education leaders had done nothing to foster the intellectual development of academically inclined youth. Other academic critics of American education soon joined in the debate, united in their view that the life adjustment courses were wholly responsible for subjugating conventional curriculum subjects (Fuller, 1951, p.33; Bestor, 1954, pp.12–13, 44). These counterattacks further cemented the respectability of the academic curriculum in terms of its relationship to America's future economic, industrial, and social prosperity, if not its national security.

The matter assumed even greater importance when the Soviet Union successfully launched the first earth-orbiting satellite, Sputnik 1, on 4 October 1957. Assisted by the mass media's insatiable appetite for news about the Soviets' technological advances, senior military personnel were quick to identify the Cold War threat to America's military power and security (Rickover, 1959). Not surprisingly, Americans now feared that they had lost their engineering, scientific and technological edge because their schools had somehow become intellectually soft compared with the rigorously academic Soviet and European education systems. Congressional legislators responded to the challenge by passing the National Defence Education Act in September 1958. This act authorised the government to release funding, on a scale never before witnessed, to allow foreign languages, mathematics, and the physical sciences curriculum to be restructured in the interests of national security (Cremin, 1962; Connell, 1980). Unlike 1911, when Taylor envisaged skilled workers providing the key to America's economic prosperity, Congress, by the late 1950s, put its full weight behind an educational system that harnessed the intellectual capital of American engineers, mathematicians, scientists, and technologists.
The Tyler Rationale for Curriculum Development (1949) and the rise of behavioural psychology

The immediate difficulty for politicians in general and educationists in particular was to discover some way to define educational outcomes with such precision that any ambiguity about what the student was learning—specifically, whether or not the student had actually achieved those goals—would be eliminated. Ralph Tyler's objectives model (also sometimes known as the 'behavioural', 'rational', 'sequential' or 'means-end' model of curriculum planning), outlined in his landmark text entitled Basic Principles of Curriculum and Instruction (1949), appeared to provide the key.

Clearly influenced by the work of Rice, Bobbitt and Cubberly—in particular, their concern to develop specific curricular objectives based on scientific methods—Tyler outlined his four step framework of how to construct a logical, sequential and systematic school curriculum. These steps involved setting clear and precise objectives (to be derived from systematic studies of what students needed to know, what society thought students should be taught, and what subject specialists agreed were the most important things to be gained from learning that subject), developing teaching strategies and selecting content, organising effective educational experiences, and assessing and evaluating the extent to which these objectives had been achieved.

The great attraction of Tyler’s model was that it treated schooling as an orderly process whose prime purpose was to produce and promote desirable learning outcomes for all students, irrespective of their abilities and areas of interest (Brady & Kennedy, 1999, p.99). The single most important factor in curriculum planning, according to Tyler, was the efficiency and effectiveness of the learning-teaching nexus in accomplishing the desired ends (learning outcomes) of education (Posner, 1998). While Tyler was adamant that curriculum planning was a technical, value-free, apolitical process, it is abundantly clear that his rationale was underpinned by definite assumptions concerning the ideal educational experiences of students and teachers, the nature of the curriculum to be delivered, and the purposes of education (Eisner, 1979, p.10; Kliebard, 1995).

The move to define educational outcomes with even greater precision continued to gather momentum in the years immediately following the publication of Tyler’s text. The emergence of behavioural psychology, which held that all human activity could be analysed in purely objective terms and then modified in line with the needs of the learner, now provided educators with a scientific technique that not only objectively
quantified students' performance alongside predetermined (and measurable) outcomes but also provided a means by which to manipulate students' learning experiences to ensure compliance with those outcomes. American educators and researchers quickly became infatuated with the behavioural objectives movement to such an extent that hundreds of books appeared throughout the late 1950s, 1960s and early 1970s supporting its wholesale adoption in curriculum planning (Callahan, 1962; Stenhouse, 1973; Tyack, 1974). In point of fact, the hegemony of behaviourism proved so strong that remarkably little criticism emerged regarding its limitations until the mid-1970s (Apple, 1996; Stenhouse, 1973, 1978).

**Behavioural objectives and learning outcomes**

The general thrust of the behaviourist approach was outlined for the first time in Benjamin Bloom's seminal work, *Taxonomy of Educational Objectives* (1956). This involved the classification of student behaviour according to six educational objectives (knowledge, comprehension, application, analysis, synthesis, and evaluation). Bloom further stipulated that each behavioural objective should be expressed as a form of *behaviour* that could be *taught* and *learned* (Bloom, 1956).

The behaviourist cause was further bolstered by the publication in 1962 of Robert Mager's book, *Preparing Objectives for Programmed Instruction*, which called for even greater operational specificity in terms of the criterion level that had to be achieved in order to demonstrate competency in achieving that objective (Eisner, 1979). This required the identification of each behavioural objective, the precise description of the conditions under which each would be exhibited, and the measurement (often through testing) of the desired behavioural outcome against each predetermined criterion (Mager, 1962). Teachers who tried to implement Mager's programme quickly became bogged down by the requirement to construct dozens of specific behaviourally-defined instructional objectives. However, these implementation problems were conveniently ignored in the ongoing quest for certainty in education.

Other educators followed Mager's lead, adapting and refining his procedures along mastery learning lines (Carroll, 1963). The mastery learning model, wherein students mastered each step of a carefully structured programme before proceeding to the next, required curriculum planners to analyse the precise elements (i.e., knowledge and skills) that students needed to master, to arrange curriculum projects sequentially, to devise ways of teaching and learning so that students mastered this material, and to establish an effective method of assessment (usually achievement and aptitude tests) to check students' progress against predetermined learning objectives.
Criticism of the quality of American education intensified during the 1960s to such an extent that the federal government launched various reform programmes aimed at introducing minimum competency tests for high school graduation (Tyack, 1974). These tests would supposedly 'raise academic standards and increase educational achievement ... [and] prevent schools from passing incompetent students through the grades simply on the basis of "social promotion"' (Haney & Madaus, 1978, p.463). Now, for the first time, outcomes-based education (and assessment) held considerable promise as an objective means to 'raise standards' by setting clear performance targets for state schools and holding teachers accountable for their students' achievements. However, the fundamental problem of how to define, specify, and test minimum competencies remained unresolved because they are never fixed entities; rather they are embedded within a political and social context that determines their definition and assessment.

Teacher accountability, competence and performance-based assessment

Growing unease throughout the 1960s over educational standards, declining Scholastic Aptitude Test (SAT) scores, and poor quality teacher education led federal policy makers to seek ways to minimise, if not eliminate, teacher incompetence by 'teacher-proofing' classroom instruction (Conant, 1963; Eisner, 1991; Koerner, 1963). The solution, justified on the grounds of public accountability and the need for greater transparency in monitoring what teachers and students should know and be able to demonstrate, was simple: formulate performance-based standards for teacher certification, for the curriculum, and for teaching outcomes (Shephard & Kreitzer, 1987; Winter, 1982). Perhaps not surprisingly, the research evidence reveals that the competency-based approach failed to live up to the claims and hopes of its proponents because it was the political context surrounding the test, rather than an absolute definition of competence, that defined the real level of teacher competence. In other words, competency became what the test designers defined it as being and nothing more (Shephard & Kreitzer, 1987; Winter, 1982).

The 'New Basics' curriculum and the search for educational standards

The American high school curriculum became increasingly politicised, if not standardised, between 1975 and 1985 as school administrators and teachers found themselves at the centre of heated debates over quality and the failure of education to boost the nation's economic competitiveness. Conservative politicians quickly grasped the importance of 'standards' and made this a central and compelling feature of their neo-liberal 'back to the
basics' (eliminate the 'frills') curriculum. Finally, the educational standards barometer was officially sanctioned in April 1983 when the Department of Education released its damning report on American education, aptly entitled *A Nation at Risk* (National Commission on Excellence in Education, 1983). This report sought to embed the twin notions of competency and excellence as the new policy watchwords of the 1980s by advocating a 'New Basics' academic curriculum (comprising mathematics, science, social studies, computer science, and foreign languages) as the antidote to the 'cafeteria-style' (or 'smorgasbord') curriculum then being offered in American high schools.1

In the wake of *A Nation at Risk* the driving force for change came from business groups who were gravely concerned about the faltering American economy and the growing threat of international competition and from state governors who were held accountable, by both business and the public, for improving educational outcomes. Despite the growing realisation by the late 1980s that educational standards could not simply be raised by political decree or by mandating more stringent assessment practices and tests (Madaus, 1988; Ravitch, 2000), George Bush's *America 2000* and Bill Clinton's *Goals 2000* continued to advocate prescribing what teachers can and cannot teach, establishing learning outcomes (or standards) for each grade, implementing state-wide tests of attainment to test these learning outcomes, toughening graduation standards, and strengthening teacher certification and training (Pascoe, 1995; Ravitch, 2000).

At the time of writing, the implementation of the No Child Left Behind Act from 2002 requires existing state-wide accountability systems to be aligned with specific state education standards. Accordingly, each state is held legally responsible for developing content and performance standards, measuring improvement, implementing and administering assessment (including assessing students with limited English proficiency), reporting this assessment data, and applying sanctions for not meeting performance goals (U.S Department of Education, 2002).

But conservative educational practices such as these come at a price. America's current infatuation with standards and accountability invariably dissuades teachers and learners from undertaking creative, challenging and risk-taking activities that free our minds from the confines of certainty (Apple, 1996).

**Outcomes-based Education in England and Wales**

The fascination with 'educational standards' in general, and outcomes-based education in particular, was not confined to the United States of America. From the mid-1980s Conservative Government politicians and
education bureaucrats in England were united in urging wide-ranging curriculum, assessment and teacher education reform to arrest the dramatic erosion of educational standards, allegedly the result of two decades of laissez-faire excess and an outdated (1960s) egalitarian philosophy of teaching and learning (Aldrich & White, 1998; Ball, 1994; Kelly, 1990). Such intervention was further justified by the political rhetoric that education standards and economic competitiveness would somehow be enhanced by introducing a national curriculum, setting transparent Standard Assessment Tasks (SATs), measuring (testing) whether or not these had been achieved, and encouraging parents to choose their children's school on the basis of published comparative test scores (Torrance, 1997). With little thought as to how these standards were to be defined, how they would be specified and translated into SATs, and whether teachers would be able to adapt to the new testing regime, the Conservatives pushed on with their neo-liberal, market-oriented agenda of monitoring, comparing, evaluating and publicising the performance of all publicly funded institutions.

The National Curriculum (1988)

In 1988 Margaret Thatcher's Conservative Government passed the Education Reform Act that launched a centrally prescribed National Curriculum embodying five key features as follows:

- **Subjects:** The National Curriculum outlined a 'core' of traditional academic subjects (English, mathematics and science) and 'foundation' subjects (for example, creative arts, geography, history, one modern language, music, physical education, technology, and, in Wales, Welsh) to be taught in all English and Welsh primary and secondary schools. In the little time that remained after the core and foundation subject requirements had been completed—together these occupied 70–80 per cent of curriculum time—there was some space (albeit minimal) for social and personal education, political education, environmental education, integrated studies, social studies, and peace studies.

- **Key stages:** Four key stages are outlined for ages 5–7, 7–11, 11–14 and 14–16 year olds.

- **Programmes of study:** These set out what students should be taught and provide lists of statements of attainments and examples of learning activities.

- **Attainment targets:** These set out expected standards in student performance arranged in ten levels. At the end of stages 1, 2 and 3 in all subjects except art, music and physical education, standards of students' performance are set out in eight level descriptions of increasing difficulty, and an extra description above level 8 for exceptional performance to level 10. End of key stage descriptions for art, music and physical education set out expected standards of performance. (McGee, 1999, p.49; Pring, 1989)
• **National testing**: All 7, 11, 14 and 16 year-olds were to be tested in the three core subjects.

The introduction of the National Curriculum, along with national testing, was doubtless greatly assisted by the failure of Labour and the Left to provide a set of broad, popular and distinctively socialist policies on curriculum and assessment. In the absence of alternatives, the Conservatives were able to seize the initiative and implement a curriculum that gave pride of place to academic subjects but almost no recognition to the ostensibly lower status aesthetic, practical, or social subjects. However, the education reforms of 1988 involved more than the introduction of the National Curriculum. The Conservatives relied on three other key measures to buttress their educational vision: the introduction of national testing; the implementation of a new external school inspection system administered by the Office for Standards in Education (OFSTED); and the publication of schools' average achievement scores on tests and public examinations. Taken together, these were expected to provide the public with unequivocal evidence about the quality of teaching and learning in English schools.

**'League Tables'**

The Conservative's commitment to outcomes-based education was clearly spelled out in 1991 when the Department of Education and Science (DES) launched the *Parents' Charter*. This Charter required comparative 'league tables' of examination and national curriculum test results to be compiled and published for each educational institution (school) and local education authority (LEA) so as to assist parents in deciding which schools to enrol their children at (DES, 1991). These league tables listed students' average achievement rankings on a school by school, local authority by local authority basis using national curriculum test results at ages 7, 11 and 14 years, along with similar scores for 16 year olds undertaking the General Certificate of Secondary Education (GCSE) and 18 year olds taking their A-levels (Wolf, 1995). While all of this was new for the primary schools, the secondary schools had been required to publish their annual GCSE examination results in prospectuses and reports for parents since 1980 (Torrance, 1997, p.323). Thus the only difference from the secondary schools' perspective was that their examination results would now be compiled and published *nationally*.

The research evidence demonstrates that the 1988 reforms, along with the *Parents' Charter*, have had a profound influence on both the content and process of schooling in England and Wales. They reshaped and redefined the culture of the classroom and the culture and work
of teachers. Initially teachers endorsed the idea of attainment levels in the National Curriculum because they provided clear descriptors of what pupils at each of the different levels should attain (Hargreaves, 1989; Kelly, 1990). However, that support quickly evaporated by the early 1990s as teachers witnessed first hand the way in which performance (assessment) indicators had come to dominate classroom instruction (Aldrich & White, 1998; Groundwater-Smith, 1993; Kelly, 1990). Such an outcome was hardly surprising given that teachers work in an environment where few other adults directly witness the quality of their work and where they have had to confront the political reality that examination results provide one of the few available public (and ostensibly objective) indicators of their performance. The price to be paid for the introduction of a national testing regimen in England, it seems, was the hegemonic stranglehold of those tests over the school curriculum, and the concomitant expectations of pupils, teachers, parents and employers.

**Outcomes-based Education in Australia**

**The National Curriculum debate**

The launch of the National Curriculum in England and Wales in 1988 led Australian education bureaucrats to engage in heated debates concerning the merits (or otherwise) of a national curriculum. As was the case in America and the United Kingdom at the same time, curriculum reform in Australia was directly associated with a larger economic, industrial, political and social agenda where the aim was to create greater efficiency and effectiveness. The key issue was whether the Commonwealth or individual States should control the content of the curriculum.

In May 1988, John Dawkins, then the Commonwealth Minister for Employment, Education and Training, released a report entitled *Strengthening Australia's Schools* outlining the Commonwealth's analysis of the aspirations for Australian education. The report opened with the claim that educational policy in all western countries was premised upon the assumption that 'schools play a critical and central role in the nature of our society and economy' and that if economic performance is to be improved, then 'adjustment of the school curriculum' was needed (Dawkins, 1988, p.1). In other words, because the nation's economic needs were inseparable from the purposes of education, students' individual needs could legitimately be subsumed within the dominant 'national economic needs' discourse.

With education constitutionally a state rather than a Commonwealth responsibility, the national education strategy advocated by Dawkins could only be implemented with State cooperation. Six areas were identified as needing urgent attention: increasing school retention rates, education and
equity, a common curriculum framework, a common approach to assessment, reform in teacher education, and, finally, cooperative ventures to minimise unnecessary differences across Australia (Dawkins, 1988).

Over the next five years (1988–1993), the Australian Education Council (AEC) was funded to oversee collaborative work on creating a centralised outcomes-based national curriculum framework for use throughout all Australian schools. One of the first documents to emerge was a statement of ten national education goals, published in April 1989, known as the 'Hobart Declaration' (DEET, 1992; Marsh, 1994). Further national collaborative work on national curriculum and assessment frameworks was undertaken over the next two years, managed by CURRASS (a curriculum and assessment subcommittee of the AEC) and funded equally by the Commonwealth and the States and Territories, according to a weighted formula. By April 1991, what had emerged was a draft Year 1–10 curriculum framework organised around national curriculum statements and profiles of student outcomes across eight attainment levels for each of the eight key learning areas (KLAs): English, Languages other than English (LOTE), Mathematics, Science, Technology, The Arts, Society and Environment, and Health and Personal Development (Ellerton & Clements, 1994; Marsh, 1994, 1995). Thereafter a 'curriculum mapping' exercise was undertaken to ascertain the shared curriculum goals across the States and Territories. In June 1993, national statements for all KLAs were finalised and released (Ellerton & Clements, 1994; Marsh, 1994, 1995).

However, at the July 1993 meeting of the Australian Education Council in Perth, many of the State and Territory (Liberal government) education ministers on the Council voiced their strong opposition to the concept of a national curriculum framework and instead supported the alternative motion (by five votes to four) that the States and Territories each be allowed to develop their own curriculum framework from the nationally developed curriculum statements and profiles (Ellerton & Clements, 1994). The AEC's decision not to endorse the very framework that it had spent four years developing stunned many educational bureaucrats and educators who lamented the loss of the opportunity to achieve greater curriculum and assessment standardisation across all Australian schools (Boston, 1994; Collins, 1994a, 1994b, 1995; Marsh, 1994, 1995).

Despite this setback, the lure of specially tagged Federal funding post-1993 has meant that the nationally developed curriculum statements and profiles for the eight KLAs continue to exert considerable influence over educational policy and practice in all Australian States and Territories (Ellerton & Clements, 1994; Marsh, 1995; Rowe & Hill, 1996; Watson, 1996). The emergence of specific learning outcome statements in the Victorian Board of Studies Curriculum and Standards Framework of 1994...
and 1999 (Board of Studies, 1994, 1999), for example, along with the emergence of national statements and profiles in all of the other States and Territories, would seem to indicate that the AEC's earlier work has not been in vain (Marsh, 1994, 1995; Rowe & Hill, 1996; Watson, 1996). Looked at in this way, it now seems that the resistance encountered at the July 1993 meeting of the AEC was politically motivated rather than indicating State and Territorial level opposition to national curriculum goals, profiles, statements, and assessment strategies per se (Grundy & Bonser, 1997).

Curriculum contestation

Any reservations voiced about the adequacy of the outcomes-based approach to curriculum and assessment in Australia were quickly dismissed by supporters who claimed that opposition came mainly from conservative and narrow-minded academics who resisted modern thinking about curriculum and assessment matters (Collins, 1994a; Ellerton & Clements, 1994; Marsh 1994, 1995). Similarly, the then Director of the Australian Council for Educational Research, Barry McGaw, focussed only on the benefits of using externally set pencil-and-paper tests, based on the curriculum profiles, when he declared that 'the development of the national curriculum statements and profiles, and the State and Territory variants of them, provide a new basis for monitoring educational performance' (McGaw, 1995, p.10). However, what these commentators deliberately ignored was the growing body of teachers who reported that student outcome statements, indicators, profiles, and levels were not only adding considerably to their workloads but also failing to enhance classroom teaching and students' learning (Collins, 1994a; Marsh, 1994, 1995). In the final analysis, the central issue is power; specifically, who should control the curriculum, what that curriculum should comprise, and how best to monitor educational standards in publicly funded Australian schools.

Outcomes-based Education in New Zealand

Thus far has been traced the complex ways whereby the school curriculum and assessment systems in America, the United Kingdom, and Australia have successfully been captured and modified in response to pressure from the state and its associated education agencies for greater surveillance and accountability of learners and teachers in publicly funded schools. None of this was new to New Zealanders who have long been accustomed to a nationwide outcomes-based primary (since 1878) and post primary (since 1946) school curriculum. Furthermore, New Zealand had experimented with national primary school tests from 1878 to 1937 and
finally abandoned them when it became clear that they had done nothing to improve the quality of teaching and learning in the nation's classrooms (Lee, 1991; Lee & Lee, 2000).

The primary school standards

New Zealand's first attempt to prescribe a national primary school curriculum in 1878 illustrates how stakeholders can undermine opportunities for education to flourish in ways that are unintended. The centrally prescribed curriculum—designed to reassure the public that the standard of performance in all parts of the country would be the same—specified the school subjects to be studied over a period of six years with each subject further broken down into annual performance tasks to be mastered before the individual pupil was permitted to advance to the next class. Each year's work as a whole was known as a 'standard' and while bright children could win accelerated promotion and leave school as soon as they had passed Standard Six, those who failed the inspector's annual examination (even in one subject) were condemned to repeat the whole year's work in the following year (NZG, 1878, pp.1309-1312; Department of Education, 1881).

Although the standards curriculum specified common sequential learning tasks teachers were allowed some freedom of manoeuvre to develop learning programmes and activities for their pupils. However, the tendency to use public school examination results as the yardstick for comparing the efficiency of individual schools and their teachers (i.e., league tables) quickly became a dominant feature of the system. The government endorsed the practice when it declared that:

Other things being equal, the best school in a district is the school which passes a larger proportion of children than any other in a district, and at a lower average age; and a district makes progress if year by year the proportion of passes increases and the average age of passing becomes lower. (AJHR, H-1A, 1880, p.12)

Predictably, the emphasis on examination results led teachers and parents to demand more detailed and 'objective' curriculum specifications in order to minimise the discretionary (and subjective) judgement of teachers and inspectors. Parents also understood that examination preparation invariably meant excessive homework, extra hours of schooling approaching examination time, and extensive use of corporal punishment in the classrooms. Nevertheless, ambitious parents quickly seized upon the examination system as the principal means by which their children could gain scarce school credentials and thus better their life opportunities. There was never any thought that this process would be inclusive for it was
common practice for children whose health was poor, whose attendance was irregular, or who struggled with their lessons to be kept in the preparatory (infant) classes because these classes were not formally examined by the inspectors. Many Maori children who found their way into mainstream primary schools were treated similarly simply because they were Maori and because their presence in the higher standards carried an assumed higher risk of failure in the all-important public examinations. These children could be kept in order or if necessary excluded in several ways but children from ambitious families harboured expectations that teachers, school administrators, and politicians ignored at their peril.

The rocky road to curriculum and assessment reform

Following a decade of vigorous debate over the future of the Standard 1 to 5 examinations in general and the Standard 6 Proficiency Certificate in particular, Peter Fraser, the newly elected Labour Government's Minister of Education, introduced legislation into the House of Representatives in October 1936 to abolish all primary school examinations (New Zealand Parliamentary Debates [NZPD], 1936, p.974). Although some conservative politicians wanted Proficiency retained as an arbiter of primary school 'standards' (NZPD, 1936, pp.987, 1041), its demise in late September 1937 was applauded by education boards, the inspectorate, and the nation's primary school teachers (Lee, 1991; Lee & Lee, 2000).

Perhaps it was to be expected that the new emphasis on a broader, non-examination-oriented primary school curriculum post-1937 would not always be welcomed by those teachers who had grown accustomed to working with definitive standards' prescriptions and examinations. Some parents also complained about the 'low efficiency' of the primary schools and many of the nation's newspapers were quick to publish employers' allegations of 'declining academic standards in reading, writing and arithmetic' among primary school leavers (Beeby, 1992; Ewing, 1970, pp.164–165, 259–260). Although Fieldhouse's work in the mid-1950s, using standardised tests in reading and arithmetic prepared by the Australian Council for Educational Research, had demonstrated that New Zealand children's attainments were comparable with all the Australian states except Queensland, whose results were consistently superior, critics remained unconvinced (National Education, 1955, pp.41–43; 1956, pp.373–375). Finally, in 1960, the Minister of Education, Philip Skoglund, appointed an independent Commission on Education to 'take stock of the educational situation' and to recommend guidelines for its future development (Commission on Education, 1962, p.3).

In answering the criticism that standards had declined the Commissioners recommended that the New Zealand Council for
Educational Research (NZCER) be contracted to prepare and administer nationally standardised ‘checkpoints of attainment’ in the basic subjects at five-yearly intervals ‘to allow valid comparisons of achievement to be made at particular points [Standards 1, 4 and Form 2] in the primary school curriculum’ (Commission on Education, 1962, pp.37, 372). These ‘checkpoints’ were to supplement the estimates of class teachers who were uniquely placed to take account of various factors affecting the ability and performance of pupils (Commission on Education, 1962, pp.37, 258–263, 372). In 1965 the Minister of Education, Arthur Kinsella, invited the NZCER to construct ‘standardised group tests of attainment in basic school subjects’ for all classes (Elley, 1967, pp.63–77). Four years later, the first of these standardised tests was published by the NZCER and distributed to all primary schools (Ewing, 1970, p.270). Thereafter, further information on educational achievement, albeit covering selected areas of the New Zealand primary school curriculum, became available through the use of the standardised Progressive Achievement Tests (PATs), developed (and periodically re-normed) by the NZCER.

Towards market-driven education: The 1980s and beyond

After Robert Muldoon’s National government (1976–1984) was defeated in the landslide general election of 1984, the newly-installed Labour (Lange) government (1984–1990) embarked upon an unprecedented programme of rapid and widespread economic restructuring, underwritten by the New Zealand Treasury’s economic briefing papers of 1984 and 1987 (Lauder, 1987, 1990, 1994; Lauder, Hughes, & Watson, 1999; New Zealand Treasury, 1984, 1987). Abandoning the egalitarian ideals of access and opportunity that had underpinned the Keynesian welfare state in New Zealand since 1935, Labour pursued a market-based model that espoused choice, efficiency, competition and outcomes. Educational reform was to become a necessary and central part of Labour’s economic restructuring agenda, albeit one in which the influence and autonomy of educational advisers and classroom teachers would be minimised on the grounds that these ‘stakeholders’ had a ‘vested interest’ in maintaining the status quo in education (Lauder, Middleton, Boston, & Wylie, 1988; Olssen & Matthews, 1997).

The education strategy adopted by the Labour government involved radical reforms on three key fronts: educational administration (Administering for Excellence, 1988 and Tomorrow’s Schools, 1988), school curriculum (the Curriculum Review, 1987), and senior secondary school qualifications and assessment (Learning and Achieving, 1985–1986). So strong was the political impetus behind these reforms that Labour’s defeat in the 1990 general election neither sidetracked these reforms nor
slowed their pace. Moreover, there was a strong sense in which state control, surveillance, and accountability in New Zealand education was regarded as inevitable and thus unstoppable, given similar developments internationally.


The newly elected National government (1990–1999) wasted no time in announcing that traditional approaches to the school curriculum and assessment systems were no longer appropriate in a country whose economy had progressively been exposed to the increasingly competitive international environment since the mid-1980s (Ministry of Education, 1991). Borrowing heavily from the United Kingdom's 1988 National Curriculum model, Lockwood Smith, the then Minister of Education, announced his intention to overhaul the New Zealand curriculum, and the assessment and qualifications systems along virtually identical lines in 1991. The way forward, he declared, lay in implementing an outcomes-based National Curriculum Framework (1991) and National Qualifications Framework (1991) that together would strengthen New Zealand's overall skills base and boost its economic output and international competitiveness. Two years later, the new Curriculum and National Qualifications Frameworks were in place; frameworks that embraced an entirely outcomes-based model to student learning and achievement.

Highlighting the interplay of economic, educational, and political factors in his Foreword to The National Curriculum of New Zealand (1991), the Minister of Education, Lockwood Smith wrote that 'essential knowledge, understanding and skills' in the primary and secondary school curriculum was essential to 'achieving[ing] the standards which, as a small trading nation, [New Zealand] needs in order to prosper alongside other nations in the international marketplace' (Ministry of Education, 1991, p.i). At the core of this document was a general education curriculum that included 'essential learning areas' and 'essential skills' along with statements of the explicit outcomes to be achieved (pp.18–20). Following a period of public consultation, the government released The New Zealand Curriculum Framework (1993) that outlined in detail its curriculum expectations for all Year 1 to 13 students. The Framework set out nine broad curriculum principles, specified seven essential learning areas (subjects) and eight groups of essential (and generic) skills that all students were supposed to acquire throughout their schooling and, finally, provided a series of tightly specified learning outcomes ('achievement objectives') describing what students should know and be able to do as they progressed through each of the eight levels (Ministry of Education, 1993, pp.4–9, 22–23). By the year 2000 national curriculum statements had

Many teachers have felt a distinct lack of ownership over the very curriculum they were charged with implementing owing to the new competitive contractual model of curriculum development adopted by the Ministry of Education in the 1990s whereby tenders were invited for each curriculum area and then given a very tight timeframe to produce the draft curriculum statements (Elley, 1996; Philips, 2000). This signalled a radical departure from the former practice of lengthy consultation and negotiation between the Department of Education’s curriculum development officers and teachers’ interest groups when syllabus revisions were being contemplated (Philips, 1993).

The pressure to produce the new curriculum also meant that there was little opportunity to trial it in the schools. Not surprisingly, teachers began to complain about the increased workload associated with implementing the new Curriculum Framework. They have pointed out that there was inadequate time to become familiar with the new curriculum, that classroom resources were not available, that there was an overemphasis on assessing learning outcomes, and that there was insufficient time to cover the wide range of topics in the curriculum statements (Lee & Hill, 1996). The National government chose to ignore these concerns and instead pursued its non-negotiable, outcomes-based, neo-liberal education reform agenda; an agenda that deliberately removed professional educators from the process of curriculum and assessment reform rather than one informed by sound educational research and teacher expertise (Lauder, Hughes, & Watson, 1999; McKenzie, 1999; Marshall, 2000; Philips, 1993, 2000; Snook, 1997).


Overlapping the New Zealand Curriculum Framework was the National Qualifications Framework (NQF), designed and administered by the New Zealand Qualifications Authority (NZQA). Formally established under the Education Amendment Act in July 1990, the NZQA adopted a modular (‘building blocks’) approach to assessment in order to recognise qualifications in both the academic and vocational sectors (NZQA, 1990, 1991a, 1991b, 1991c). The essential ‘building blocks’ of the Framework were the competency-based ‘unit standards’ (comprising learning outcomes and performance criteria) that allowed students’ learning to be evaluated against clearly defined behavioural outcomes.5
In marked contrast to the Scottish Vocational Education Council's modularised competency-based National Certificate launched in the 1980s, the National Qualifications Framework in New Zealand was not restricted to non-advanced vocational education and training (Wolf, 1995). The New Zealand government had decided to abandon the 'discredited distinction between academic and vocational' on the grounds that 'Both are equal in their worth' (New Zealand Qualifications Authority, 1991b, p.32; Priestly, 1996/1997). With its absolute insistence that all academic and vocational qualifications in the post-compulsory sectors be included under a single unit standards-based qualifications framework, the NZQA should not have been surprised when some of its critics began to explore the theoretical underpinnings of the Qualifications Framework and to expose serious weaknesses therein. What these critics also discovered was the Framework's wholly behaviourist orientation; an orientation that had its origins in the social efficiency movement of the early twentieth century.

In the first place, critics censured the Curriculum and Qualifications Frameworks' reductionist and atomistic orientation wherein all knowledge and skill domains became translated into predetermined sets of assessable learning outcomes (Codd, 1996, 1997; Elley, 1995; Irwin, 1994, Peddie & Tuck, 1995). These same critics also challenged the Qualifications Authority to provide clear evidence that competency (outcomes) based assessment is in fact the most valid assessment method. Secondly, the Qualifications Framework's 'all-or-nothing' unit standards concept wherein the learner either passes or fails presupposes that transparent levels of competency (standards) can be predefined for all academic and vocational courses (Codd, 1996; Irwin, 1994). Thirdly, in adopting a 'can do' approach to assessment, students who 'do' particular tasks are assumed to have acquired the relevant skills, knowledge, and understandings. However, this overlooks the more important considerations regarding how much knowledge has been acquired, how thoroughly the concepts have been understood, and the extent to which originality was evident (Irwin, 1994). In other words, students might not actually know or understand what they 'can do'—they simply 'do' it by virtue of having rote learned the required task(s). Finally came the more damning allegation that a technocratic view of education and assessment underwrote both the Curriculum and Qualifications Frameworks to such an extent that any judgements about specific curricular objectives would only be considered in strict isolation from the assessment outcomes (Codd, 1997). The Qualifications Authority was in no position to disagree with this criticism because their 1993 Briefing Papers for the Incoming Government confirmed that the Qualifications Framework was deliberately designed to separate the 'development of the curriculum' from the 'setting
By mid-1995, the relationship between the Post Primary Teachers' Association (PPTA) and the National government had deteriorated to such an extent that the PPTA Executive released its own curriculum and assessment paper, *The Frameworks: Braided Stream or Tangled Web?*, for discussion at its annual conference in September (PPTA, 1995). Annoyed by the government's determination to proceed with the bulk funding of teachers' salaries, and frustrated over teachers' growing workloads as a result of the tight timelines laid down for the implementation of the Curriculum and Qualifications Frameworks, the PPTA paper raised concerns about the educational validity of a uniformly standards-based qualifications structure and the inadequate resourcing for the ongoing development of the Qualifications Frameworks. After considerable discussion, conference members resolved that the Association continue its support for the government's curriculum and qualifications reforms on the proviso that the government provide 'adequate resourcing' and more effective professional development opportunities (PPTA, 1997). They further recommended that the Association appoint an expert panel to review and audit the Qualifications Frameworks. The Executive subsequently approved the terms of reference and the membership of the Qualifications Frameworks Inquiry (Te Tiro Hou), and the inquiry team presented its report to the Executive in June 1997.

The Inquiry's detailed (138 page) report evaluated the educational validity of the Qualifications Frameworks, investigated whether standards-based assessment could do justice to a levels-based national curriculum, and explored the difficulties and workload implications surrounding the implementation of the Frameworks. It concluded by supporting the Qualifications Frameworks in general, and unit standards-based assessment in particular, on the grounds that some specification of standards (in the form of outcome statements) was better than none at all. The Inquiry team also urged the immediate abolition of the fifth form School Certificate Examination (on the grounds that it no longer signalled the end of secondary schooling for the majority of students) and the introduction of a nationally co-ordinated and coherent qualifications strategy wherein a single qualification was offered at Years 12 and 13 (i.e., Forms 6 and 7) and credited onto a revised standards-based Qualifications Framework (Qualifications Framework Inquiry, 1997, pp.8–9, 121–122).

During the time that the Inquiry team met and deliberated, the government had sensed the growing resistance to the strict uniformity imposed by the unit standards common building-block approach and responded by announcing in April 1996 that the Framework would be
'broadened' to allow non-unit standards-based qualifications and degrees to be registered (Irwin, 1997, pp.14–17). Within days of the PPTA Executive receiving the Qualifications Frameworks Inquiry report, the National-New Zealand First coalition government released its own Green Paper outlining 'policies for the future development of the National Qualifications Frameworks', and allowed twelve weeks for public comment and submissions (Ministry of Education, 1997, pp.2–4).

In marked contrast to earlier official documents, the Green Paper acknowledged that the Qualifications Frameworks was contentious, that it had been inordinately expensive for the NZQA to implement, and that unit standards based assessment in the senior secondary school had been cumbersome and excessively time-consuming for teachers to implement (Ministry of Education, 1997, pp.4, 12–13, 19–28). The Green Paper also suggested that 'all major types of qualifications, at all levels and across all subject areas, regardless of how they were designed, taught or assessed' be registered on the Framework once they embraced the 'common currency' of clearly stated outcome statements about what students know and can do (Ministry of Education, 1997, pp.6–7, 14, 21). In other words, the existing norm-referenced School Certificate and University Bursaries examinations could now be registered on the Framework alongside other unit standards-based qualifications (Ministry of Education, 1997, p.26). Despite this apparent concession, the Green Paper continued to champion unit standards-based assessment (Ministry of Education, 1997, pp.21, 26, 28–29, 34) but provided no evidence regarding the educational and/or vocational benefits to students whose learning was being governed by an outcomes-based approach to curriculum and assessment.

Achievement 2001 and the National Certificate of Educational Achievement (NCEA)

With the much-awaited National Qualifications Frameworks White Paper not yet on the educational horizon—it was scheduled for release in December 1997 (Ministry of Education, 1997, p.35) but eventually appeared in October 1999 (Ministry of Education, 1999)—the Minister of Education announced the government's Achievement 2001 qualifications strategy in November 1998 (Creech, 1998). The key features of Achievement 2001 were the abolition of the Sixth Form Certificate (in 2002) and the substitution of a new four-level National Certificate of Educational Achievement (NCEA) that assessed the achievements of Form 5 (level 1) to 7 (levels 3 and 4) students, using a combination of internal and external assessment (Creech, 1998, pp.1–2). The School Certificate and University Bursaries examinations were to be retained with secondary schools offering courses in which students' learning outcomes were assessed through a mixture of Unit Standards (for 'non-conventional' subjects) and
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Achievement Standards (for ‘conventional’ subjects such as English, geography, and history) (Creech, 1998, pp.4-5).

As might be expected, the long overdue White Paper fully endorsed Achievement 2001 and the NCEA. One month later, New Zealanders elected a new (Labour) government with Trevor Mallard as the new Minister of Education. Having inherited Achievement 2001—a policy that Mallard had unequivocally supported whilst in Opposition—the new Minister was keen to see it implemented as soon as possible (New Zealand Education Gazette, 2000, p.20). However, Mallard conceded that the year 2001 deadline was overly ambitious and therefore postponed the introduction of the new NCEA until 2002 to allow additional resources to be developed and trialled, and further teacher professional development to occur (New Zealand Educational Review, 2000, pp.1-2).

‘Achievement Standards’

With the abolition of the School Certificate Examination (effective from 2002), Sixth Form Certificate (effective from 2004) and the University Bursaries examination (effective from 2005), the NCEA will become the sole qualification for senior (16-19 year-old) secondary school students. Awarded to students who can demonstrate that they have met, or exceeded, predefined performance (outcome) standards in individual subjects, the NCEA is earned by accumulating credits on the Qualifications Framework. Typically, each standard is worth three or four credits, regardless of the grade achieved, with a total of 80 credits required to gain a NCEA at a particular level, provided that no more than 20 of those credits are earned through successful achievement at a higher or lower level. Thus, to gain the full NCEA, students will have to amass a total of 240 credits over three years of study (Years 11-13).

Each ‘conventional’ secondary school subject (for example, English, history, mathematics, science, etc.) will be divided into between five and eight Achievement Standards that describe the outcome to be achieved in order to gain credit towards the NCEA. For every Achievement Standard, at each of the four levels, there will be explicit performance criteria for each of the three grades (credit, merit, and excellence). More than half of the Achievement Standards are assessed externally (the remainder are assessed internally) with each school taking responsibility for its own internal assessment, subject to a process of national moderation overseen by National Assessment Panels. By way of comparison, students taking a vocationally related unit standards-based course could gain their NCEA based entirely upon internal assessment.

The special appeal of the new Achievement 2001 initiative in general and the NCEA in particular, according to the NZQA, Ministry of Education
and PPTA triumvirate, is the varied educational and qualification pathways available to academic and vocationally-oriented students from 2002. However, as the history of New Zealand education has amply demonstrated, 'practical', 'technical', 'vocational' education has long occupied an inferior status vis-a-vis academic education (McKenzie, Lee, & Lee, 1990, 1996; Openshaw, Lee, & Lee, 1993). Accordingly, it seems highly unlikely that the different 'academic' (Achievement Standards based) and 'vocational' (unit standards based) pathways envisaged by the Ministry of Education and the NZQA will enjoy the 'parity of esteem' hoped for.

Given the intense criticism that surrounded the implementation of unit standards, it is surprising that the Qualifications Development Group (QDG) endorsed the Achievement Standard as the essential building block of the new Framework. In defining an Achievement Standard as 'a statement [about] what we expect students to know and be able to do in order to gain credits towards a qualification, in contrast to a syllabus or course outline, which simply describes what students should be taught' (New Zealand Qualifications Authority, 2000, p.5), the QDG was adamant that Achievement Standards differed from unit standards in three important respects. First, students taking Achievement Standards can achieve at the credit, merit, or excellence level whereas for unit standards students were either competent or not yet competent. Secondly, Achievement Standards describe broad outcomes unlike the more 'atomised' unit standards. Finally, unlike unit standards, at least half of the Achievement Standards credits in any conventional subject must be externally assessed (New Zealand Qualifications Authority, 2000, p.6).

Critics see little difference between Achievement Standards and unit standards, and argue that the Qualifications Framework remains deeply flawed. The fact that the Secondary Leaders Forum, convened by the Ministry of Education in November 1999, had recommended that 70 per cent of Level One NCEA candidates should pass (they had earlier suggested 80 per cent) when approximately 60 per cent passed School Certificate, seemed to indicate that the new NCEA would be a 'soft' qualification (Cassie, 1999, p.1; Chamberlain, 2000, pp.87-94). Some secondary school principals also distanced themselves from the NCEA on the grounds that it would increase, not decrease, teachers' workloads; encourage plagiarism owing to the greater emphasis on internal assessment; remove comparability between secondary schools; reduce academic standards; and create uncertainty over university entrance requirements (Morris, 2000; Roger, 2000; Taylor, 2000).

Education researchers have also questioned the reliability, validity, and manageability of the NCEA, and have urged teachers and parents to resist
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its implementation on the grounds that it is based on an inherently flawed and sub-standard model of assessment; would further compartmentalise teaching and learning; provide unreliable and invalid assessment information; add to the workload of teachers and schools; and provide insufficient information to allow students' performance to be differentiated (Donnelly, 2000; Education Forum, 2000a, 2000b; Elley, 2000, p.8; Hall, 2000; Locke, 1998, 2000). The PPTA membership, however, was not persuaded to abandon the NCEA when balloted early in November 2000 to gauge their level of support. Of those who returned their ballot papers (approximately 6000 members), 65 per cent supported the NCEA in principle but 82 per cent noted serious concerns about inadequate resources, procedures and policies, and urged the government to work harder to allay their fears (Giddens, 2000a, p.3, 2000b, p.3; McCarthy, 2000a, pp.6-7, 2000b, p.3; Smith, 2000, p.26). Officially, the PPTA Executive applauded the demise of the School Certificate Examination as a 'gate keeping mechanism for drafting people into certain places in society' and welcomed the 'greater inclusiveness' of the NCEA with its 'different qualification pathways' (McCutcheon, cited in Welsh, 2002, pp.18-19).

However, from April 2001 to September 2002, the PPTA and the government were locked in a bitter industrial dispute concerning the secondary school teachers' collective contract. In rejecting the government's new offer in June 2002 (the proposed settlement included a 5.5 per cent pay rise and a $3500 NCEA grant, both over three years, guaranteed non-contact time, and the establishment of an independently chaired Ministerial Taskforce on secondary teachers' remuneration), the PPTA argued that the government should not only compensate secondary school teachers more generously for the significant increase in workload associated with the implementation of the NCEA but also provide significantly more time for teacher professional development (teachers were released for two days in 2000 and two days in 2001) (Dearnaley, 2002; Lewis, 2002). The Minister of Education (Trevor Mallard) was equally insistent that the PPTA was using the NCEA as a bargaining tool in wage negotiations and that teachers should simply get on with the job of ensuring that level 2 of the NCEA would be in place for Year 12 (Form 6) students in 2003. With no immediate solution in sight the PPTA launched an industrial action campaign urging its 14,500 members to work to rule, to withdraw from any extra curricular activities, and not to undertake any more NCEA-related work (Post Primary Teachers' Association, 2002, pp.1-3). The ban was finally lifted in October when the government agreed to ask the Education and Science Committee to undertake an inquiry into the implementation of the NCEA (Education and Science Committee, 2002, p.3).
Nevertheless, many secondary school teachers remain highly sceptical about the promised benefits associated with the introduction of the NCEA. Many senior teachers, heads of department, and principals interviewed by the *New Zealand Listener* (2002) and *North & South* (2003) complained about teacher workload and stress, the significant NCEA-related administration costs incurred by schools, inadequate resourcing and trialling of the new achievement standards, inaccurate (and uncorrected) exemplars remaining on the NZQA website, and the general lack of responsiveness by NZQA to teachers' concerns (Chamberlain, 2000, 2003; Welch, 2002). Other teachers noted a 'culture of silence' where pressure has been brought to bear on those teachers who dared to criticise the standards-based approach to assessment embodied in the NCEA (Chamberlain, 2003, p.45). Roger Moses, a former English teacher, and Principal of Wellington College, summed up the evolution of the NCEA as follows:

Fair, valid and consistent was the catch cry of NZQA in the 1990s as the NCEA began its protracted gestation. The advocates of the new system told us that for too long the New Zealand educational psych had been locked in the thrall of the destructive 50 per cent pass/fail mentality [of School Certificate]. Consequently far too many of our youngsters were consigned to the educational scrap heap at a tender age. The brave new world of NCEA would eliminate this iniquity, recording what students could do rather than what they could not. Standards-based assessment was the way to go; the predicted pass rate was to be approximately 70 per cent. (Moses, cited in Chamberlain, 2003, p.39)

Asked to respond to the tendency for standards-based assessment to lead to curriculum fragmentation, Moses wryly observed: 'It's like calling a pile of mince a bull' (Chamberlain, 2003, p.40).

**Outcomes-based Education: A critique**

It will be recalled that the trend towards the tighter specification of educational outcomes, accompanied by a renewed emphasis by the state and its related education agencies on surveillance and accountability of learners and teachers, has been a dominant feature of curriculum and assessment reforms in the United States of America for much of the twentieth century. Moreover, many American politicians (and some educationists) have long argued that the key to maximising economic productivity and competitiveness lay in raising educational standards, thereby satisfying taxpayers that their publicly funded schools were in fact being measured and monitored in terms of their overall efficiency and effectiveness. What has emerged in America, the United Kingdom, Australia and New Zealand since the mid-1980s are hegemonically embedded outcomes-based curriculum and assessment frameworks in which pre-
determined discrete learning outcomes are tightly prescribed and then arranged (and assessed) in terms of linear and sequential achievement levels. All of this has been underwritten by a scientifically informed technology of curriculum and assessment—one that emerged with increasing force following the 'discovery' of behavioural objectives in the 1950s—whereby curriculum planners sought to steer students along different social and/or vocational tracks, according to their particular skills and aptitudes. The social utility of education thus became the criterion against which economic efficiency would be measured (Kliebard, 1987, p.90).

With the global hegemony of outcomes-based approaches to education firmly entrenched in America, the United Kingdom, Australia and New Zealand, it is timely to review the advantages and disadvantages of restructuring curriculum and assessment systems along these lines.

**Advantages**

The advantages of outcomes-based education, according to its proponents, are numerous. In the first place, the clear specification of outcomes not only provides transparent goals for learners and teachers but also introduces a much-needed rigour to the curriculum and its assessment (Jessup, 1991; Popham, 1987). Such a model is thought to encourage teachers to be clear about the selection of relevant content, methods, resources and assessment for their students (Marsh, 1992; Popham, 1987). Secondly, as Nash has noted, the ostensibly unequivocal and unambiguous structure of an outcomes-based curriculum allows students, parents and teachers to enjoy 'a sense of direction ... based on defined criteria in terms of knowledge, skills and understanding' (Nash, 1995, p.162), provided, of course, that such material can be reduced to discrete predetermined outcomes. Thirdly, because the outcomes-based education model emphasises outputs rather than inputs, it is not concerned with the process by which these outcomes are to be achieved and is therefore well suited to a variety of modes of learning—for example, distance and flexible learning; workplace learning; individual and/or group learning (Burke, 1995; Jessup, 1991). Finally, as Jessup is keen to point out, the concept of mastery is central to an outcomes-based model of education.

[J]t is designed to promote learning. It incorporates many features which make learning more attractive and easier to access. The emphasis on performance learning and attainment encourages more active and participative learning. What the model does not do is assume that there is only one way to learn or even that there is a best way. It recognises individual differences and individual preferences and opportunities. Above all it does not prescribe the form of learning. (Jessup, 1991, p.138)
Disadvantages

Notwithstanding its widespread adoption in many countries, the outcomes-based model of curriculum and assessment reform has consistently been attacked by various teachers' associations and education academics on the grounds that it is theoretically weak and that its implementation has been problematic if not chaotic (Broadfoot, 1996; Gipps and Murphy, 1994; Goldstein, 1997; Goldstein and Lewis, 1996; Hyland, 1994; Murphy and Broadfoot, 1995; Wolf, 1995). There are a number of other complaints that have also been made regarding this utilitarian approach to learning.

In the first place, research has shown that owing to the highly prescriptive (and 'teacher-proof') nature of outcomes-based education, teachers' and students' autonomy is inhibited and teachers become deskilled and deprofessionalised (Hyland, 1994). Secondly, critics complain that the model gives pride of place to performance rather than evaluating the knowledge or understanding that underlies that performance (Lyotard, 1984). Such a one-dimensional emphasis on the practical 'knowing how' rather than the theoretical 'knowing that' means that learning and teaching is governed by pre-determined, predictable and highly specific curricula content and objectives (Hyland, 1994; Marshall, 2000, pp.193-194). Thirdly, by focussing on the mastery of specific outcomes, there is a definite risk that students will regard learning as a highly technical, mechanical and passive process which is complete once their performance has been evaluated and certificated (Hodkinson, 1992). Furthermore, because outcomes-based education reduces all teaching and learning to predictable (behavioural) outcomes, it cannot accommodate ideas that are creative, diverse, problem-based, individual and spontaneous (Darling Hammond, 1994; Lovat & Smith, 1995, p.111). Fourthly, critics have argued that because the outcomes-based education movement is firmly grounded upon behavioural psychology and corporate management principles, politicians and administrators have justified sweeping curriculum reform in terms of a broader economic, labour market and social reform agenda (McTaggart, 1992, p.76).

Outcomes models have also been blamed for exacerbating existing social and cultural inequalities by ranking students (and teachers) for life in an unequal and socially stratified society (Apple, 1995, 1996). Drawing on the experience with outcomes-based curriculum and assessment in England and Wales in the 1990s, Edwards pointed out that:

One of the aims of the National Curriculum and SATs [Standards Assessment Tasks] was to treat and judge all children and schools on equal terms. However, the SAT results reflect not only the quality of school and teachers performance but also entry ability of children and this in turn can also neglect the socio-economic and cultural status of the school's community. (Edwards, 1995, p.14)
It should not be surprising that social justice and equity issues should be all but ignored because the more a family invests in the future schooling success of their children, the greater the temptation for stakeholders to judge the quality of teaching and learning in the classrooms exclusively in terms of a mark or grade attached to individual student performance and interpreted in relation to the student group as a whole. Although the Department for Education and Employment (UK) finally conceded in 1995 that the annual publication of league table examination rankings of schools produced 'misleading' results (DfEE, 1995), competition remains the name of the game and the resulting grade the prime objective, irrespective of the means of its pursuit.

A further criticism of outcomes-based education concerns its potential use as a vehicle for classroom reform. With the key driver behind the introduction of outcomes-based education being the political desire for greater external accountability, efficiency, and centralised control, it was inevitable that its implementation would be accompanied by an increasingly intrusive state education bureaucracy and the concomitant removal of teachers from the education policy making process (Aldrich & White, 1998; Apple, 1988; Lawton, 1996; Thrupp, 2001a, 2001b). Furthermore, as Apple (1990, 1995, 1996) has observed, numerous governments have actively disempowered and deskillied their state school teachers over the last decade by adopting a highly managerial and technicist view of education that emphasises predetermined curriculum outcomes and rigid forms of testing and assessment. Predictably, teachers and their associated unions have strenuously resisted this development on the grounds that it devalues both the process of learning and teachers' professional knowledge (Aldrich & White, 1998).

Perhaps the most damning observation about an outcomes-based education model concerns the overwhelming absence of a theoretically rigorous (and arguably psychometric) research base regarding the benefits to students and teachers of arranging the curriculum in terms of sequential outcome statements (i.e., profiles) and achievement levels (Broadfoot, 1996; Gipps & Murphy, 1994; Goldstein & Lewis, 1996; Hyland, 1994; Lum, 1999; Murphy & Broadfoot, 1995; Wolf, 1995). Taking up this point in her stinging critique entitled Curriculum and Pseudo-Science, Collins (1994a) argues that the Australian curriculum profiles are socially and culturally constructed artefacts.

The Levels, in so far as they are anything at all, are simply a map of the order of learning of the majority of children .... Levels do not mark a necessary ordering of any developmental sequence .... but are simply a setting out of particular, and likely to change, majority cultural patterns. If particular individual children do not conform, this tells us nothing except that they
Elley has made similar observations about the assumptions underlying the organisation of knowledge (and learning) in the New Zealand Curriculum Framework and noted that its rigid encasement in an arbitrary eight level structure has no basis in curriculum, learning theory or teacher's experience. Indeed, Elley claims that:

The link between content, aims and outcomes is not the same in mathematics or technology as it is in English or social science ... the levels have been set where they are, chiefly on the basis of the subjective opinions of the teachers who served on the committees .... More serious is the question of whether the sequencing of knowledge and skills constitutes a clear progression at all ... in many parts of the curriculum, students' knowledge growth is individual and idiosyncratic. Their knowledge consists of an infinity of particulars, not of logically organised packages—mastered in all-or-nothing fashion. (Elley, 1996, p.12)

The final word belongs to the Eltis Committee (1995) who carefully investigated the development of outcomes and profiles in New South Wales schools and sounded the following note of warning over the wholesale adoption of outcomes-based education in Australian schools:

A search of the relevant ERIC literature from 1993 until [1995] reveals numerous entries (close to three thousand) under the umbrella term 'outcomes-based education'. A closer inspection of some three hundred of these reveals that most provide a description or definition of the approach alongside other restructuring reforms .... Few demonstrate substantive support for their use beyond general statements about improved test performance or better attitudes to learning by students and about increased accountability .... It would seem that very few research investigations have studied the implications and effects of using outcomes-based education models. (Eltis, 1995, pp.15–16)

Despite sustained and sophisticated theoretical censure, outcome-based education and assessment practices have managed to dominate almost every aspect of contemporary educational discourse in the United States, United Kingdom, Australia and New Zealand since the late-1980s. Indeed, it appears that these ideas might actually flourish when a nation's economy is perceived to be under-performing and when the state deems certain kinds of 'relevant' knowledge, understandings, and skills to be mandatory in the school curriculum in order to transform the economy (Beck, 1981; Marshall, 2000). But what is even more remarkable is that while the failings of outcome-based education and assessment are widely known,
its advocates have thus far shown a blatant disregard of the formidable theoretical critique and instead persist in drawing attention to the more pragmatic concerns of how to state, in minute detail, the exact outcomes that are required (Lum, 1999).

Contemporary politics of outcomes-based education in New Zealand

Following the National Party's electoral defeat in 1999, the Labour government has endeavoured to interrupt some aspects of the highly competitive managerial model of education by abolishing bulk funding, de-emphasising 'school choice' (by reintroducing school zoning), ameliorating some of the hardship caused by escalating tertiary student fees (by imposing a fees freeze) and, importantly, by seeking to involve teachers once again in the education policymaking process. However, having given its unqualified (and uncritical) support for the knowledge economy/society (and globalisation) which requires the state to continually monitor students' learning outcomes in order to maximise economic and social efficiency, Labour cannot abandon the outcomes-based philosophy so inextricably woven into both the Curriculum and National Qualifications Frameworks. Indeed, the government's commitment to outcomes-based education is further reiterated in the Minister of Education's policy document Educational Priorities for New Zealand where teachers and educators are urged to be 'more explicitly focussed on outcomes' and to make 'learning outcomes central to all debates about education' (Mallard, 2003, pp.6, 10).

Not to be outdone, the National Party released its Schools of Excellence discussion paper in September 2003, reawakening its earlier (1998) plan for national testing to be introduced for Years 1, 4 (in literacy and numeracy) and 8 (in English, mathematics and science) students (Lee & Lee, 2000; Smith, 2003, p.5). National testing was justified on the grounds that it would 'introduce accountability into the system ... [and] raise standards by bringing teaching practices, school management and educational policies into sharp focus' (p.5). The following month, the Education Forum (a right-wing education lobby group) issued its New Deal policy paper outlining the advantages of national testing:

A key component of the new system of school accountability would be the introduction of national assessment. National testing ... can have many benefits. It is one of the few sources of objective information on school performance and provides a consistent, useful benchmark to compare schools across communities and over time ... . We recommend that a system of national assessment be introduced into state primary schools, concentrating initially on literacy and numeracy ... . One of the fundamentals of the system should be to 'test early
Clearly, the language of educational outcomes, standards and accountability is as politically charged today as it was in the past.

**Conclusion: Some lessons, cautions and challenges**

Stake (1991) alerts us to four key assumptions that have underpinned the rise of outcomes-based education: that people can agree on which educational outcomes are desirable; that we have an adequate language for the specification of educational goals; that we can measure the attainment of those goals; and that we can use the information to improve teaching (Stake, 1991, pp.xxiv–xxv). Each of these assumptions is concerned only with the success of implementation, not with the appropriateness of the goals. Accordingly, these outcomes become external to the learning process and quickly become reduced to measurable objectives. Apple further argues that the policy shift from contents-based syllabi to outcomes-based curriculum statements is invariably accompanied by the call for a national curriculum which, in turn, provides the framework within which national testing can function (Apple, 1996, p.32). He also poses the question: whose reforms are these and who benefits? (Apple, 1996, p.26).

The particular danger of using outcomes-based education to pursue higher standards is that politicians and administrators need to recognise that the tools designed to measure the output of the system (for example, tests and examinations) will invariably have an impact on the education system as a whole. Furthermore, because poor assessment practices often narrow the curriculum and depress standards, it does not follow that better assessment will automatically improve the curriculum and raise educational standards. In other words, assessment and curriculum reform should proceed in tandem and not drive one another.

The blunt reality, seemingly forgotten in the race to introduce new curriculum and assessment models, is that innovation is always a time-consuming, challenging, and frequently traumatic process for teachers. For curriculum and assessment reform to succeed, teachers must not only be actively involved in its design and implementation but also be convinced that it will be workable and meaningful for their students. Failure to do so will almost certainly guarantee immediate teacher resistance, followed by outright non-compliance, and an exodus of staff from the schools.
Finally, the lesson to be learned from studying the establishment and growth of outcomes-based education systems in the United States, England, Australia and New Zealand is that any reforms in curriculum and assessment must acknowledge the multitudinous and complex ways in which human beings develop. This involves the very essence of the educational process—learning, knowledge, fairness, opportunity, and personal growth. The time is ripe for innovative solutions that allow us to build an educational culture that is genuinely intellectual in character and which provides ample opportunities for exercising the imagination of learners and teachers, for exploring fresh (and unplanned) possibilities, and for questioning received wisdom as much as getting the 'correct' answers. This is no easy call for those who continually seek instant (and simple) solutions to complex educational problems. There are no perfect solutions. But if educationists and politicians are prepared to confront these issues and to engage in open and constructive debate, then there is at least some chance of significantly improving the educational experiences of students and also raising the all-important morale of the teaching profession. It is these issues that we urgently need to debate in the twenty-first century.

Above all, we must resist the temptation to pursue certainty in both our pedagogical methods and educational outcomes because meaningful educational experiences and knowledge come as much from the pedagogical journey itself as from the certainty of the destination.

NOTES

1. A Nation at Risk (1983) investigated the declining state of the American education system, as measured by high school student performance in the United States and other countries, identified specific problem areas, and offered numerous recommendations for improvement. The five major recommendations appear, respectively, under the headings: content, standards and expectations, time, teaching, leadership and fiscal support. Recommendations pertaining to content included the strengthening of high school graduation requirements by establishing minimum requirements for each student of 4 years of English, 3 years of mathematics, 3 years of science, 3 years of social studies and one-half year of computer science. With regard to standards and expectations, schools, colleges, and universities were encouraged to adopt more rigorous and measurable standards and higher expectations for academic performance and student conduct. Four-year colleges and universities, in particular, were urged to raise their admission requirements. The report also advised that more time be devoted to students learning the 'New Basics' which may, in turn, require a longer school day or a lengthened school year. (National Commission on Excellence in Education. (1983). A Nation at Risk: The imperative for educational reform. An open letter to the American people. A report to the nation and the Secretary of Education. Department of Education, Washington, DC.: U.S. Government Printing Office.)
Those who know something about the history of English education will also recognise that the National Curriculum of 1988 echoed the collection of academic subjects decreed by Robert Morant in 1904 as comprising the legitimate secondary school curriculum.

Torrance (1997) notes that 'Up to the end of 1995 only four reports on National Curriculum Test results had been published (on 7-year-olds in 1991, 1992, and 1994, and 14-year-olds in 1994) comprising a total of only 121 pages of statistics across all four reports: hardly value for money, given the vast amounts of political and material resources poured into the enterprise ...'. Furthermore, no reports have focussed on aggregate figures broken down by profile component and sex rather than individual school results (p.324).

It should be noted that there were methodological problems with Fieldhouse's survey: there were difficulties in comparing standards in the 1955 and 1956 tests with those in the earlier years, and the composition of school classes had changed owing to the narrowing of the age range of each class as a result of 'social promotion'.

'Learning elements' are statements of intellectual, practical or attitudinal competence exhibited by the learner. 'Performance criteria' are statements that specify precise performance standards for which evidence must be produced.

This concept is associated with Jurgen Habermas (1971) and refers to a technical-linear (or means-ends) approach or method, modelled on scientific practice, and applied to the study and analysis of complex economic, educational, political or social issues. Habermas reminds us that while such models appear entirely rational, neutral and objective, they are in fact highly political, contextual and value-laden.

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