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Educational Efficiency, Accountability, and Performativity: Using curriculum, assessment and qualification reforms to redefine 'knowledge'

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"The real voyage of discovery consists not in seeking new landscapes but in having new eyes." (Marcel Proust, 1871-1922)

RÉSUMÉ

Depuis les années 1980, les systèmes éducatifs des pays développés ont été le théâtre de réformes profondes et au long cours, avec pour visées l'amélioration de leur efficience économique ; l'amélioration des performances de leur école et des pratiques qui y ont cours ; l'élévation des résultats de leurs élèves (par la définition formelle d'objectifs) ; la mise en œuvre d'un contrôle plus étroit du travail des enseignants et des curricula scolaires (Broadfoot, 1996, 2001, 2007; Levin, 1998; Olssen & Peters, 2005).

Un des éléments-clés de la demande globale pour un pilotage plus rigoureux des 'standards' et de la qualité en éducation et pour un accroissement de l'exigence de reddition de comptes pour les institutions d'éducation et leurs personnels, fut la mise en place de réformes scolaires et curriculaires dans lesquels l'évaluation des politiques est le corrolaire de leur mise en œuvre (*outcome-based approach*) (Kliebard, 2005; Lee, 2003). A partir du début des années 1990, la quête d'une évaluation quantitative des performances en éducation connut un tel engouement qu'il a progressivement été omniprésent dans les débats du les politiques et les pratiques éducatives, tendant à affecter les conceptions même des savoirs et de leur pertinence (*worthwhile knowledge*),

et ce en particulier en Australie et Nouvelle Zélande, en Grande-Bretagne et aux Etats-Unis (Lee 2003).

Cet article retrace la montée de ce paradigme désormais dominant, les ressorts politiques et les effets sociaux de cette éducation par la performance dans l'Amérique du vingtième siècle, de façon comparative. Il offre une lecture critique croisée de ces évolutions et de ces politiques et conçoit que les politiques éducatives fondées sur la probation et la performance fournissent aux décideurs, politiques, administrateurs des systèmes éducatifs des arguments et des outils pour entreprendre des réformes de grande ampleur visant essentiellement l'accroissement de l'efficacité, mais aussi de l'efficience de systèmes désormais gouvernés par une raison économique.

ABSTRACT

Since the 1980s western public (state) education systems have been subjected to seemingly endless and wide-ranging reforms designed to enhance economic efficiency and productivity; improve the efficiency, effectiveness, and quality of schooling; raise student achievement (by clearly specifying performance targets and outcomes); and ensure greater surveillance and tighter control over the school curriculum, and the professional work and activities of classroom teachers (Broadfoot, 1996, 2001, 2007; Levin, 1998; Olssen & Peters, 2005).

One key feature of the global demand for a more rigorous monitoring of educational 'standards' and increased educational accountability has been the introduction of an outcomes-based approach to school curriculum and assessment reform (Kliebard, 2005; Lee, 2003). By the early 1990s the quest for quantifiable educational outcomes was so successful that it came to dominate educational policy and practice, and to redefine what counted as 'worthwhile knowledge', in Australia, Britain, New Zealand, and the USA (Lee, 2003).

This paper traces and evaluates the social efficiency origins of outcomes-based education (OBE) in twentieth century America; offers a detailed critique of OBE; and concludes that OBE provides politicians, policymakers, and education administrators with a convenient, taken-for-granted rationale for initiating wide-ranging education reforms ostensibly to improve economic efficiency, productivity, and prosperity.

Introduction: Using Curriculum and Assessment to Reform Schooling

The highly complex ways by which school curricula and assessment systems are organised, and the myriad of political and social processes that accompany it, have profound and long-term consequences for

students' learning and teachers' work. As Young (1971) had argued, *what* and *who* shapes the school curriculum are vitally important questions because they involve the inclusion and exclusion of certain kinds of knowledge, ways of knowing, and world views. He concludes with the observation that:

> [T]hose 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 absent from Young's account is the fundamental 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 better 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 that teachers become little more than rule-bound technicians are greatly increased. Thus what students and teachers know best are the kinds of expectations as laid down in official curriculum statements and it is these expectations that invariably govern the style (and content) of classroom teaching and learning.

Apple (1990, 1995a, 1995b, 1996) helps us to understand better the political processes at work here. For Apple, the school curriculum is not simply a neutral assemblage of knowledge somehow appearing in the texts and classrooms of a nation; rather it represents a *selection* of what is deemed acceptable and legitimate knowledge at a particular point in time. Being the end product of cultural, economic, political, and social contestation, negotiation 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 used to assess and evaluate students' acquisition of knowledge all serve to highlight the

patterns of hegemonic domination and subordination in a given society.

Outcomes-based education: International trends and context

Levin (1998) has argued that the pace and spread of reform within and across Western state education systems during the 1980s and 1990s was nothing short of a "policy epidemic". More recently, Ball's (2003) research has revealed the "unstable, uneven but apparently unstoppable flood of closely inter-related reform ideas permeating and reorienting education systems in diverse social and policy locations which have very different histories" (p. 215). He further observed that:

> This epidemic is 'carried' by powerful agents, like the World Bank and the OECD; it appeals to politicians of diverse persuasions; and is becoming embedded in the 'assumptive worlds' of many academic educators. The novelty of this epidemic of reform is that it does not simply change what people, as educators, scholars and researchers do, it changes who they are. (p. 215)

Like Ball, Kenway et al. (1993) were interested in identifying and analysing the vocabulary used to convey and promote—if not justify—the radical restructuring of Western public education systems. They concluded that:

> The market metaphor heads up a new policy and administration lexicon in education which includes such terms as educational property, educational enterprise, entrepreneurial approaches to education, educational services, products, packages, sponsors, commodities and consumers, value-added education, user-pays, choice, competition and so on. These and other terms both reflect and are helping to bring into effect a relatively new and different era in public education … one in which educational purposes, languages and practices are being subsumed by marketing purposes, languages and practices. (Kenway et al., 1993, p. 4. Emphasis in original)

These (increasingly global) reforms, Macedo (1994) claimed, resulted in "an overdose of education reform pollution controlled mostly by a conservative discourse that celebrates a language of management, competition, testing, choice, and free enterprise" (p. 137). One key feature of the relentless global demand for enhanced educational accountability, a more rigorous monitoring of educational standards, and national and international benchmarking has been the introduction of outcomes-based reforms to education in general and school curriculum and assessment in particular. In fact, the drive for quantifiable educational results (or 'outcomes') has been so successful that it quickly dominated educational policy and practice discourse in Australia, England, Scotland, New Zealand, and the USA by the early 1990s (Brown & Lauder, 1992; Bryce & Humes, 1999; Gordon & Whitty, 1997; Lee, 2003; Paterson, 2000; Whitty, Power, & Halpin, 1998).

Not surprisingly this outcomes-based ('one-size-fits-all') paradigm had a profound impact upon both the content and style of contemporary schooling in these countries. Having first carefully identified and described the expected learning outcomes in minute detail, along with devising objective mechanisms to report and thus certificate students' achievements, educational administrators could then hold teachers accountable for the relative educational achievement of their students. Without exception the prescription for optimal educational accountability has involved eight key interrelated elements:

1. Educational change framed increasingly in economic terms;
2. The promotion of education reform through changes in governance—for example, the devolution of financial responsibility to individual schools;
3. The establishment of new external and centrally administered school inspection (or audit) systems;
4. The increased marketisation of education, with additional resources allocated to private sector institutions;
5. Increased criticism of education and training, in particular the existence of an academic-vocational divide;
6. The implementation of a national (or, in the case of Australia and the USA, state-wide) school curriculum;
7. The introduction of nationwide assessment strategies to monitor and report on educational standards; and

8. The publication of comparative results, usually in the form of 'league tables', of schools' achievement scores on national curriculum tests and public school examinations. (Ball, 2000, 2003; Carnoy et al., 2003; Cresswell, 2000; Gerwitz, Ball & Bowe; Ladd & Fiske, 2003; Lee, 2003; Levin, 1998; Levin & Fullan, 2008; Sahlberg, 2010)

What is noteworthy here is the extent to which global economic and educational concerns and pressures 'migrated' to individual countries (Edwards et al., 1999; Green, 1999) and then quickly became constructed and embedded hegemonically as universalised 'best practice' (one-size-fits-all) policies in each of these countries (Dale, 1999; Gordon & Whitty, 1997). As the following discussion will demonstrate, curriculum and assessment are two areas that have been at the centre of major educational reform in Australia, England, Scotland and New Zealand. In each of these countries national curriculum and assessment frameworks have been introduced and implemented that bear striking similarities structurally (i.e., they employ sequential levels, essential learning areas, and outcomes), semantically (i.e., the adoption of attainment targets and strands), and economically (i.e., education is linked with national economic success and prosperity) (Lee, 2003). These wide-ranging curriculum and assessment reforms, Smyth and Shacklock (1998) concluded, involve fundamental questions about the global shift towards "recentralizing control through national curricula, testing, appraisal, policy formulation, profiling, auditing and the like, while giving the impression of decentralization" (p. 20).

Decentralisation and the changing discourse of 'knowledge'

Decentralisation, or "governing at a distance" (Smyth & Shacklock, 1998, p. 16), provided the state with a legitimate rationale to exercise additional control and surveillance over education by insisting upon greater accountability, introducing regular teacher appraisal mechanisms, publishing clearly specified performance targets and outputs, and requiring teachers not only to measure and test students but also to report using mandated standards and systems (Burnard & White, 2008; Sahlberg, 2010). Such state control and scrutiny, Codd

(1997) argued, raises significant questions about the very nature of knowledge and, moreover, about what should count as knowledge:

> The ideology of intrumentalism emphasis knowledge as product, knowledge as performance, [and] knowledge as commodity. What is diminished, as a consequence, is knowledge as insight, knowledge as appreciation, [and] knowledge as understanding. Thus what we have is the replacement of a personal developmental or socially transformative view of education by a narrow instrumentalist view. (Codd, 1997, p. 134)

The concept that knowledge is inherently good and valuable in itself is rendered increasingly obsolete by the reductionist and instrumentalist view that knowledge now is nothing more than a set of skills, competencies, and information, a product or commodity, capable of being exchanged in the commercial and industrial marketplace.

What is at stake here is the radical shift from education being a never-ending pedagogical process—that is, knowledge for its own sake—to one that is underpinned by human capital theor —that is, wherein higher levels of education are seen as necessary for the labour force to cope with rapid technological change and also contribute to economic growth, nationally and internationally (Marginson, 1993, 1997; Olssen & Peters, 2005). Thus, in terms of the school curriculum, what counts as knowledge, the complex ways in which it is organised, who is authorised to teach it, and the various mechanisms used to assess and evaluate students' acquisition of knowledge together determine the style of classroom teaching and the nature, scope, and content of what is learned. As Young (1971) has argued, *what* and *who* shapes the school curriculum are significant questions because they involve decisions about the inclusion and exclusion of certain kinds of knowledge, and ways of knowing. Moreover, the curriculum encapsulates particular worldviews and can reveal the extent to which political domination and subordination is present in different societies (Lee, 2003).

Performativity, school effectiveness, and 'blame and shame'

The decisive political and bureaucratic shift internationally since the early 1990s towards outcomes-based education, (competitive) performance indicators, monitoring and surveillance, and the production of information and documentation can best be understood in terms of Lyotard's (1984) concept of *performativity* whereby "experience is nothing but productivity is everything" (Ball, 2012, p. 19) and efficiency and effectiveness are measured in terms of an input/output ratio. The force, logic and technology of performativity, according to Ball (2003), is now so insidious and sophisticated that it is impossible to escape:

> [It] is a culture and a mode of regulation that employs judgements, comparisons and displays as a means of incentive, control, attrition and change – based on rewards and sanctions…. The performance (of individual subjects or organisations) serve as measures of productivity or output, of display of 'quality' … As such they stand for, encapsulate or represent the worth, quality or value of an individual or organisation within a field of judgement. The issue of who controls the field of judgement is crucial….Who is it that determines what is to count as valuable, effective or satisfactory performance and what measures or indicators are considered valid? (p. 216)

This important shift has been accompanied by the publication of comparative school performance data ('league tables'), underpinned by the seemingly unshakeable faith that accumulating such data necessarily leads to significant and quantifiable improvements in students' achievements and overall school effectiveness (Broadfoot, 2001, 2007; Sahlberg, 2010; Torrance, 1995, 1997). Inevitably, a common currency that discloses the relative worth, efficiency, and quality of individual schools emerges; one that is focused narrowly on a comparative, competitive, and allegedly objective ranking of schools rather than one that attempts to identify the underlying factors that might provide some explanation for different levels of school performance.

With the philosophy of 'school choice' deeply ingrained in the public imagination by the early 1990s educational policymakers became remarkably adept at evaluating schools, school principals, and classroom teachers in terms of their students' achievements. The educational consequences of embracing this competitive market-driven ethos, with schools labelled as either successful (and effective) or failing (and ineffective) on the basis of students' relative examination performance, have proved catastrophic: parents removed their children from 'losing' school and enrolled them in 'winning' state (or private) schools (Ball, 1997; Gordon, 1994; Gordon & Whitty, 1997; Lauder, Hughes, & Watson, 1999; Reich, 1991; Thrupp, 1998, 1999). Thereafter the 'blamed and shamed' schools' rolls continued to decline, teacher and student confidence and morale became eroded, and the schools experienced ongoing problems in recruiting and retaining staff (Ball, 2003; Ball & Vincent, 2007; Fiske & Ladd, 2000; Goldstein, 1997; Goldstein & Lewis, 1996; Gordon, 1994; Ladd & Fiske, 2003; Lauder et al., 1999; Thrupp, 1999). A similar pattern emerged in New Zealand primary and secondary schools attended predominantly by working-class Maori and Pacific Island students, where the discursive polarisation of 'good' or 'bad' results came to be associated with resource rich or resource poor schools (Ainsworth, 1994; Fiske & Ladd, 2000; Gordon, 1994; Ladd & Fiske, 2003; Lauder, 1994; Thrupp, 1998; Waslander & Thrupp, 1995).

The discourse of school failure raises important questions about how school effectiveness can (and should) be defined and measured. The political rhetoric claims that simply by publishing information about students' performance in state-funded schools, public awareness about educational standards (and of the quality of educational provision) will be heightened and school performance enhanced. Such a view, however, fails to acknowledge the limitations in adopting a performance-based framework for evaluating not only school and teacher effectiveness but also student learning and achievement. The research work of Black (1994, 1998), Broadfoot (1996, 2001, 2007), Cresswell (2000), Gipps and Murphy (1994), Murphy and Broadfoot (1995), Nuttall (1986), Torrance (1995, 1997) and Wolf (1995), for example, all serve as a useful reminder that students' test and examination scores seldom provide statistically meaningful evidence of overall schooling efficiency and in practice do nothing to raise educational standards per se. Consequently, any attempt to link schooling effectiveness with educational standards and students'

scholastic performance becomes highly problematic in light of the robust sociological evidence regarding the complex inter-relationship between family values, practices, and resources, and differential levels of educational and social achievement (Alexander, 2012; Lauder et al. 1999; Lupton, 2004, 2005; Nash, 1993, 1999, 2001; Nash & Harker, 1997, 2005; Reay, 2006; Reich, 1991; Thrupp, 2007).

Notwithstanding the above-mentioned limitations, there still is a need and place for useful diagnostic measures for assessing students' achievements and, furthermore, for employing school-level educational performance indicators that draw upon qualitative and quantitative student achievement data. However, it is important to acknowledge that currently no single method, instrument, or measure of student achievement exists that is capable of providing fair and statistically accurate comparisons both within and between schools. Moreover, given the specific and extremely complex cultural, economic, political, and social contexts within which education systems function, it is disingenuous to argue that the compilation of students' scores on tests and examinations provides valid and reliable evidence of the quality of education systems nationally and internationally. With political pressure for accountability likely to increase in the foreseeable future, coupled with the increased public demand for schools' league table rankings to be compiled and published, the most obvious and readily accessible measures of schooling outcomes (and, some commentators would claim, schooling efficiency) will be those derived from assessing and monitoring students' academic performance.

The (mis)management of educational trust and teachers' professional autonomy

The emphasis on performance management in education has radically altered, if not reconstructed, the daily working lives of school teachers (Codd, 1997, 1999; Gerwitz, Ball, & Bowe, 1995; Hargreaves, 1994; Smyth & Shacklock, 1998). Notwithstanding the grudging acceptance on the part of politicians concerning teachers' expertise in relation to educational pedagogy and their subject/curriculum/discipline knowledge, teachers continue to be blamed for school failure and, consequently, are subjected to much

greater levels of surveillance, monitoring, and control (Helsby, 1999; Sahlberg, 2010).

The introduction of the New Public Management ideology, wherein organisational change is achieved through the more efficient market-oriented delivery of public services, has ensured that teachers now "take responsibility for (but not power over) the achievement of pre-specified organisational goals" (Helsby, 1999, p. 30). Apple (1990, 1995a, 1996) has made much the same observation but went further, having argued that rather than becoming active professional developers of their own curricula, teachers now are deprofessionalised by virtue of being reduced to proletarianised technicians delivering pre-determined, externally-set, teacher-proof curricula. Thus, teaching and teachers' work have increasingly become subjected to the dictates of managerialism through the use of pre-specified, centrally imposed, curriculum and assessment performance criteria and frameworks. The consequence of this subordination, Codd (1999) explained, has been the shift from an internal (high trust) to an external (low trust) model of professional accountability within which teachers' involvement and voice in educational matters becomes marginalised. Commenting on the central importance of an ethic of unconditional trust in education (and teachers), Codd concluded that:

> [It] refers to a relational condition existing between people in a given social [and educational] context. It is an attitude or a disposition from which people will act towards each other in particular ways. These ways of acting and relating will presuppose principles such as fairness and respect, and will entail virtues such as honesty (or veracity), friendliness and care. When conceived in this way, trust is inseparable from a way of life. It has to be sustained within a communal tradition, in which it is upheld by daily social interactions and practices. Otherwise, it gradually withers and disappears. (Codd, 1999, p. 49)

In short, administrators have won the right to (micro) manage the state education system, thus ensuring that teachers are regarded more as a workforce to be controlled rather than being a self-regulating body of professionals (Codd, 1999; Green, 1999; Halsey et al., 1997).

With the ever-present spectre of underachievement, coupled with the state's determination to hold teachers accountable for continually improving their performance, it is not surprising that many feel insecure about their employment and their future. The state, though, views the matter very differently, maintaining that teachers who resist being held accountable for their performance are being less than professional and thereby are unworthy recipients of taxpayer funding and support (Callincos, 1999, 2001; DfEE, 2001; Husbands, 2001).

While it is undoubtedly true that the incorporation of managerialist principles into the organisation and operation of education has resulted in teachers' work being reconfigured, it should also be acknowledged that teachers do have agency and are capable of challenging their increasingly marginalised status and 'voice' (Elliot, 1998; Smyth & Shacklock, 1998). Such contestation by teachers, Codd (1999) explained, requires a fundamental reconceptualisation of the nature of teacher professionalism, where teachers are encouraged to interrogate their own knowledge and role, and to engage in genuinely reflexive and democratic debate with their communities and politicians about the purposes of education and their contribution to students' learning. Moreover, given that teachers' work is so often construed politically as being central to the education and training of those who will enter the 'knowledge economy', one might imagine that greater emphasis should be given to encouraging high levels of trust and autonomy in the teaching profession. Not to do so, it could be argued, is to consign teachers to the status of a servant rather than an empowered professional, thus threatening the very essence, if not viability, of achieving a highly skilled, highly wage, knowledge-based economy and society (Avis, 2000, 2001, 2003). O'Neill's (2002) research provides a timely reminder that ultimately it is the professionalism of teachers, coupled with political and public trust in that professionalism, that produces pedagogically defendable curriculum and assessment policies and practices to improve the quality of student learning. "Trust", she concluded, "is hard earned and easily dissipated. It is valuable 'social capital' and not to be squandered" (pp. 6-7).

Outcomes-Based Education: The American Context

The Evolution of the Social Efficiency Movement

What is often forgotten, however, is that 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, in fact 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.

Having outlined his views on industrial efficiency in his seminal work, *Principles of Scientific Management* (1911), Taylor became highly sought after as a management consultant to numerous American industrialists who struggled to find ways to extract maximum efficiency (profit) from their factories and workers. The key to understanding scientific management, he believed, lay in adopting a rigorous time-and-motion analysis of every movement of expert workers, breaking complex tasks down into their most basic 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 synergies 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 (Ravitch, 1983; Tyack, 1974).

Educational Efficiency and the rise of the 'Scientific Curriculum'

Three leading figures were responsible for introducing the doctrine of educational efficiency in America: 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 inside the nations' classrooms and because the quality and performance of its teachers was poor. Rice's solution was simple: 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. In so doing the results of one school could then be compared with others to establish an index of relative school efficiency.

Writing at about the same time as Rice, Franklin Bobbitt, from the University of Chicago's Department of Education, 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 being 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 stated that the schools' main 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 immediately useful for their future social and vocational destinations (p. 269). The following year Bobbitt outlined what he regarded as being the key strength of scientific curriculum reform: 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).

The attractiveness of Bobbitt's utilitarian curriculum model was not lost on leading American industrialists who believed that it would not only better prepare school leavers for the workforce but also address the serious shortage of skilled labour caused by the nation's involvement in World War 1 and the halting of immigration between 1915 and 1920 (Callahan, 1962; Cremin, 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 means to enhanced social efficiency, Bobbitt published his state-of-the-art text, *The Curriculum*, in 1918. The appeal of Bobbitt's theory was that 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). Echoing Taylor's scientific description of the efficient factory worker, Bobbitt was adamant that scientific analysis alone would reveal what society wanted from its schools. Such analysis would allow schools to concentrate only on what was directly relevant to the immediate needs of modern American industry.

Rice and Bobbitt found a strong ally in Elwood Cubberly, Stanford University's Foundation Dean of Education. Employed by numerous school boards to undertake cost-benefit analyses of the overall quality of education, Cubberly (1916) 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, [and] the elimination of waste in manufacture…. (Cubberly, pp. 337-338, quoted in Callahan, 1962, p. 97)

Embedded in Cubberly's understanding of social efficiency theory was the central cannon of the scientific curriculum makers—i.e., 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 students, a standardised teacher-proof curriculum was born**.** Such a mechanised and regulated teaching and learning strategy had immense appeal to school administrators who had long sought evidence regarding the efficiency (or otherwise) of American teachers.

However, there was a price to be paid for embracing the scientific curriculum making model so uncritically—teachers now were destined to become rule-bound and results-driven technicians. With scientific curriculum making embedded so hegemonically in contemporary educational theory, no thought was given to inviting teachers to assist in framing and revising the very curriculum they were charged with implementing. School administrators, it seems, were not yet willing to concede that teachers' classroom experiences needed to be incorporated into ongoing curriculum planning and reform.

Social Reconstructionism

In the late 1920s, the vista of never ending economic and social prosperity for America ended abruptly with the Wall Street stock market collapse and the worsening impact of the global economic depression. With public support for the social efficiency movement evaporating in line with the fast eroding economic, educational and social benefits promised by its disciples, the doctrine of social efficiency was displaced by the rise of *social reconstructionism*.

In marked contrast to the efficiency theorists, the social reconstructionists, led by George Counts from the University of Chicago, argued that the school curriculum could not be constructed simply from a scientific analysis of pupils' (and teachers') activities, nor could standards be derived and determined objectively (Counts, 1930). Singling out the "orgy of testing" for special attention, Counts criticised the "machine culture" of American schools, the resultant curriculum fragmentation, the dominant non-inclusive (anti-democratic) values and interests of middle-class American society (pp. 126, 137-138, 147), and the absence of core values such as social justice and social reform in any educational doctrine (Counts, 1932a).

Having tapped a raw nerve with the nation's dispirited educators, Counts outlined the critical economic and social problems confronting America in his book, *Dare the School Build a New Social Order?*, published in 1932 (Counts, 1932b). Adamant that the time was ripe for reorienting the school curriculum to allow students and teachers to become informed social critics, Counts' central hypothesis—that the nation's schools provided the key site for the reconstruction of American life—quickly captured the imagination of educators and politicians alike. The fact that President Roosevelt's 1933 'New Deal' domestic social rejuvenation reform programme resonated with Counts' educational thinking (Callahan, 1962) helped to pave the way for teachers to break with tradition by introducing their pupils to the realities of American society and the factors that had shaped its development.

World War Two and 'Life Adjustment Education'

It was one thing to propose the reformation of the school curriculum along social reconstructionist lines but quite another for American teachers and school administrators to translate these proposals into successful classroom practice. Moreover, as America became increasingly preoccupied with the prospect of world conflict, any suggestion of a new social order was all but squashed by the rising tide of patriotism. When America finally entered into World War Two on 8 December 1941, its educational leaders were unanimous that the schools' core function was to protect and perpetuate the values of a modern democratic society (Cremin, 1962; Ravitch, 1983; 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—American school leavers either enlisted for the armed forces or sought 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 the particular strengths of each high school student to be identified 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 vocational lines, the life adjustment educators claimed, was that it forced the traditionally academic high schools to broaden their curricular offerings 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 capable of 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* (1945), urged the introduction of a *general education* curriculum wherein every American high school student, irrespective of their academic abilities

and vocational ambitions, studied a common core of four subjects (English, mathematics, science, and social studies) for at least half of the time they were in school. In the time that remained, students would enrol in other subjects (electives) that interested them (Harvard Committee, 1945). However, Bobbitt, now an elder statesman in the curriculum world, viewed the matter very differently and reiterated his earlier view (and those of the life adjustment educators) that the needs of the majority of high school students would best be met when the curriculum included specific skills and competencies, and when school administrators demanded that all students be taught how to perform these efficiently (Bobbitt, 1946; Callahan, 1962).

The 'Anti-Intellectual' Crisis

By the late 1940s, many American academics were condemning the direction that public education was heading. The publication in 1949 of Mortimer Smith's book, *And Madly Teach*, 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 quickly joined in the debate, united in their view that life adjustment courses were wholly responsible for subjugating conventional curriculum subjects (Fuller, 1951; Bestor, 1954). These counterattacks further cemented the status of the academic curriculum as being pivotal 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 they had lost their engineering, scientific and technological edge because their schools had become intellectually soft compared with the rigorously academic Soviet and European education systems. Congressional legislators responded in September 1958 by passing the National Defence Education Act that 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 (Connell, 1980; Cremin, 1962). Unlike 1911, when Taylor envisaged skilled workers being the key to America's economic and industrial prosperity, by the late 1950s Congress put its full weight behind an education system that utilised the intellectual capital of American engineers, mathematicians, scientists, and technologists.

Tyler's Objective Model of Curriculum Development and the Rise of Behavioural Psychology

The immediate difficulty for politicians in general and educationists in particular was to devise 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 for constructing 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 have been achieved (Tyler, 1949).

The particular appeal of Tyler's model was that it viewed schooling as an orderly process designed to produce and promote desirable learning outcomes for *all* students, irrespective of their abilities and areas of interest (Brady & Kennedy, 1999). The single most important factor in curriculum planning, Tyler claimed, 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 for students and teachers, the nature of the curriculum to be delivered, and the purposes of education (Eisner, 1979, 1991; Kliebard, 1995).

The move to define educational outcomes with even greater precision gathered 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 of modifying students' learning experiences to ensure compliance with those outcomes. American educators and researchers became infatuated with the behavioural objectives movement to such an extent that hundreds of books appeared throughout the late 1950s, 1960s and early 1970s advocating its wholesale adoption in curriculum planning (Callahan, 1962; Stenhouse, 1973; Tyack, 1974). The hegemony of behaviourism proved so strong that remarkably little criticism emerged regarding its limitations until the mid-1970s (Apple, 1995a, 1996; Stenhouse, 1973, 1978).

Behavioural Objectives and Learning Outcomes

The general thrust of the behaviourist approach, outlined for the first time in Benjamin Bloom's seminal work, *Taxonomy of Educational Objectives* (1956), 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 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*, that 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 (usually through testing) of the desired behavioural outcome against each pre-determined 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.

Criticism of the quality of American education escalated during the 1960s to such an extent that the federal government launched various reform programmes to establish minimum competency tests for high school graduation (Ravitch, 1983; Tyack, 1974). These tests were designed to "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.

Teacher Accountability, Competence, and Performance-Based Assessment

Growing unease concerning educational standards, declining Scholastic Aptitude Test (SAT) scores, and poor quality teacher education led federal policy makers in the 1960s to seek ways to minimise, if not eliminate, teacher incompetence by 'teacher-proofing' classroom instruction (Conant, 1963; Eisner, 1991; Koerner, 1963; Ravitch, 1983, 2001). 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 (Ravitch, 1983; Shephard & Kreitzer, 1987; Winter, 1982). Perhaps not surprisingly, the research evidence revealed that the competency-based approach failed to live up to the claims and aspirations of its proponents because it was the *political context* surrounding the test,

rather than any 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 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 national economic productivity and competitiveness. Conservative politicians quickly grasped the importance of 'standards' and made this a central feature of their neo-liberal 'back to the basics' (eliminate the 'frills') curriculum. Finally, the education standards mantra was officially sanctioned in April 1983 when the Department of Education released its damning report on American education, aptly entitled *A Nation at Risk* in 1983 (National Commission on Excellence in Education).

This report investigated the standard of American education and concluded that it had in fact deteriorated, when measured by high school student performance in the USA and in comparison with other countries. Accordingly it recommended that high school graduation requirements be strengthened and that colleges and universities adopt more rigorous and measurable standards and expectations for students' academic performance. Four-year colleges and universities, in particular, were urged to raise their admissions requirements. *A Nation at Risk* also sought to embed the twin notions of competency and excellence as the new policy drivers of the 1980s by advocating a 'New Basics' academic curriculum (comprising English, 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.

In the wake of *A Nation at Risk* the impetus 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 be raised simply by political decree or by mandating more stringent assessment practices and tests (Madaus, 1988; Pascoe, 1995; Ravitch, 2000, 2001, 2010), President George W. 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 (Ravitch, 2000, 2001, 2010).

In 2002 the Bush government went further by sponsoring the No Child Left Behind (NCLB) Act, making each state legally responsible for developing content and performance standards, measuring improvement, implementing and administering annual state wide standardised tests in reading and mathematics (including testing students with limited English language proficiency), reporting this assessment data, and applying sanctions for not meeting performance goals (Ravitch, 2010; U.S Department of Education, 2002). Although the act did not set a national achievement standard—standards are set by each individual state—schools nevertheless are required to ensure that nearly all their students meet the minimum mandated skill levels (set by each state) in reading, writing, and mathematics (Ravitch, 2010). The results, albeit in a narrow range of subjects, are used to evaluate the worth of individual teachers and the success or failure of schools (Ravitch, 2010). Such is the faith in the capacity of standardised testing to lift educational achievement that President Obama's *Race to the Top* (2009) policy initiative allocated $4.35 billion of contestable funds to States that evaluated teachers using their students' scores on annual multiple-choice tests (Ravitch, 2010).

However, conservative educational practices such as these have significant consequences for educators in particular. As Apple (1995a, 1995b, 1996), Eisner (1979, 1991), and Ravitch (2010) have argued, America's current infatuation with standards and accountability (and the concomitant pursuit of higher and higher test scores) invariably dissuades teachers and learners from undertaking those creative, challenging, and risk-taking activities that free ourselves from the confines of certainty.

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 have been united in urging wide-ranging curriculum, assessment and teacher education reform to arrest the dramatic erosion of educational standards, allegedly caused by the two decades of laissez-faire excess and an outdated (1960s) egalitarian philosophy of teaching and learning (Aldrich & White, 1998; Ball, 1994; Kelly, 1990; Lowe, 2007).

Such intervention was further justified by the political rhetoric that education standards and national 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 (Black, 1994; Broadfoot, 2001, 2007; Cresswell, 2000; Goldstein & Lewis, 1996; Torrance, 1995, 1997). With little thought about 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 a 'core' of traditional academic subjects (English, mathematics, and science) and 'foundation' subjects (e.g., 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 met—together these occupied 70-80 per cent of curriculum time—there was some opportunity (albeit minimal) for social and

personal education, political education, environmental education, integrated studies, social studies, and peace studies. Clearly articulated programmes of study were also identified that prescribed what students should be taught, the 'key stage' attainment targets to be met (for ages 5-7, 7-11, 11-14, and 14-16), and provided examples of learning activities (McGee, 1999; Pring, 1989).

The introduction of the National Curriculum, along with national testing of all 7, 11, 14 and 16 year-olds in the three core subjects, 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 (Lowe, 2007). In the absence of alternatives, the Conservatives were able to seize the initiative and implement a curriculum that prioritised 'core' academic subjects over the ostensibly lower status aesthetic, practical, or social subjects—those familiar with 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 to constitute the legitimate secondary school curriculum.

The education reforms of 1988, however, involved more than the introduction of the National Curriculum per se. 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. Together, these were expected to provide the public with unequivocal evidence about the quality of teaching and learning in English primary and secondary schools.

'League Tables'

The Conservative's unswerving faith in outcomes-based education was revealed in 1991 when the Department of Education and Science (DES) launched the *Parents' Charter* that 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) to assist parents in choosing 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 the 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 (Torrance, 1997; 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)[1]. 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*, had a profound impact on both the content and process of schooling in England and Wales. Essentially, they radically 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) but 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 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.

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[1] In 1997 Torrance noted 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).

Outcomes-Based Education in Australia

National Curriculum Debates in the 1980s and 1990s

The introduction of the National Curriculum in England and Wales in 1988 prompted Australian education bureaucrats to debate the merits (or otherwise) of a national curriculum. As in America and the United Kingdom at the same time, curriculum reform in Australia was directly aligned with a broader economic, industrial, political and social agenda designed to improve efficiency and effectiveness. The key issue confronting Australian educators 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 the *Strengthening Australia's Schools* report that outlined and analysed the Commonwealth's aspirations for Australian education. The report began with the observation that educational policy in all western countries was premised upon "schools play[ing] a critical and central role in the nature of our society and economy" and that if increased economic performance was to be achieved, then "adjustment of the school curriculum" was required (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. As education constitutionally was a state rather than Commonwealth responsibility, Dawkins' national education strategy 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).

From 1988 to 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. Following the 1989 Hobart Declaration's publication of national education goals (DEET, 1992; Marsh, 1994) further collaborative work on national curriculum and assessment

frameworks was undertaken, managed by a curriculum and assessment subcommittee of the AEC and funded equally by the Commonwealth and the States and Territories. In April 1991 a draft Year 1-10 curriculum framework emerged, 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, Mathematics, Science, Technology, the Arts, Society and Environment, and Health and Personal Development (Ellerton & Clements, 1994; Marsh, 1994, 1995). A 'curriculum mapping' exercise subsequently was undertaken to determine the shared curriculum goals across the States and Territories with national statements for all KLAs finalised and released in June 1993 (Ellerton & Clements, 1994; Marsh, 1994, 1995).

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

Notwithstanding this setback, the lure of specially tagged Federal funding post-1993 meant that nationally developed curriculum statements and profiles for the eight KLAs continued to influence educational policy and practice in all Australian States and Territories (Ellerton & Clements, 1994; Marsh, 1995; Rowe & Hill, 1996; Watson, 1996). The inclusion 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, meant that the AEC's earlier work has not been in vain (Grundy & Bonser, 1997; Ingvarson & Marett, 1997; Marsh, 1994, 1995; Rowe & Hill, 1996; Watson, 1996).

Curriculum Contestation

Any criticisms 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 when he stated 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). These commentators, however, ignored the mounting research evidence that student outcome statements, indicators, profiles, and levels not only added considerably to teachers' workloads but also failed 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 we have seen 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 teachers and students 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 (since 1946) secondary school curricula. Furthermore, New Zealand had experimented with national primary school tests annually from 1878 to 1937 and finally abandoned them when it became clear they had done nothing to improve the quality of teaching and learning in the nation's classrooms (Lee & Lee, 1992, 2000, 2009; Openshaw, Lee, & Lee, 1993).

Towards market-driven education: the 1980s and beyond

Following Robert Muldoon's National government (1976-1984) defeat in the landslide general election of 1984, the newly-installed Labour (Lange-led) government (1984-1990) embarked upon unprecedented, 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). Labour promptly abandoned the egalitarian ideals of access and opportunity that had underpinned the Keynesian welfare state in New Zealand since 1935 and pursued a market-based model that espoused choice, efficiency, competition, and outcomes. Education reform became central to Labour's economic restructuring agenda and involved radical change in three key areas: educational administration (*Administering for Excellence*, 1988; *Tomorrow's Schools*, 1988), school curriculum (*Curriculum Review*, 1987), and senior secondary school qualifications and assessment (*Learning and Achieving*, 1985-1986). Despite Labour's defeat in the 1990 general election the political impetus for change was neither sidetracked nor slowed. State control, surveillance, and accountability in New Zealand education was now seen as being inevitable and thus unstoppable, given similar developments internationally.

The National Curriculum Framework (1991)

Borrowing heavily from the United Kingdom's 1988 National Curriculum model, the newly elected National government (1990-1999) Minister of Education, Lockwood Smith, announced his intention to overhaul the New Zealand curriculum, 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 that embraced a wholly outcomes-based approach to student learning and achievement were cemented in place.

Highlighting the interplay of economic, educational, and political factors in his Foreword to *The National Curriculum of New Zealand* (1991), the Minister of Education wrote that "essential knowledge, understanding and skills" (Ministry of Education, 1991, p. i) and statements of the explicit outcomes to be achieved (pp. 18-20) were essential to "achiev[ing] the standards which, as a small trading nation, [New Zealand] needs in order to prosper alongside other nations in the international marketplace" (p. i). Following a period of public consultation, the government released *The New Zealand Curriculum Framework* in 1993 that outlined a series of tightly specified learning outcomes ('achievement objectives') and described what Year 1 to 13 students "should know and be able to do" as they progressed through each of the eight curriculum levels (Ministry of Education, 1993, pp. 4-9, 22-23).

The political pressure to implement the new curriculum provided minimal opportunity to trial it in schools. Teachers soon complained 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 insufficient time was given to cover the wide range of topics in the curriculum statements (Lee & Hill, 1996). The National government ignored these concerns and instead pursued its non-negotiable, outcomes-based education reform agenda; an agenda that deliberately removed professional educators from the process of curriculum and assessment (Lauder, Hughes, & Watson, 1999; McKenzie, 1999; Marshall, 2000; Philips, 1993, 2000; Snook, 1997).

The National Qualifications Framework (1991)

Overlapping the New Zealand Curriculum Framework was the modular National Qualifications Framework (NQF), designed and administered by the New Zealand Qualifications Authority (NZQA), that allowed qualifications from both the academic and vocational sectors to be credited and registered on the framework (NZQA, 1990, 1991a, 1991b, 1991c, 1993). The essential 'building blocks' of the NQF were the competency-based 'unit standards' (comprising learning outcomes and performance criteria) by which students' learning was evaluated against clearly defined behavioural outcomes.

In marked contrast to the Scottish Vocational Educational Council's (SCOTVEC) modularised competency-based National Certificate launched in the 1980s, the New Zealand NQF abandoned 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; Wolf, 1995). 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 critics began to explore the theoretical underpinnings of the NQF and to expose serious weaknesses therein (outcomes (Codd, 1996, 1997; Elley, 1995; Irwin, 1994, Peddie & Tuck, 1995). What these critics also discovered was the Framework's wholly behaviourist orientation; an orientation that had originated from the social efficiency movement of the early twentieth century.

Outcomes-Based Education: A Critique

The trend towards the tighter specification of educational outcomes, accompanied by a renewed emphasis by the state and related education agencies on surveillance and accountability of teachers and students, has been a dominant feature of curriculum and assessment reforms in the USA throughout much of the twentieth century. Moreover, many American politicians (and some educationists) have long claimed that the key to maximising economic productivity and competitiveness lay in raising educational standards, thus satisfying taxpayers that publicly funded schools were in fact being measured and monitored in terms of their overall efficiency and effectiveness. What emerged in America, the United Kingdom, Australia and New Zealand from the mid-1980s were hegemonically-embedded outcomes-based curriculum and assessment frameworks in which pre-determined discrete learning outcomes were tightly prescribed and then arranged (and assessed) in terms of linear and sequential achievement levels. All of this was 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 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, 2004).

With the global hegemony of outcomes-based education so deeply embedded in America, the United Kingdom, Australia and New Zealand, it is timely to critically evaluate the advantages and disadvantages of restructuring curriculum and assessment systems along these lines.

Advantages

The advantages of outcomes-based education, its supporters argue, are numerous. In the first place, the clear specification of outcomes not only provides transparent goals for learners and teachers but also introduces much-needed rigour to the curriculum and assessment, thereby encouraging teachers to be clear about selecting relevant content, methods, resources and assessment for their students (Burke, 1995; Jessup, 1991; Marsh, 1992; Popham, 1987). Secondly, as Nash (1995) has observed, 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" (p. 162) provided, of course, that such material can be reduced to discrete pre-determined outcomes. Thirdly, because the outcomes-based education model emphasises outputs rather than inputs, it is not concerned with the *process* by which outcomes are to be achieved and therefore is 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, according to Jessup (1991), outcomes-based education is designed to promote more active and participative learning for it does not assume there is only one way, or a best way, to learn. The great strength of an outcomes-based model of education, Jessup concludes, is that "it recognises individual differences and individual preferences and opportunities. Above all it does not prescribe the form of learning" (p. 138).

Disadvantages

Notwithstanding its widespread adoption in many countries, the outcomes-based model of curriculum and assessment reform has consistently been censured by various teachers' associations and

education academics on the grounds of its theoretical weakness and problematic, if not chaotic, implementation (Broadfoot, 1996; Gipps & Murphy, 1994; Goldstein, 1997; Goldstein & Lewis, 1996; Hyland, 1994; Irwin, 1994, 1997; Murphy & Broadfoot, 1995; Wolf, 1995). Other complaints have also been made regarding this utilitarian approach to learning.

In the first place, research has shown that the highly prescriptive (and 'teacher-proof') nature of outcomes-based education inhibits teachers' and students' *autonomy* with teachers becoming deskilled and deprofessionalised (Aldrich & White, 1998; Apple, 1988, 1990, 1995a, 1995b, 1996; Hyland, 1994; Lawton, 1996; Thrupp, 2001a, 2001b). Secondly, critics complain that the model prioritises *performance* over 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*' (or knowing *why*) means that learning and teaching is governed by pre-determined, predictable, and highly specific curricula content and objectives (Hyland, 1994; Irwin, 1994, 1997; Marshall, 2000). 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 that is complete once their performance has been evaluated and certificated (Hodkinson, 1992; Irwin, 1994, 1997). 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). Finally, critics have argued that because the outcomes-based education movement is grounded upon behavioural psychology and corporate management principles, politicians and administrators have seized upon broader economic, labour market and social agendas to justify sweeping curriculum and assessment reforms (McTaggart, 1992).

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, 1990, 1995a, 1996). Drawing on the experience with outcomes-based curriculum and assessment in England and Wales in the 1990s, Edwards (1995) noted that while the National Curriculum was designed ostensibly to treat all children and schools alike, the SAT [Standards Assessment

Tasks] results reflected not only the quality of school and teachers performance but also the entry abilities of children, with no allowance made for the socio-economic and cultural status of the school's community. In the United States, Popham (2007) argues that the tests currently used as the "centrepiece of test-based accountability" are seriously flawed because they assess "what the students brought to the schools" rather than what the teachers taught their students (pp. 166-167).

That social justice and equity issues have been all but ignored should not be surprising given that the more a family invests in the future schooling success of their children, the greater the likelihood 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 (Broadfoot, 2001, 2007; Carnoy et al., 2003; Popham, 2007). Although the Department for Education and Employment (UK) finally conceded in 1995 that the annual publication of league table examination rankings of schools had produced "misleading" results (DfEE, 1995), the competitive 'drive for results' persisted.

Perhaps the most damning observation about an outcomes-based education model concerns the overwhelming absence of a theoretically rigorous 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; Collins, 1994a, 1994b, 1995; Gipps & Murphy, 1994; Goldstein & Lewis, 1996; Holt, 1994; Hyland, 1994; Lum, 1999; Murphy & Broadfoot, 1995; Towers, 1992, 1994; Wills & Kissane, 1997; Wolf, 1995). Elley (1995, 1996) 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. In particular, Elley questioned whether the "sequencing of knowledge and skills constitued a clear progression" because students' knowledge growth is "individual and idiosyncratic, consisting of an infinity of particulars, not of logically organised packages—mastered in all-or-nothing fashion" (1996, p. 12).

Arguably, the final word belongs to the Eltis Committee (1995) who carefully investigated the evolution of outcomes and profiles in New South Wales schools and sounded the following note of warning over the wholesale and uncritical 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. (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. In fact, it appears 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 (Marshall, 2000; Sahlberg, 2006, 2010, 2011). But what is even more remarkable is that while the failings of outcome-based education and assessment are widely acknowledged, its advocates thus far have 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 required (Evans, 1994; Holt, 1994; Lum, 1999; Spady, 1994; Spady & Marshall, 1991; Towers, 1992, 1994; Wills & Kissane, 1997). Today the language of educational outcomes, standards, and accountability remains as highly charged politically as it ever was in the past.

Conclusion: Some lessons, cautions, challenges, and opportunities

The particular danger of using outcomes-based education to pursue higher standards is that politicians and administrators fail to recognise that these outcomes quickly become reduced to measurable objectives that are *external* to the process of teaching and learning. Thus the very tools designed to measure the output of the education system (e.g., tests and examinations) invariably have an impact upon the system as a whole (Broadfoot, 2007; Jones et al., 2003; Nichols & Berliner, 2007; Sahlberg, 2006; 2010, 2011). Apple (1995a, 1995b, 1996) claims that the policy shift from contents-based syllabi to outcomes-based curriculum statements is invariably accompanied by the call for a national curriculum that, in turn, provides the framework within which national testing can function. The key question that Apple (1995b) then poses is whose reforms are these and who benefits? (p. 26)

Rethinking outcomes-based education in a 'knowledge society' and 'knowledge economy'

The current global preoccupation with the 'knowledge society' in general and 'knowledge economy' in particular is underpinned by the axiom that education reforms will deliver the hoped for growth in national economic prosperity and international competitiveness deemed essential for success in a modern capitalist world (Sahlberg, 2006, 2010, 2011). Moreover, the recent fascination with international benchmarking of education systems, coupled with the fact that school students in Finland, Hong Kong, Japan, Shanghai, and Singapore are at or near the top of the PISA league tables in reading, mathematics, and science, has persuaded many policymakers and politicians that these high performing nations have important features that other nations might like to imitate (Alexander, 2012; Sahlberg, 2010; Tucker, 2011).

Alexander (2012) addresses many of these points in his critical comparative analysis of culture, pedagogy, and international student achievement surveys and data. The problem, for Alexander, concerns the inappropriate transplantation ('policy borrowing') and reconfiguration of quick fix policies such as "international benchmarking" and "world class education standards" that ignore not only the transformative quality of student learning but also the

complex interplay between culture and schooling (pp. 4-5). Alexander also queries whether the current "PISA-led obsession does a grave injustice to countries, schools and teachers that care no less passionately about educational standards but for whom standards mean more than test performance—and ultimately therefore to the cause of education itself?" (p. 19). Alexander concludes that:

> The curriculum narrows to what is tested, the summative function of assessment is elevated over its formative contribution to children's understanding and progress, and the larger questions of purpose and value, which in democratic societies ought to be central to educational debate, are neglected. With PISA 2012 now in progress, is this not a good time to redress the balance? (p. 19)

Alexander's key point is that because a nation's education system is inextricably grounded in its culture, "no educational policy or practice can be properly understood except by reference to the web of inherited ideas and values, habits and customs, institutions and world views, that make one country distinct from another" (Alexander, 2001, p. 5).

Worlds apart? What we can learn from analysing other school systems

Thus far we have seen how competitive pressures for improved student achievement, educational efficiency, productivity, and quality have resulted in education systems being made increasingly accountable in terms of measurable outcomes (i.e., higher test and examination scores, and better placement in school league tables). These outcomes, it is widely believed, correlate positively with the economic and educational success of individual nations (Mourshed et al., 2010; OECD 2010a, 2010b, 2011) and therefore attract the attention of those policymakers keen to dispense miracle cures to 'under-performing' countries (Alexander, 2012; Sahlberg, 2006, 2010, 2011).

While this concern is understandable, Sahlberg (2006, 2010, 2011) and Tucker (2011) each warn that there is no single formula for success because each high performing education system is strikingly different in terms of its economic, historical, political, and social context. Raffe (2011) echoes these concerns when he urges educators to focus on 'policy learning' rather than 'policy borrowing'. Interestingly,

although the above-mentioned quintet perform highly in PISA tests in reading, mathematics, and science, one is left wondering how they might perform if the wider school curriculum also was assessed.

Nevertheless, Finland's outstanding performance in recent OECD surveys continues to fascinate educationists who also note the absence of external accountability structures, choice and competition policies, charter schools, and league tables of student (and school) performance on high-stakes national examinations and tests. Pasi Sahlberg, formerly a teacher and now an education analyst for the OECD and World Bank, carefully researched his country's education system and provides a rare and detailed insight into how (and why) it is now the best in the world (Sahlberg, 2006, 2007, 2010, 2011).

Sahlberg (2010) notes that Finland has relied on four key principles to improve student learning and achievement:

> (a) guaranteeing equal opportunities to good public education for all; (b) strengthening professionalism of and trust in teachers; (c) steering educational change by enriched information about the process and performance of teaching and schooling; and (d) facilitating network-based school improvement. (p. 56)

He also observes that because "test-based accountability is not part of education discourse in Finland" (Sahlberg, 2010, pp. 56-57)—although teachers are responsible for the overall assessment of students using a mixture of diagnostic, formative, performance, and summative assessments—teachers and schools enjoy considerable autonomy in being able to design pedagogical methods to meet the needs of all students. Sahlberg (2010) concludes by echoing Bernstein's (1970) dictum that "Education cannot compensate for society" (p. 344) and warning that:

> Reform ideas and policy principles that have been employed in Finland since the 1970s will not necessarily work in other cultural or social contexts. For example, Finland, like other Nordic countries, has higher mutual trust in other people and their educational systems that elsewhere…. Similarly there are other socio-cultural factors … such as social capital, ethnic homogeneity and high professional status of teachers that may have a key role when transferability of education policies is considered. Finnish

> experience suggests, after all, that it is possible to create an equity-based, high-performing educational system for the knowledge society relying on responsibility and trust instead of test based accountability policies…. One must not assume that schools alone should be responsible for student learning and their well-being. (p. 57)

In light of the wide (and widening) gaps in educational achievement, health and wellbeing, and income in many western countries it is timely to acknowledge explanations that lie outside the education system's sphere of influence. For example, Wilkinson and Pickett's (2010) comprehensive epidemiological research, published in their book *The Spirit Level*, provides unequivocal evidence of the statistical interrelationship between unequal societies, unequal education systems, and unequal education outcomes. The key to greater equality and improving the wellbeing of the whole population, Wilkinson and Pickett argue, lies in addressing "the underlying inequality which creates a steeper social gradient in educational achievement" (pp. 29-30).

Final thoughts and reflections

The blunt reality, so often forgotten in the race to introduce new models of curriculum, assessment, and education is that any reforms must acknowledge the multitudinous and remarkably complex ways whereby human beings develop over time. This involves the very essence of the educational process—learning, knowledge, fairness, opportunity, and personal growth.

This is no easy call for those who continually seek instant (and simplistic) solutions to complex educational problems and/or wish to slavishly and uncritically copy other education systems. There are no universal, permanent or perfect solutions. However, if educationists and politicians are prepared to confront these issues and to engage in open and constructive dialogue, then there is at least some chance of significantly improving the educational experiences and achievements of students while also raising the all-important morale of the teaching profession. It is these issues that we urgently need to explore in the twenty-first century.

Finally, it is vitally important not only to resist the temptation to pursue certainty in our pedagogical methods and educational outcomes but also to reject accounts of educational progress and performance that are limited solely to what can be measured. Accordingly, we must never lose sight of the reality that the intellectual voyage can be just as valuable, stimulating and worthwhile as the final destination and, furthermore, that an essential part of this journey should involve the use of robust research evidence to embed quality curricular and assessment policy decisions in our nation's education system. Teachers, of course, are central to this process because not to include them would risk alienating the very people we entrust with the formal education of our nation's youth. Teachers, students, and the public should expect no less.

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