THE NEW ZEALAND CURRICULUM

A SUBMISSION ON THE DRAFT FOR CONSULTATION 2006

Kevin Donnelly

Education Forum

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LIST OF ACRONYMS

ACER	Australian Council for Educational Research
APEC	Asia–Pacific Economic Cooperation
AFT	American Federation of Teachers
ERO	Education Review Office
OBE	Outcomes-based education
OECD	Organisation for Economic Cooperation and Development
PISA	Programme for International Student Assessment
SBCD	School-based curriculum development
TIMSS	Trends in International Mathematics and Science Study
VELS	Victorian Essential Learning Standards

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- been appointed to the federally funded steering committee evaluating state and territory year 12 subjects (2006)
- been a member of the federally funded enquiry into the Australian Certificate of Education (2005)
- completed a federally funded benchmarking project analysing state and territory primary intended curriculum in mathematics, science and English against overseas systems (2005)
- acted as a consultant (1997–2003) to the federally funded *Discovering Democracy* Civics and Citizenship Programme and member of the Victorian Board of Studies (1997)
- been appointed as a consultant to the federally funded boys' education programme (2003)
- completed a comparative analysis of the New Zealand National Certificate of Educational Achievement for the New Zealand Education Forum (2000) and benchmarked the New Zealand school curriculum (2002)
- completed an analysis of mathematics, science and English curriculum across a range of school systems, both national and international, to inform the benchmarking exercise undertaken by the Victorian Department of Education (1998–1999)
- acted as executive officer (1998–1999) to the internet-based 'Achievers Against the Odds' Project (a joint project between the Rotary Districts of Victoria and the Department of Education) and director (1998–2003) of the 'I've Got the Power' anti-smoking youth programme funded by the American-based international tobacco company, Philip Morris and
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During his 18 years as a secondary teacher in both government and non-government schools, Dr Donnelly taught English and Humanities and was a subject coordinator. He has also lectured and tutored part-time in education at La Trobe University,

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EXECUTIVE SUMMARY

This report is written in response to a call for submissions on *The New Zealand Curriculum Draft for Consultation 2006.* While the main focus is on evaluating the draft curriculum, the following papers and reports have also been examined:

- *A Summary of Feedback From The First Meeting of the Curriculum Stocktake Reference Group* (Ministry of Education 2001a)
- *The Effects of Curricula and Assessment on Pedagogical Approaches and on Educational Outcomes* (Ministry of Education 2005)
- *Report on the New Zealand National Curriculum, 2002 – Australian Council for Educational Research* (Ferguson 2002)
- *New Zealand Stocktake: an international critique* (Le Métais 2002)
- *The New Zealand Curriculum: An ERO Perspective* (Education Review Office 2001)
- *Curriculum Project Discussion Paper: Key Competencies* (New Zealand Curriculum Project Undated)
- *Curriculum Stocktake Report to Minister of Education, September 2002* (Ministry of Education 2002).

In October 2002 the Education Forum published a paper written by the author entitled *A Review of New Zealand's School Curriculum: An International Perspective* (Donnelly 2002). The paper placed the New Zealand approach to developing curriculum within an international perspective and concluded that New Zealand had adopted an outcomes-based approach that was outdated. In particular, the paper argued that New Zealand's curriculum framework and national curriculum statements:

- adopt a flawed and sub-standard outcomes-based approach to curriculum that, while being prevalent during the late 1980s and early 1990s, has since been largely abandoned by equivalent education systems such as those in Australia and the United States;
- fail to recognise properly the strength and superiority of either a 'syllabus' or 'standards' approach to curriculum development utilised by successful education systems such as Singapore, the Netherlands, the Czech Republic and South Korea;
- uncritically adopt a process-based approach to curriculum that fails to recognise properly the central importance of educational content;
- unduly emphasise a student-centred view of learning to the detriment of what the American academic Jerome Bruner terms the 'structure of the discipline'; and

- exist in isolation without any substantial attempt, at the time of writing this report, either to validate or strengthen them by undertaking an international comparative analysis similar to that undertaken by the Ministry of Education in Victoria, Australia, when developing its second edition of the Curriculum and Standards Framework (Donnelly 2002, p viii).

In relation to the last point, the Ministry of Education has commissioned two reports (Le Métais 2002 and Ferguson 2002) placing the New Zealand approach to curriculum development in an international perspective. Neither of these, it should be noted, employed the same type of methodology used in the research carried out by the Ministry of Education in Victoria, Australia, when developing the second edition of its Curriculum and Standards Framework. The Victorian approach ranked the achievement objectives taken from various curriculum documents in terms of academic rigour, being unambiguous, detailed and measurable.

In relation to the other four bullet points above, this review concludes that, despite the concerns about the conceptual underpinning and implementation difficulties of New Zealand's approach to the curriculum raised over the last four years, very little, if anything, has changed. Apart from reducing the number of pages, strands and achievement objectives, and introducing an eighth learning area, Learning Languages, *The New Zealand Curriculum Draft for Consultation 2006* adopts the same outcomes-based education model of curriculum development. That the New Zealand authorities have continued to adhere to such a model, in the face of increasing international evidence that it is intellectually flawed and obsolete, is difficult to understand.

Those responsible for the current review of New Zealand's proposed curriculum appear to be acting on the basis that any evaluation of the curriculum from first principles should be disallowed. This is also cause for concern. Taking for granted what should be open to critique places future generations of New Zealand students at risk.

1
INTRODUCTION

Since the mid-1980s, New Zealand has experienced an intensive period of curriculum renewal and development. This is evidenced by the publication of *The New Zealand Curriculum Framework* (1993), the gradual development of related curriculum statements in a number of key learning areas during the 1990s, the publication of the *Curriculum Stocktake Report to Minister of Education, September 2002* and *The New Zealand Curriculum Draft for Consultation 2006*. New Zealand is not alone in reviewing its school curriculum. Many of those countries associated with the Organisation for Economic Cooperation and Development (OECD) and the Asia–Pacific Economic Cooperation (APEC) group have also embarked, since the early 1990s, on a process of curriculum development in an attempt to strengthen learning outcomes and to make their education systems more internationally competitive.

Within Australia, all states and territories have begun a second wave of curriculum renewal[1] and, at the Commonwealth level, reports have evaluated the feasibility of introducing an Australian Certificate of Education[2] and benchmarked primary school curricula in mathematics, science and English within an international context.[3] In the United States, what is termed a standards approach to curriculum[4] has become widespread, and initiatives like *No Child Left Behind* have been instrumental in focusing attention on what research suggests about effective classroom practice. The UK Tomlinson report into the English A-Levels (Tomlinson 2002) has signalled the desirability of restructuring the senior years of schooling, and both Singapore and South Korea have rewritten their curricula to make classroom teaching more flexible and creative.

In New Zealand, the most recent stage of curriculum development, arising out of the 2002 stocktake report (Ministry of Education 2002), is the publication of *The New Zealand Curriculum Draft for Consultation 2006* and a call for feedback. This paper provides such feedback and makes a number of comments and recommendations, in the light of available research and international 'best practice', directed at strengthening New Zealand's approach to curriculum development and ensuring that classroom teachers are better equipped to carry on with their work.

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1 The first wave of curriculum development in Australia arose out the national statements and profiles developed during the early 1990s. The second wave represents a more recent attempt to update and revise intended curriculum documents. Examples include the Victorian Essential Learning Standards, the Tasmanian Essential Learnings and the New South Wales Mandatory Outcomes in the K-6 Curriculum.

2 See Australian Council for Education Research (2006) *Australian Certificate of Education: Exploring a way forward.*

3 See Donnelly (2005) *Benchmarking Australian Primary School Curricula.*

4 Such were the flaws in the outcomes-based education model of curriculum that the term is rarely used in the United States, where the focus is now on what is termed a standards approach.

A number of initial comments need to be made. As acknowledged by the following quotations, one of the defining characteristics of New Zealand's approach to developing curricula documents is its adoption of an outcomes-based education (OBE) model of curriculum development.[5]

> With the publication of *The New Zealand Curriculum Framework* and *Te Anga Marautanga o Aotearoa* in 1993, curriculum policy shifted from a focus on content to a policy based on outcomes. Since that time, curriculum statements and nga tauaki maratanga mo te motu have progressively replaced syllabi.
>
> . . . curriculum policy shifted from a focus on content, experiences and activities to curriculum policy based on outcomes. This was, in part, due to pressure on government to account for investment in education by demonstrating what students achieved during schooling (Ministry of Education 2002, pp 1–2).

Additional evidence that New Zealand favours an OBE approach to the curriculum can be found in the following statement taken from a document entitled *New Zealand Curriculum Stocktake (2000–2002)* (Ministry of Education 2001b, para 11):

> A fundamental principle underpinning the New Zealand curriculum is the premise that the individual student is at the centre of all teaching and learning. The curriculum recognises, as has been shown by extensive research both here and overseas, that teaching and learning are likely to be more effective if they engage with the prior views and knowledge of the learner.

Based on the above quotations and research associated with placing the New Zealand curriculum within an international perspective (see Donnelly 2002, Le Métais 2002 and Ferguson 2002), it is possible to characterise New Zealand's approach to the curriculum as follows. The curriculum embodies:

- a student-centred approach to education
- a constructivist view of pedagogy
- a developmental approach to learning
- an inquiry-based approach
- an emphasis on process to the detriment of detailing essential content.

As argued by Ken Eltis (Eltis 1995) and Gita Steiner-Khamsi (2006) during the time of New Zealand's adoption of OBE, only a handful of countries[6] had selected such an approach and there appeared little, if any, evidence that such a model had been

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[5] A report written by the Education Review Office (see Education Review Office 2000, p 11) also suggests that New Zealand has adopted an OBE approach when it states: "The curriculum statements (of New Zealand) contain achievement objectives and some suggested learning experiences but do not list the content to be covered".

[6] Steiner-Khamsi (2006, p 6) lists those countries as: "New Zealand, Australia, England and Wales, Canada and the United States". South Africa should also be added to the list.

successfully implemented elsewhere.[7] The New Zealand academic, Howard Lee (2003, p 93), makes a similar point about the lack of research evidence supporting the benefits of OBE when he states:

> Perhaps the most damning observation about an outcomes-based education model concerns the overwhelming absence of a theoretically rigorous (and arguably psychometric) research base regarding the benefits to students and teachers of arranging the curriculum in terms of sequential outcome statements.

Such are the flaws and weaknesses in OBE that the term is rarely, if ever, used in the United States where the curriculum debate now centres on developing a standards approach to the curriculum. In opposition to OBE, a standards curriculum is year–level specific, concise and teacher friendly, measurable and based on the academic disciplines. Since the development of the OBE-inspired Australian national curriculum statements and profiles, and the development of various state and territory documents, doubts have been raised about whether OBE curricula can be successfully implemented. Some states, such as Victoria and New South Wales, are now developing curricula documents based on a model similar to the US standards approach. While systems such as the Northern Territory and the Australian Capital Territory persist with an OBE model (described as Essential Learnings), other states, such as Tasmania, have dropped Essential Learnings in favour of a more traditional subject-based model. The situation in Australia is such that Bruce Wilson, the previous chief executive officer of the Curriculum Corporation and a strong supporter of OBE, now argues that OBE represents a flawed intellectual and political exercise. He states:

> Secondly, let's get beyond outcomes fetishism. The present form of outcomes has probably outlived its usefulness. Indeed it is difficult to find a jurisdiction outside Australasia which has persevered with the peculiar approach to outcomes which we have adopted (Wilson 2002).

It should also be noted that those education systems that outperform New Zealand in the international tests associated with the Trends in International Mathematics and Science Study (TIMSS) have ignored OBE in favour of a syllabus approach to the curriculum.[8] Countries such as South Korea, Japan, Singapore, Hong Kong, the Netherlands and the Czech Republic have an intended curriculum that is:

- related to specific year levels
- based on academic subjects
- includes more formal classroom interaction and time on task

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[7] After searching the United States-based Educational Resources Information Centre for evidence that OBE has been successful, Eltis (1995, p 16) concludes: "It would seem that very few research investigations have studied the implementation and effects of using OBE models".

[8] Advocates of OBE argue that a syllabus approach fails to address the question of outcomes. Such is not the case. An examination of syllabus documents shows, in addition to detailing what is to be taught, that the majority also detail learning outcomes.

- includes greater use of testing, streaming in terms of ability and interest and summative assessment
- employs curriculum descriptors (achievement objectives) that are unambiguous, succinct, measurable, teacher friendly and subject-based.

Given the debates surrounding OBE, the fact that there is little research evidence proving its effectiveness and that stronger-performing systems eschew it in favour of a syllabus approach, it might be expected that the call for submissions in response to *The New Zealand Curriculum Draft for Consultation 2006* would include an evaluation of the curriculum's underlying philosophy and the educational assumptions on which it is based. Unfortunately, it appears that such is not the case.

In the same way that the previous statement on the curriculum stocktake[9] suggested that any review would be restricted to "a time of consolidation and reflection" and that "the object therefore is not to rush into revision of the curriculum", the present curriculum review and call for responses appears to be based on the premise that any evaluation of the New Zealand curriculum "from first principles"[10] is to be excluded. Placing such a restriction not only forces respondents to take for granted what should be questioned but there is also a danger that if inherent flaws in an OBE model are ignored, the opportunity to rectify such weaknesses will be lost. This unwillingness to allow a more in-depth and sustained analysis of the New Zealand curriculum is also unacceptable given the view reached by the participants of the Curriculum Stocktake Reference Group about the need for a more "explicit statement of the epistemology and philosophy explaining the structure and approach to the national curriculum content" (Ministry of Education 2001a, p 8).

The failure to address first principles is made worse by the intention to mandate the revised New Zealand curriculum document by gazetting it as government policy. Whereas schools currently have a degree of freedom in relation to the curriculum, given that the *New Zealand Curriculum Framework* has not been gazetted, such freedom will disappear once the new guidelines become government policy.

This paper makes a number of observations and comments about *The New Zealand Curriculum Draft for Consultation 2006*, then evaluates the draft curriculum from first principles and concludes by exploring the idea of 'world's-best' curriculum and makes a number of recommendations about a way forward.

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9 'What is the Curriculum Stocktake Project?', previously available at the Ministry of Education 'Curriculum Stocktake' webpage, <http://www.tki.org.nz/r/stocktake/ index_e.php> 2002.

10 See Ministry of Education 2002, page 2.

2
THE NEW ZEALAND CURRICULUM DRAFT FOR CONSULTATION 2006: COMMENTS

The first meeting of the Curriculum Stocktake Reference Group suggested that, as a result of having so many achievement objectives, New Zealand's curriculum was overcrowded, sacrificed depth for breadth and contributed to teacher stress and workload (Ministry of Education 2001a, p 8). The Education Forum paper *A Review of New Zealand's School Curriculum: An International Perspective* (Donnelly 2002) also criticised the New Zealand approach to detailing achievement objectives when it argued that an OBE approach led to descriptors that were "broad, generic and difficult to define or measure" (p 14). Although it has taken those responsible for developing the New Zealand curriculum over four years to respond to such criticisms, it is good to see, at least in terms of the number of pages involved, that there is a willingness to change. Whereas the previous curriculum framework and related statements in the various key learning areas amounted to some hundreds of pages, the revised curriculum draft for consultation and the associated sets of achievement objectives amount to approximately 70 pages. By reducing the number of achievement objectives and the number of strands (in English, for example, the number of strands is reduced from three to two) there appears to be a recognition that the original approach led to problems of teacher workload and stress. Combining what was the framework and the various curriculum statements into the one document and reducing the number of achievement objectives should be commended.

Educational jargon

Within Australia, over the last 12 months, there has been a debate about the use of educational jargon, what some describe as edu-babble, in curriculum documents. On reading the draft New Zealand curriculum, it is obvious that the problem is not restricted to one side of the Tasman. The purpose of education is couched in such clichés as promoting "life-long learning" and allowing students to reach "their individual potential" by being "empowered to learn". In the document's foreword we are told that we live in a "constantly changing world" and achievement objectives must be "future-focused". As noted by the English poet, TS Eliot (1965, p 119), equally as important as change is continuity. He advocates the need:

> . . . to maintain the continuity of our culture – and neither continuity, nor a respect for the past, implies standing still. More than ever, we look to education today to preserve us from the error of pure contemporaneity. We look to institutions of education to maintain a knowledge and understanding of the past.

The kind of technological change represented by the internet, iPods and SMS messaging cannot be denied. Equally as important, though, is the realisation that human nature

has remained constant over hundreds of years and that the types of emotional and psychological dilemmas found in plays such as *Medea* and *Oedipus* are just as evident now as they were when such plays first appeared. It is also true, no matter how many years have passed since Pythagoras' Theorem or the theorems related to Euclidean geometry were first set down, that they are still as relevant now as when first discovered. Also evident from debates in Australia about the need to emphasise history as a distinct subject, instead of being incorporated into studies of society and the environment (in New Zealand, what is known as social sciences), is the need to acknowledge the importance of the past in helping to understand and shape the future.

Principles

The *New Zealand Curriculum Framework* lists nine principles that are described as giving direction to the proposed curriculum. The curriculum draft for consultation reduces this to six. On first reading, the 'Principles' listed on page 9 appear worthy and uncontroversial. In line with many of the OBE-inspired Australian state and territory curriculum documents, learning is about promoting excellence, learning how to learn, valuing cultural heritage and developing equity, connections and coherence. While few would disagree with such statements – who, after all, would deny students the right to "achieve to the best of their abilities" or argue against a curriculum that provides "a range of coherent transitions and pathways to further learning"? – there is a danger that some of the principles are contradictory and, thus, flawed. The statement that: "All students' identities, cultures, languages, and talents are recognised and affirmed" fails to consider that the cultural practices of some students might be unacceptable, or instrumental in holding others back in terms of their education. While it is generally accepted that education, in relation to students, makes "connections with their lives and engages the support of their families and communities", it is equally important that education challenges and questions the world of the student and their community. Under the heading 'Learning to learn', the statement is made that the curriculum should enable *all* students to "become active, confident, creative, and innovative learners and thinkers". To be realistic, not only is it the case that there will always be some students who are unable or unwilling to demonstrate such attributes, it is also of concern that the attributes listed are somewhat new-age and politically correct. In opposition to being "confident, creative and innovative", it can be argued that education requires students to be disciplined, attentive, respectful and mindful of what they do not know or understand.

Values

The concern about some of the 'Principles' also applies to the 'Values' listed on page 10 of the draft curriculum document. Once again, values such as excellence, defined as "aiming high and by persevering in the face of difficulties", valuing and respecting the "common good" and "being honest, responsible, and accountable and acting ethically" appear balanced and worthwhile. On closer examination, a number of unresolved tensions arise. Taken to its conclusion, an uncritical acceptance of the type of diversity found in different cultures, languages and heritages can work against the common good.

If valuing diversity, fairness and social justice leads to cultural relativism, a situation where all cultures are considered of equal value and worth, it becomes impossible to argue that some cultural practices are unacceptable or that others should be preferred. In addition, the admonition that students need to develop the ability to "critically analyse values and actions based on them" and to "discuss disagreements that arise from differences in values and negotiate solutions" fails to make clear the ethical and moral basis on which such actions would be evaluated and judged. The suggestion that students learn about "the values on which New Zealand's cultural and institutional traditions are based" appears to provide an answer; if students can identify such values it would then be reasonable to suggest that they be pre-eminent and be used to judge the worth of different, often conflicting, cultural values and beliefs. A closer reading of the treatment of values in the curriculum draft suggests otherwise. Not only does the document fail to make explicit the values associated with New Zealand's cultural and institutional traditions, but students "own values and those of others" and the "values of other peoples and cultures" are given equal prominence when detailing what students are to learn.

Key competencies

The next section of the curriculum draft deals with 'Key competencies', defined as: "the capabilities people need in order to live, learn, work, and contribute as active members of their communities". Whereas the *New Zealand Curriculum Framework* has a section outlining 'The essential skills', involving eight groupings ranging from communication skills to problem-solving to self-management and competitive skills incorporating 57 indicators, the curriculum draft for consultation lists five 'Key competencies' as:

- managing self
- relating to others
- participating and contributing
- thinking
- using language, symbols and texts.

The first question to ask is: why these particular five key competencies, and not others? Australia's Mayer competencies (cited in Scottish Qualifications Authority 2003, p 6), developed during the early 1990s, are listed as:

- collecting, analysing, and organising ideas and information
- expressing ideas and information
- planning and organising activities
- working with others and in teams
- using mathematical ideas and techniques
- solving problems
- using technology.

The Australian Chamber of Commerce and Business Council of Australia (cited in The Allen Consulting Group 2006, p 14) list the following work-related competencies as important:

- communication
- team work
- problem solving
- initiative and enterprise
- planning and organising
- self-management
- learning skills
- technology skills.

The Tasmanian Essential Learnings Curriculum (Department of Education, Tasmania 2003, p 2), in opposition to defining the curriculum in terms of subjects, puts forward the following competencies:

- thinking
- communicating
- personal futures
- social responsibility
- world futures.

Clearly there is a range of ways of defining key competencies and the choice requires justification. The *Curriculum Project Discussion Paper: Key Competencies* (New Zealand Curriculum Project, undated) suggests the justification can be found in the curriculum stocktake report and an OECD project entitled 'Defining and Selecting Key Competencies'. Instead of asking those responding to *The New Zealand Curriculum Draft for Consultation 2006* to seek out and read the stocktake report and the OECD material, it might be better to justify the inclusion of the five key competencies in the primary document. On reading the stocktake report, apart from a number of citations to related research supporting the idea of key competencies, there is no robust or convincing rationale justifying the competencies selected.

While the curriculum stocktake report (2002, p 9) acknowledges the argument that generic skills and competencies should be embedded in "domain specific knowledge and not (taught) in isolation", the curriculum draft – apart from making the statement that "the learning areas provide a structure and suggest contexts in which these competencies can be developed" (p 7) – fails to detail the relationship between the five key competencies and the learning areas. Given the concerns noted in the stocktake report about the difficulties of implementing the essential skills listed in the previous framework document, it appears strange that more thought has not been given to

ensuring that the competencies do not meet the same fate as the essential skills. In the section of the curriculum draft headed 'Planning for the development of the key competencies' there is an attempt to give teachers greater direction, with the suggestion that the competencies be embedded in the learning areas and that teachers should be able to monitor and evaluate the competencies at the same time that they assist students to achieve the various achievement objectives. The comment is made:

> The learning areas provide unlimited contexts for such experiences. Whatever tasks the students are engaged in, teachers can observe their progress in developing the key competencies at the same time as they observe progress on other aspects of their learning (Ministry of Education 2006, p 29).

Considering the concerns expressed about the arduous and time-consuming nature of having to deal with what are termed 'the essential skills' in the previous curriculum framework, one has to wonder on what grounds those responsible for imposing the key competencies believe the impact on classroom teachers will be any different.

There is also the concern that the way the competencies are detailed displays an unrealistic view of what students are capable of achieving and exhibits some of the excesses of a faddish and new-age approach to education. To expect students to know "who they are, where they come from, and where they fit in", in a time of social dislocation and the increasing power of youth-oriented commercial advertising and entertainment, is a lot to ask. At a time when many students grapple with mastering basic skills, the admonition that students develop "creative, critical, metacognitive and reflective processes" places unrealistic demands on teachers. While it is good to develop in students the ability to think independently and sometimes to challenge what they are taught, the statement that students should be capable of "constructing knowledge" and become "active seekers, users and creators of knowledge" suggests an intellectual prowess not expected even of those at the undergraduate level.

Increasingly, schools and teachers are being asked to fulfil an ever-increasing range of roles and responsibilities. On reading the key competencies, it appears that teachers, and the school curriculum, are expected to assume in large part the role of parents, the local community and wider cultural and social influences in attempting to fashion students emotionally, socially, culturally and intellectually. Not only does such an expectation place unrealistic demands on teachers, many of whom are more interested in teaching what they are qualified to teach than acting as social workers, but, in attempting to achieve so much, there is also a danger that essential learning is lost.

Learning areas

The *New Zealand Curriculum Framework* (Ministry of Education 1993) document lists seven learning areas: (1) Language and Languages, (2) Mathematics, (3) Science, (4) Technology, (5) Social Sciences, (6) The Arts and (7) Health and Physical Well-being. *The New Zealand Curriculum Draft for Consultation 2006* increases the number of learning areas to eight by adding what is described as 'Learning languages' (Ministry of Education 2006, p 13). The New Zealand curriculum designers, by dividing learning

outcomes (achievement objectives) into the eight learning areas listed above, are in line with the way curriculum is dealt with in Australia. Since the national statements and profiles were developed during the early 1990s, it has become common for state and territory curriculum documents to be framed in this way. A couple of exceptions within the Australian context are Tasmania[11] and the Australian Capital Territory, where subjects like English, mathematics and science disappear in favour of so-called essential learnings (like social responsibility, world futures and thinking) which are used to categorise the intended curriculum.

As outlined in a number of benchmarking reports undertaken by the author (see Donnelly, 1999, 2002, 2005), it is possible to identify three distinct approaches to developing curriculum documents: a syllabus, an OBE and a standards approach. In relation to developing curriculum documents, the question of which model is adopted has a significant impact on the curriculum more broadly. For example:

- whereas a syllabus and a standards approach target learning to specific year levels, an OBE approach specifies learning outcomes across a range of year levels (the New Zealand curriculum draft details achievement objectives that range across 6 to 7 year levels)
- whereas a syllabus and a standards approach recognise the central importance of the content associated with the established disciplines, an OBE approach emphasises the process of learning to the detriment of identifying worthwhile content
- whereas a syllabus and a standards approach recognise the importance of teacher-directed lessons, an outcomes approach defines the teacher as a 'facilitator' and places greater emphasis on group work and individualised learning
- whereas an outcomes approach minimises the place of norm-referenced, summative assessment, both a standards and a syllabus approach adopt testing and involve consequences for failure
- whereas a syllabus approach defines essential knowledge, understanding and skills associated with particular subjects at the beginning of the year or term, giving teachers a clear map of what is to be taught, an OBE and a standards approach detail what students should know or be able to do by the end of the year or term
- whereas the OBE-related learning outcomes are generally vague, wordy and difficult to measure, curriculum descriptors associated with a standards approach are concise, unambiguous and measurable.

While the three categories are not mutually exclusive – there are some curriculum documents, such as the Victorian Essential Learning Standards (VELS) and the NSW syllabus model, that contain elements of two or three, as noted above – there are

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[11] In relation to Tasmania, such was the public disquiet and hostility towards the Essential Learnings approach that Minister Wreidt was replaced as education minister and the new minister, David Bartlett, has replaced Essential Learnings with a more traditional approach represented by what is described as the Tasmanian Curriculum.

significant differences. Such differences are crucial in explaining the effectiveness of the various approaches both in terms of assisting teachers in their work and in strengthening learning outcomes. For example, amongst state and territory curriculum authorities in Australia there is agreement that listing too many outcome statements and failing to make them clear and succinct unnecessarily increases teacher workload and stress.[12] As previously noted, the first meeting of the Curriculum Stocktake Reference Group made a similar point when it criticised the New Zealand curriculum for having so many achievement objectives, being overcrowded, promoting breadth instead of depth, and unnecessarily contributing to teacher workload. The report *The New Zealand Curriculum: An ERO Perspective* (Education Review Office 2001, p 2) makes a similar criticism, in summarising a number of discussions with its review officers, when it concludes:

> Achievement objectives are often too broadly stated to indicate what can reasonably be expected of students. Most curriculum statements lack clarity about how the Achievement objectives are differentiated between levels, and are vague in terms of the content of the levels.

On reading the achievement objectives listed in the draft curriculum document, it appears that the same criticisms can be levelled.

Effective pedagogy

When considering the curriculum it is important to distinguish between:

- the intended curriculum – the syllabuses or framework documents outlining what is to be taught and what students are expected to master in terms of learning outcomes
- the implemented – what actually occurs in the classroom
- the attained – what students have mastered and understood.

While the above three points are inter-related, the following comments focus on the implemented curriculum, that is, what happens in the classroom and the impact of different pedagogical approaches and styles on teaching.

Despite the conclusion reached in a literature review of the effects of curricula and assessment on pedagogical approaches and educational outcomes (Ministry of Education, 2005) that: "Little research evidence was found for the effectiveness of different curricula structures, despite widespread reforms" (p 2) and that a "common comment in the major reviews of sections of the literature relevant to this research is that overviews cannot reach clear conclusions on the basis of the existing research data" (p 8), the writers of the curriculum draft are happy to make the claim that current research describes effective pedagogy (Ministry of Education 2006, p 24) as follows:

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[12] See Eltis (2003, p 81), Department of Education Services (2001, p 1), Department of Education, Training and the Arts, Queensland (2005, p 2) and Victorian Curriculum and Assessment Authority (2004, p 12).

Current research shows that students learn best when teachers:

- encourage reflective thought and action;
- make connections;
- provide multiple opportunities to learn;
- facilitate shared learning;
- enhance the relevance of new learning;
- create a supportive learning environment.

As might be expected, because of the influence of OBE on New Zealand's curriculum, such a view of effective classroom practice has much in common with what the US academic JE Stone terms developmentalism[13] – often described as child-centred learning, process or inquiry-based learning, constructivist learning or real-life and life-long learning. Stone traces the origins of developmentalism to the works of Rousseau, with more recent advocates including John Dewey and Jean Piaget, and suggests that the concept has had a profound impact on teachers and classrooms. He states (Stone 1996, p 12):

> In the end, teachers are burdened with an unattainable expectation. They, their employers, and the public are encouraged to believe that if a teacher is sufficiently creative and ingenious in harnessing each individual student's potentialities, expected learning outcomes will emerge in a way that the student will experience as spontaneous, natural, and comfortable. It is an ideal founded wholly on developmentalist supposition but it has come to define good teaching.

While it is good that the writers of the curriculum draft acknowledge the benefit of more formal approaches to teaching (in the introduction to the section entitled Effective Pedagogy the statement is made that English teachers "must combine the teaching of content with the explicit teaching of English vocabulary, word forms, sentence and text structures . . ."), one is left with the impression that the pedagogical approach being advocated is very much new-age and progressive. One of the tenets of OBE is the desire to relate learning to the world of the student. Thus, the curriculum draft states that: "Students should be able to integrate new learning with what they already understand" and that students "need to understand what they are learning, why they are learning it and how they will be able to use their new learning" (Ministry of Education 2006, pp 24–25). What is ignored is that the benefits of some learning might not be immediately understood or valued by students and that there is much in education that is not practical or utilitarian.

A second characteristic of OBE, in particular what the US academic William Spady describes as transformational OBE,[14] is an over-emphasis on learning being collaborative and related to the world outside the classroom. The curriculum draft states that:

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[13] Stone (1996, p 3) defines developmentalism as: "a form of romantic naturalism that inspires teacher discomfort with any practice that is deemed incompatible with natural developmental processes".

[14] Spady (1993, p 10) describes transformational OBE as future-oriented and central in helping students to develop "life-long adaptive capacities" and the "ability to do complex tasks in real settings, in real situations, relating more directly to life".

"Students learn as they engage in shared activities and conversations with other people, including family members and people in the wider community" and that: "All students need to be able to accept one another, form positive relationships with both students and teachers, and become active, visible members of the learning community" (Ministry of Education 2006, p 25). While there is an element of truth in such statements, it should also be acknowledged that learning can be a solitary affair – entering the imaginary world of a novel or reflecting on the significance of historical incidents, for example. Forcing students to accept one another and to form positive relationships with teachers, parents and the community at large smacks of social engineering and, if taken too far, represents a denial of the individual's right to be sceptical and to challenge prevailing orthodoxies.

The statement that: "Learning is inseparable from its social and cultural context" also suggests a narrow and superficial understanding of the nature and purpose of education (Ministry of Education 2006, p 25). A classical view of education represented by a liberal/humanist perspective suggests that education is not simply a social/cultural construct and that to be educated, by definition, should allow one to be objective and to stand apart from one's immediate context. As argued by Elizabeth Rata of the University of Auckland (2002, p 1), an essential aspect of education should be to allow students to develop what she terms the "critical reasoning of the autonomous individual". While such a view of education is steeped in the Western tradition, it provides an independent site from which to offer a critique. As suggested by the American scholar Israel Scheffler (1969, p 83), education is valued to the extent that it is able to:

> . . . facilitate independent evaluation of social practice . . . as instruments of insight and criticism, standing apart from current social conceptions and serving autonomous ideals of inquiry and truth.

Notwithstanding the curriculum draft stating that the research concludes that students learn best when a developmental approach is adopted, there is evidence that more formal, teacher-directed approaches to pedagogy are effective. Within the United States, *Project Follow Through*,[15] a billion dollar, nationwide research project that continued for some years evaluating a number of different approaches to teaching, concluded that more formal methods of classroom interaction, summed up by the description 'direct instruction', are more effective than the types of learning approaches associated with developmentalism and outcomes-based education. As noted by Rhonda Farkota (2003, p 238), the evidence from *Project Follow Through* is that:

> . . . student-directed learning had consistently more negative outcomes than those achieved in traditional education on all measures of basic skills, cognitive development, and self-esteem. Further, across multiple implementations and settings, it [student-directed learning] was shown to be vastly inferior to traditional education.

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[15] See Carnine (2000, pp 4–8) for a description of *Project Follow Through* and its principal conclusions and recommendations.

Designing a school curriculum

The model of curriculum embodied in the New Zealand curriculum draft, in addition to adopting an OBE approach, is premised on the priority of school-based curriculum development (SBCD).[16] Rather than providing schools and teachers with a map of what is to be taught, as a syllabus approach does, the belief is that schools should be given the flexibility and freedom, within broad guidelines, to enact their own curriculum. The curriculum draft states:

> While the New Zealand Curriculum sets the national direction for learning for all students, each school will design and implement its own curriculum . . . Schools have considerable freedom in deciding exactly how to do this (Ministry of Education 2006, p 26).

Within the Australian context, SBCD was the accepted model for much of the 1970s and 1980s. Beginning with the national statements and profiles,[17] developed during the early 1990s, the majority of states and territories have abandoned SBCD in favour of providing schools with framework documents that detail the learning outcomes that students in all schools are expected to demonstrate.[18] It is also the case that those stronger-performing countries as measured by the TIMSS tests have centrally developed syllabuses that provide teachers with a clear and concise road map of what is to be taught. As noted in the Education Review Office (ERO) report *In Time for the Future* (ERO 2000, p 61), when compared with curriculum development in Singapore, Korea, the Netherlands and Ireland, New Zealand is alone in the way teachers are expected to become curriculum experts:

> The task of developing class programmes directly from national curriculum statements or targets is both difficult and time consuming . . . Only in New Zealand have teachers been expected to develop programmes and lessons directly from national curriculum objectives.

Not only is SBCD time consuming and costly in terms of schools and teachers having to recreate already existing material when developing their own class programmes, there is the added concern that not all teachers and schools are equally able to address the

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[16] The paper *School-based curriculum development: principles, processes, and practices* (Bolstad 2004) describes SBCD as involving school staff making decisions about programmes of learning for their students' collaborative decision-making processes; and an alternative to "top-down" or "centralised curriculum decision-making".

[17] While the national statements and profiles were intended to impose more direction and structure on schools, in terms of detailing expected learning outcomes, the irony is that syllabuses were not seen as the mechanism for achieving such direction. The expectation was that schools and teachers would design their own course outlines/syllabuses based on the outcomes provided.

[18] Bolstad (2004, p 3) makes the point: "Clearly, at least in the English-speaking countries listed above [Australia, United States, Canada, United Kingdom and New Zealand], interest in 'school-based curriculum development' was at its zenith during the 1970s and 1980s. The use of this term in the literature trickled off dramatically from the mid-1990s. Why is this so? One possible reason, supported by some readings in the literature, is that SBCD faded from the educational landscape with the onset of widespread educational reforms in many countries during the late 1980s and early 1990s".

task. Those involved in the first meeting of the Curriculum Stocktake Reference Group listed a range of concerns, including: "inadequate teacher subject knowledge, insufficient teacher development, inadequate short-term provision of professional development, inadequate advisory support and the demands on school budgets". The ERO also makes the point that not all schools and teachers are equally able to meet the demands placed on them by New Zealand's SBCD approach (ERO 2001, Question 4). Not only are smaller schools disadvantaged compared with larger schools, but not all teachers have the same ability and expertise to develop their own course outlines:

> New Zealand teachers are currently expected to be experts not only in pedagogy but also in curriculum development, implementation and review. There are many teachers who are meeting these demands well. The priority, however, should be to ensure that all teachers have the assistance they need to plan and deliver high quality programmes to meet the needs of their students. This requires an ongoing focus both on the curriculum itself and on teaching resources to support the curriculum (ERO 2001, Part 1, p 7).

While an argument might be put that the 2006 draft curriculum will be easier to implement, given that it is not as lengthy or detailed as the previous curriculum framework and related statements of learning, it is still based on an OBE approach and an SBCD model of delivery. As such, the same problems will arise.

A further concern with this section of the draft curriculum document is the prevalence of what Stone (1996) describes as developmentalism (see footnote 13). The statement that: "Careful planning results in a school curriculum that is connected, coherent, and balanced" (Ministry of Education 2006, p 26) expresses the kind of progressive education sentiment associated with OBE, but there is no explanation of what is meant by "connected, coherent and balanced" and why such qualities should be given pre-eminence. Based on a liberal/humanist view of education, associated with writers such as Peters (1973), White (1973), Hirst (1974) and Crittenden (1981), an argument can also be put that the school curriculum should be grounded in the academic disciplines, be intellectually rigorous and focused on developing what Brian Crittenden describes as education for rational understanding. The statement in the curriculum draft that: "Curriculum design usually starts with the shared values and beliefs of the community or with an assessment of the learning needs of the students" also belies an unquestioned acceptance of OBE. While the learning needs of students and the values and beliefs of a school's community are important influences when designing curriculum, of equal if not greater importance is the type of knowledge, understanding and skills associated with what it means to be educated.

Planning with a focus on outcomes

This submission has emphasised the point that the model of curriculum development adopted by the draft curriculum document is based on an OBE model. Further evidence that this is the case can be found in a number of statements made in this section of the report. Two of the defining characteristics of OBE are the belief that all students are capable of success and that students learn in different ways and at different stages. As argued by William Spady (1993, pp 17–18):

> Traditionally, school systems have been used basically as selecting and sorting mechanisms. The agenda has been based around getting 'smart kids' into university. We want to present changed expectations by implementing the concept that if every student is given enough time and enough support, he or she will accomplish the goal. Outcomes will eventually occur for everyone . . . A fundamental aim of OBE is for all students to succeed.

The curriculum draft (p 28) mirrors such an approach when it states:

> The curriculum assumes that all students can learn and succeed, but not necessarily on the same day, at the same time, or in the same way . . . It imposes no limits on how many students can be successful, on how much they can learn, or how rapidly they can advance.

While the belief that all students are capable of success, given enough resources, attention and time, is laudable, the reality is that not all students are as motivated, capable and willing to learn as others. In adopting a developmental approach to learning, a situation where outcomes embrace a number of year levels on the assumption that students learn at different rates, there is a danger that students are promoted from year to year without having mastered the type of essential learning without which further progress is difficult, if not impossible, to achieve. One of the benefits of a syllabus approach to curriculum development, favoured by those systems that outperform New Zealand in the TIMSS tests, is that the curriculum is year–level specific and there is the expectation that students demonstrate a minimum level of competence in relation to what is taught.

Given the vague and generalised nature of many of the achievement objectives, the point also needs to be made that the statement in the curriculum draft that: "Teachers, students, and parents find it easier to recognise, measure, and discuss progress when they have shared understanding of the desired outcomes" is open to doubt. At level 5, in relation to English, and under the heading 'Language features', one of the achievement objectives is that students can "Select and use a range of language features appropriately for effect". Such a statement begs the question, *what* language features? At the same level, in the social studies learning area and under the heading 'Continuity and change', one of the achievement objectives is listed as "Students learn about past events, experiences, and actions, and their changing interpretation over time, to understand about the past, the present, and possible futures". Not only is there no guidance about *what* past events, experiences and actions should be studied, but the expectation that students will be able to understand the past, the present and possible futures appears unrealistic.

As noted in the report prepared by Le Métais (2002) for the Ministry of Education, the previous attempt to detail student learning in terms of achievement objectives was considered a failure. Not only did Le Métais conclude that they were impossible to measure, she also felt it was impossible to ensure that teachers across different schools had the same understanding of what constituted various levels of ability.

> The Achievement Objectives are the most contentious and, arguably, the weakest, element of the curriculum documents. They are perceived, and act, as a constraint on teaching and learning, but they do not lend themselves to reliable assessment and meaningful reporting of performance (Le Métais 2002, p 26).

> Most importantly, the responsibility for converting Achievement Objectives to learning outcomes and learning experiences is delegated to teachers, resulting in a lack of comparability between student grades (Le Métais 2002, p 54).

Given that the achievement objectives listed in the 2006 curriculum draft are expressed in the same fashion as those in the previous curriculum statements, one can only conclude that the types of concerns mentioned by Le Métais will still apply.

Planning for purposeful assessment

In relation to assessment, it is possible to distinguish between summative and formative assessment. Whereas summative assessment involves testing students at the end of a set period, usually under examination conditions and where students are ranked in terms of performance, formative assessment is based on the assumption that all students can achieve success and that the purpose of the assessment is diagnostic. Outcomes-based education favours formative assessment, as does the New Zealand curriculum draft when it states: "The primary purpose of assessment is to improve students' learning and teachers' teaching as both student and teacher respond to the information that it provides". Many of the characteristics of effective assessment listed, such as 'it benefits students' and 'it involves students', also reflect an uncritical acceptance of an OBE approach. For example, while it is true that: "When students see that they are making progress, their motivation is sustained and their confidence increases", it is also the case that telling students that they have failed a particular exercise or task can lead to a willingness to improve.

One of the characteristics of stronger performing education systems as measured by the TIMSS tests is that they have regular testing and examinations, sometimes used to stream students and to decide whether students should be promoted from year to year. As noted earlier, when referring to the influence of William Spady, an OBE approach is one where students are assessed over extended periods of time and they no longer fail or are ranked against one another. As a result, there is less pressure on students to succeed and fewer consequences for failure. The failure of OBE to regularly test students against objective standards linked to the basics also means that students are often promoted through school without mastering essential knowledge and skills. Stronger overseas systems generally test students at the end of primary school and use the results to stream students into different ability or interest groups with a differentiated curriculum, especially in mathematics and science. Research related to analysing TIMSS and TIMSS-R results also concludes that better-performing countries have externally managed, centralised examinations, generally at the end of the year, with less emphasis on school-based assessment.[19]

> The evidence from TIMSS-R confirms previous evidence from TIMSS that students in countries with central exit-exam systems perform better in their middle-school years both

[19] See Bishop (1999), Woessmann (2000, 2002), Jurgess *et al* (2003) and Fuchs and Woessmann (2004).

> in maths and in science than students in countries without central exams. This finding holds even after controlling for a large set of variables reflecting family background, resource endowment, and other institutional features of the school system (Woessmann 2002, p 5).

After analysing the year 2000 Programme for International Student Assessment (PISA) data, Fuchs and Woessmann (2004, p 22) make the additional point that systems and schools adopting standardised tests also appear to generate better results in mathematics and science. The rationale for stressing high-risk end-of-year examinations, as noted by Bishop, is the observation that:

> Learning requires the time and active engagement of students. It therefore stands in competition for students' time with other, presumably more pleasant uses. The incentives to study – rewards that increase the benefits of studying and penalties that increase the cost of failing to do so – will determine the intensity of a student's investment in learning (Bishop 1999, quoted in Woessmann 2000, p 21).

3
THE NEW ZEALAND CURRICULUM DRAFT FOR CONSULTATION 2006: AN INTERNATIONAL PERSPECTIVE

An important aspect of developing the *New Zealand Curriculum Framework* and related curriculum statements, and undertaking the curriculum stocktake, has been a willingness to evaluate New Zealand's approach within an international perspective. The *New Zealand Curriculum Framework* signals the intention to raise the standard of teaching and learning to the "highest international standard". When outlining the purpose of the stocktake report (Ministry of Education 2002, p 1), reference is made to:

> . . . (analysing) the quality of these curricula in contributing to improved student outcomes, meeting the expectations of a range of stakeholders and against comparable international curricula.

As noted by the stocktake report (Ministry of Education 2002, p 7), the UK National Council for Educational Research and the Australian Council for Educational Research were commissioned by the New Zealand Ministry of Education to undertake a 'critique' of New Zealand's approach to developing the intended curriculum, in particular, to evaluate:

- the standing of the New Zealand curriculum in relation to international views of effective curriculum
- their educational integrity
- their potential for supporting effective educational practice.

In summarising the conclusions reached by the two reports (Le Métais 2002, Ferguson 2002), the writers of the stocktake report state that New Zealand's approach to curriculum development is "theoretically similar to other curricula", that "the curriculum is sound in terms of its educational integrity and its potential for supporting effective educational practice" (Ministry of Education 2002, p 7). The distinct impression one is left with is that the New Zealand model of curriculum development is in line with international 'best practice'.

Unfortunately, this is not the case.

In addition to the two reports commissioned by the Ministry of Education, it should be noted that the Education Forum commissioned a similar exercise, undertaken by the author.[20] As noted in the report's executive summary, the conclusion reached differs

[20] See Donnelly (2002). Of interest is that the stocktake report to the Minister of Education makes no mention of the Donnelly report.

from that arrived at by Le Métais and Ferguson. The Donnelly report argues (Donnelly, 2002, p viii) that the New Zealand curriculum:

- adopts a flawed and sub-standard outcomes-based approach to curriculum that, while being prevalent during the late 1980s and early 1990s, has since been largely abandoned by equivalent education systems such as those in Australia and the United States;
- fails to properly recognise the strength and superiority of either a 'syllabus' or 'standards' approach to curriculum development utilised by successful education systems such as Singapore, the Netherlands, the Czech Republic and South Korea;
- uncritically adopts a process-based approach to curriculum that fails to properly recognise the central importance of educational content; and
- unduly emphasises a student-centred view of learning to the detriment of what Jerome Bruner terms the 'structure of the discipline'.

As stated previously, the OBE model on which New Zealand's approach is based has only ever been adopted by a handful of countries and many of them have experienced a range of problems. The NSW review of outcomes-based education,[21] chaired by Ken Eltis, concluded that there was very little, if any, evidence proving the benefits of OBE or evidence that it had been successfully implemented elsewhere. Gita Steiner-Khamsi (2006) also reported that OBE has only ever been adopted by a handful of countries, including New Zealand, Australia, England and Wales, Canada and the United States. Significantly, unlike New Zealand, which has persevered with OBE, the majority of the countries listed have since either abandoned OBE in favour of other approaches or discovered that the new curriculum approach was impossible to implement as originally designed.

The various states of America, after experimenting with OBE during the early to mid-1990s, have since changed to a standards approach to curriculum. Unlike OBE, with its fuzzy and vague description of what students should learn and its 'feel-good' approach to testing and assessment, a standards approach to curriculum, as defined by the American Federation of Teachers[22] and the Thomas B Fordham Institute,[23] is far more academic, rigorous and teacher friendly. A standards curriculum:

- is related to specific year levels instead of covering a range of years
- acknowledges the central importance of the academic disciplines
- is benchmarked against the world's best equivalent documents

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21 For a summary of the review, see Eltis (1995).

22 The American Federation of Teacher's outline and justification of a standards approach to curriculum can be found at: <http://www.aft.org/topics/sbr/index.htm> (last accessed November 2006).

23 An analysis of US curricula in terms of standards can be found at the Thomas B Fordham site: <http://www.edexcellence.net/foundation/topic/topic.cfm?topic=Curriculum%20%26%20Instruction> (last accessed November 2006).

- incorporates regular testing and removes automatic progression from year to year
- details what should be taught in a way that is specific, easily understood and measurable
- is more teacher-directed, with an increased focus on direct instruction.

In England and Wales, South Africa and Ontario, Canada, a good deal of criticism was directed at OBE as it was being implemented during the 1990s. In England and Wales, the first edition of the national curriculum was attacked as unwieldy and, especially at the primary level, overly detailed and cumbersome. In South Africa and Ontario, classroom teachers criticised OBE on the grounds that it led to a dramatic increase in workload, was full of educational jargon, watered down academic standards and made teaching unnecessarily complex and frustrating.[24] Australia's adoption of OBE has also made the work of classroom teachers increasingly onerous and difficult. As noted by the Australian academic Patrick Griffin (1998, p 19):

> Perhaps OBE cannot be fully implemented system wide. The changes needed are too radical and disruptive for whole systems of education to accommodate. Like most innovations, the ideal scenario is unlikely to be realised and the change will move through the system, leaving traces of the change in its wake.

Since the development of Australia's national statements and profiles, and various equivalent state and territory approaches to the curriculum, there have been a number of reviews and reports on how OBE has adversely impacted on classroom teachers.[25] Complaints about OBE can be summarised as including:[26]

- the excessive number of curriculum outcomes detailing what students should learn, especially at the primary school level, that overwhelm teachers and promote a check-list mentality
- the jargon-ridden and generalised nature of the outcome statements that make it impossible for teachers to know what they refer to
- the superficial and patchy nature of the outcome statements that work against students learning essential knowledge, understanding and skills associated with the subject disciplines
- the difficulties involved in managing and recording individual student assessment as a result of trying to assess and record work on a continuous basis using descriptive assessment

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[24] See Eltis (2003, pp 20–21) for a summary of the problems faced with the introduction of England's national curriculum. Hargreaves and Moore (1999) outline some of the difficulties teachers in Ontario faced, and Boughey (2005) details a number of criticisms of South Africa's adoption of OBE.

[25] See Eltis (1995), Griffin (1998), Blyth (2002) and Vinson (2002, pp 89–94) for a range of criticisms of Australia's adoption of OBE.

[26] The summary and details about difficulties in implementing OBE are taken from the report *Benchmarking Australian Primary School Curricula* undertaken by the author – see Donnelly (2005).

- linking assessment and reporting of student outcomes to levels incorporating a number of year/grade levels
- a sense that curriculum development is occurring far removed from the realities of the classroom and is unresponsive to the needs of teachers and students.

In addition to OBE only being associated with a handful of countries and there being significant theoretical and practical concerns about its value and effectiveness, it is also the case that New Zealand's OBE-inspired approach to the curriculum is out of step with international best practice. As previously mentioned, those countries that consistently perform at the highest level in international tests, such as Singapore, Japan, the Republic of Korea, Hong Kong, the Netherlands and the Czech Republic, adopt a syllabus approach to curriculum development. Unlike OBE, a syllabus approach is one where the curriculum relates to year levels and is expressed in terms of content to be taught, where students experience summative assessment and where there is often streaming based on a differentiated curriculum.[27]

Much of the recent research about how students best learn also provides evidence that OBE is flawed and educationally unsound. Take, for example, OBE's emphasis on constructivism. The Australian report, *Teaching Reading* (National Inquiry into the Teaching of Literacy 2005, p 84), defines constructivism as:

> . . . a theory of learning that builds on the work of Piaget, Bruner and Vygotsky, which views students as inherently active, self-regulating learners who construct knowledge cooperatively with other learners in developmentally appropriate ways . . . Adoption of a constructivist approach in the classroom involves a shift from predominantly teacher-directed methods to student-centred, active discovery learning and immersion approaches via cooperative group work, discussion focused on investigations and problem solving.

Associated with constructivism are many of the characteristics of progressive education. Instead of using more formal and direct methods of teaching, in the mistaken belief that students should be given control over their own learning, teachers are told to become 'facilitators'. Instead of standing at the front of the room teaching in a formal way, teachers are told to relate what is being taught to the immediate world and interest of the student and to use a more hands-on approach. Whereas the more conservative approach to teaching, while acknowledging the importance of the student, primarily focuses on what is to be learned in terms of essential knowledge, understanding and skills, a constructivist approach considers the content of learning, that is, what is to be taught, secondary to the process of learning.

There are a number of flaws in a constructivist approach to learning. In particular, during the early primary school years, research associated with how children best learn suggests that formal, direct methods of teaching are more effective. As argued by the Australian academic, Rhonda Farkota (2005, p 1), successfully mastering higher order skills first requires being taught the basics in a structured, systematic way. In criticising

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[27] For a description of how various countries construct different approaches to curriculum, see Robitaille (1997) and O'Donnell (2004).

the widespread influence of student-centred learning associated with outcomes-based education, Farkota argues:

> It is generally accepted that a student-directed approach is more suitable when it comes to the employment and cultivation of higher order skills where reasoning and reflection are required. However, for the acquisition of basic mathematical skills, the research clearly shows that teacher-directed learning is better suited. Needless to say, these basic skills must be firmly in place before students can approach problem-solving questions with any degree of competence.

This is especially so when learning lower order skills like times tables. As noted by the American academic ED Hirsch Jr (1997), in summarising the research into how children best learn, the consensus is that such skills have to be memorised to such an extent that they can be recalled automatically:

> . . . varied and repeated practice leading to rapid recall and automaticity is necessary to higher-order problem-solving skills in both Mathematics and the Sciences. They [researchers] would probably explain to you that lack of automaticity places limits on the mind's channel capacity for higher-order problem-solving skills. They would tell you that only intelligently directed and repeated practice, leading to fast, automatic recall of math facts, and facility in computation and algebraic manipulation can lead one to effective real-world problem solving. Anderson, Geary, and Siegler would provide you with reliable facts, figures, and documentation to support their position, and these data would come not just from isolated lab experiments, but also from large-scale classroom results.

In relation to spelling correctly, the Australian academic Peter Knapp also argues that memorisation and rote learning are important.[28] In explaining why children in Singapore are better at spelling than Australian children, Knapp argues that "practice and memory" are vital and that while Singapore has continued with these more traditional approaches to teaching, in Australia, as a result of outcomes-based education, such practices have long fallen out of favour because of the supposed belief that rote learning is old fashioned and ineffective.[29]

In addition to memorisation being important, research also suggests that more direct and formal methods of teaching are preferable to small group and individual inquiry-based learning. Not only is whole class teaching a more effective use of teacher time than moving from table to table helping individual students, it is also in line with how children best learn. As argued by John Sweller (2002, p 9), an academic at Sydney University:

> . . . information should always be presented in direct rather than indirect form . . . This principle applies equally to all educational contexts but flies in the face of much educational theory of the last few decades. Beginning with discovery learning in the 1960s and extending to the constructivist learning techniques of the 1980s and 1990s, enquiry-based instructional techniques have gained a considerable following amongst educational

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[28] Quoted in Ferrari (2006).

[29] See Ferrari (2006).

> theorists . . . In all cases, learners are required to discover information that needs to be learned rather than having the same information presented to them. There is no aspect of human cognitive architecture that suggests that enquiry-based learning should be superior to direct instructional guidance and much to suggest that it is likely to be inferior.

As mentioned, one of the most expensive and time-consuming evaluations of different approaches to learning, *Project Follow Through*,[30] reached a similar conclusion about the benefits of more formal methods of teaching. Beginning in 1967 and concluding in 1995, a range of different teaching strategies were implemented and evaluated across some 180 school sites, ranging from direct instruction to OBE-type discovery learning. In the words of Bereiter and Kurland (1981), the report concluded:

> The two high-scoring models according to our analysis are Direct Instruction and Behaviour Analysis; the two low-scoring are EDC Open Education and Responsive Education. If there is some clear meaning to the Follow Through results, it ought to emerge from a comparison of these two pairs of models. On the one hand, distinctive characteristics of the first pair are easy to name: sponsors of both the Direct Instruction and Behaviour Analysis models call their approaches "behavioural" and "structured" and both give a high priority to the three R's. EDC and Responsive Education, on the other hand, are avowedly "child-centered." Although most other Follow Through models could also claim to be child-centered, these two are perhaps the most militantly so and most opposed to what Direct Instruction and Behaviour Analysis stand for.

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[30] A description of *Project Follow Through* can be found at <http://fcis.oise.utoronto.ca/~daniel_schugurensky/assignment1/1967followthrough.html> (last accessed November 2006).

4
THE ALTERNATIVE

> Each discipline represents a body of knowledge and a "disciplined" way of thinking that has evolved over centuries. To be complete, a set of standards must embody the knowledge essential to each of the core subjects, and this cannot be accomplished by trying to fit disciplinary knowledge into broad over-arching, non disciplinary categories such as "critical thinking" and "problem solving." If standards setters ignore or significantly blur disciplinary boundaries, they risk losing the integrity of the disciplines—the essential knowledge and skills that make each subject unique (American Federation of Teachers 2003, p 5).

Whereas the New Zealand approach to developing the school curriculum embodies OBE in opposition to the more traditional subject-based curriculum, the education tide in the United States has turned against OBE in favour of a standards approach. The American Federation of Teachers (AFT) believes that all students have the right to learn about "the essential knowledge, skills and habits of mind that make each subject unique". Whereas the New Zealand curriculum draft for consultation gives priority to so-called competencies and OBE-type achievement objectives, the AFT's approach is to put the disciplines centre stage.

In arguing that the curriculum should be centred on particular subjects, like mathematics, history and English, the AFT draws on a view of education closely associated with the rise of Western civilisation that can be traced back over some hundreds of years. Since the time of the early Greek philosophers and sophists, evolving over the centuries and incorporating aspects of the Christian tradition and historical movements associated with the Renaissance, the Reformation and the Enlightenment, a liberal/humanist view of education is concerned, to use Matthew Arnold's expression when writing about culture, with: "getting to know, on all the matters which most concern us, the best which has been thought and said in the world" (Arnold 1969, p 6). As noted by Brian Crittenden (2002, p 1), one time professor of education at La Trobe University, it is also the case that while subjects have evolved over time, there is much that has remained constant:

> In any area of systematic knowledge there is a range of key concepts, basic theories and method. They are not immune to change, but are relatively long-term. They are the defining features of a discipline or area of systematic knowledge. In several areas (such as the physical Sciences) content has changed fairly rapidly, although methods have tended to be more enduring – and, in all cases, there is at least a core of relatively stable knowledge. The acquisition of a discipline's skills of inquiry needs to be closely related to the learning of its key concepts, theories and other central content.

Much of outcomes-based education is consumed by the need to be contemporary and immediately relevant. A liberal/humanist view of education, on the other hand, acknowledges and values the past. The reason for studying history is not simply so that we are saved from repeating the same mistakes. Equally as important is the recognition

that, as individuals and a society, we are involved in an unfolding narrative that began thousands of years ago and that continues to unfold into the future. Being part of that story promotes a sense of belonging to something more lasting and significant than the often mundane routine of one's day-to-day existence. One of the strengths of a liberal/humanist view of education, in a time of social dysfunction, alienation and loss of meaning, especially amongst the young, is that it provides a strong and life-affirming narrative about how Western civilisation has evolved and how, while being far from perfect, we are no longer ruled by superstition, bigotry and ignorance. David Green (1996), in summarising an address to the Mont Pelerin Society by the historian Max Hartwell, describes a liberal/humanist view of education as follows:

> The content of a liberal education, he [Max Hartwell] says, should embrace civility, morality, objectivity, freedom and creativity. By civility he means respect for other people; by morality, the elementary maxims such as honesty and fairness; by objectivity, belief in the disinterested examination of facts and arguments, without fear or favour; by freedom, the principle that children should be equipped to exercise personal responsibility; and by creativity, belief in the advance of knowledge – not the perfectibility of man, but the possibility of progress.
>
> Hartwell points out that a liberal education can be more easily defined negatively than positively: it is not utilitarian or interest-serving; it is not vocational or professional; it is not specialist or one-sided; it is not conformist and uncritical; it is not education for doing: it is disinterested, it is general and universal, it is critical and inventive, it is education for thinking and understanding.[31]

In a speech given at the Curriculum Corporation 2000 national curriculum conference in Melbourne, the London-based former chief inspector of schools, Chris Woodhead (2000, p 37), argues in a similar vein when he says:

> It is our responsibility as educators to ensure that our children are able to enter the world of meanings and understandings which constitutes the human condition. We must teach them about Science and Mathematics and Literature and art, for it is upon these disciplines or ways of understanding the world that our humanity depends.

It is significant that Bruce Wilson (2002, p 6), who was partly responsible for Australia's adoption of OBE, now acknowledges that any curriculum must recognise the central importance of particular subjects. After referring to the research associated with an American publication, *How People Learn*,[32] undertaken by the National Research Council of the United States, Wilson argues:

> The report offers powerful confirmation of the key idea in this paper: that transferable, higher order learning, what I am calling deep understanding, is inseparable from a well-organized body of content knowledge which reflects a deep understanding of specific subject matter.

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[31] The reference to David Green's summary of Hartwell's speech is taken from a paper by the headmaster of Wellington College, Roger Moses (2002).

Instead of designing a curriculum around values and key competencies like equity, diversity, managing self and relating to others, or what Spady (1993) terms a transformational outcomes-based education approach, the proper starting point is to map out the essential knowledge, understanding and skills associated with particular subjects. Subjects like history, mathematics and English are unique in the way they order experience and understanding of the world and each has its own way of deciding what is right and wrong. Solving a mathematical equation correctly is very different from successfully analysing the poetic devices in a poem by William Wordsworth, but for a person to be considered educated, knowledge of both techniques is necessary. It is also true that a liberal/humanist view of education values the aesthetic, the moral and the spiritual as highly as the rational. A well-rounded education should encompass the spiritual and moral value of the literary canon represented by Greek tragedies, Shakespeare and the Romantic poets as well as great art works and classical music. Young children, in particular, as noted by the prominent American psychologist Bruno Bettelheim, need a steady diet of those myths, fables and legends that tell us about emotions such as betrayal, love and bravery, and which help to develop psychological maturity and the ability to overcome disadvantage by being resilient.

It is also the case, contrary to the belief that learning is subjective and relative, that there are some absolutes and some interpretations of the world around us that are closer to the truth than others – Ptolemy's version of the heavenly movements was superseded by Copernicus and William Harvey dispelled many of the mistaken beliefs about the heart's operation and how blood circulated around the body. Contrary to the criticism that the traditional academic curriculum is unchanging, history shows us that disciplines evolve and what is accepted as true at one point of time is open to scrutiny and debate. As noted by Gibbons (2004, p 29), when discussing science as a subject:

> The purpose of Science is to seek explanations of the physical world. Proposed explanations are tested against the physical world and, depending upon the success in accounting for that physical world, may be accepted as a step in the search for truth. The matter is a search, a quest, for the condition of scientific inquiry is one in which there is progress from one theory to the next.

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[32] An electronic copy of *How People Learn* can be found at the National Research Council's internet site: <http://www.nap.edu/openbook/0309065577/html/index.html> (last accessed November 2006).

5
RECOMMENDATIONS

It is submitted that those responsible for developing New Zealand's school curriculum should be willing to assess fundamental issues and be open to acknowledging past mistakes. In this context, the following recommendations are offered:

- as opposed to adopting an outcomes-based education model of curriculum, the New Zealand authorities should implement either a syllabus or standards approach
- as a consequence, teachers need to be given a clear and succinct map of what is to be taught and of the expected learning outcomes in the various subject areas
- instead of mandating the curriculum as a whole, a core/elective model be adopted to allow both centrally mandated curricula and school-based curriculum development
- achievement objectives should be year–level specific and rewritten to ensure that they are concise, unambiguous, have strong academic content and are teacher friendly
- instead of promoting what Stone (1996) describes as developmentalism, the curriculum be premised on the priority of more formal and direct methods of teaching, summative assessment and, while acknowledging the world of the student, be focused on promoting the type of deep understanding associated with the established disciplines.

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