It's About Time That Teacher Education Began To Critically Examine The School Curriculum: Against Philosophical Naiveté and Political Conservativism

John Clark

This paper argues that *The New Zealand Curriculum Framework* (1993) is both philosophically problematic and politically conservative. It questions whether the 'categories of knowledge' approach inherent in the framework can be justified. There appears to be no agreement about how knowledge is to be demarcated as the basis for curriculum development. An alternative epistemological model is proposed which is holistic and a curriculum consistent with holism, the Queensland New Basics, is briefly outlined. It is recommended that Teacher Education begin to critically examine the Curriculum Framework, rather than take it as a given, and to seriously consider the holistic alternative.

Although institutions which provide pre-service teacher education programmes have some discretion about what to include in their offerings, there are also some centrally mandated requirements to be met if graduates are to be registered and employed. One of these compulsory obligations is to ensure that all those preparing to become teachers are introduced to *The New Zealand Curriculum Framework* (Ministry of Education, 1993) and its more detailed operation contained in the specifications of the curriculum statements for the seven essential learning areas.

Of course, if students are to be registered as teachers then the onus must be on the institution providing teacher education to ensure that the mandated requirements are met. The institution would be failing in its obligations if it did not. This obligation, however, appears to have been interpreted to mean no more than simply getting students to accept as a given the Ministry approved position and to just get on with the job of teaching what is laid down. All this does, however, is to conceal what is philosophically problematic about the official curriculum and reinforce a political conservatism over its implementation. It does no more than sustain the ideological status quo. What is required is something more demanding. While students may need to work within the structures determined for them by others, if for no other reason than it is prudent for them to do so if they wish to be registered, they should nonetheless be instilled with the Socratic dictum that "the unexamined life is not worth living" and so adopt a critical attitude towards the official curriculum. Through a critical attitude they might then challenge the curriculum's philosophical and political assumptions and implications in order to generate more sophisticated conceptions and so enhance teachers' teaching and learners' learning within an educative milieu. If *education* and teacher *education* are to be taken seriously then teacher education institutions have a moral obligation to adopt a critical attitude towards the Curriculum Framework and encourage this attitude in their students.

The Curriculum Framework: Philosophically problematic and politically conservative

The New Zealand Curriculum Framework (1993) is both philosophically problematic and politically conservative. It is philosophically unsound because it adopts a particular view of the nature and structure of knowledge and does so without justification. It is politically conservative because it maintains traditional subject boundaries which reinforce departmental structures in schools and teacher education institutions.

The Curriculum Framework identifies what it calls seven essential learning areas: science, social science, mathematics, health and physical wellbeing, language and languages, the arts, and technology. The

rationale for this particular partitioning of knowledge is stated thus: "The essential learning areas are broad, recognisable categories of knowledge and understanding. They provide the context within which the essential skills and values are developed" (Ministry of Education, 1993: 8). There are two particular problems with this account of knowledge: first, the so-called "recognisable categories of knowledge and understanding" ignores some fundamental philosophical disagreement about how knowledge is to be demarcated, if it is to be demarcated at all; and, second, it is by no means self evident that categories of knowledge occupy the logical high ground for the development of skills, and more particularly values. Each of these objections needs some further consideration.

Categories of knowledge: That the Curriculum Framework should adopt a partitioned curriculum is not without ample precedent. The 1877 Education Act introduced a national curriculum which brought with it a set of discrete subjects. This historical arrangement has been retained through various curriculum revisions over the past 125 years and remains with us today. What the Curriculum Framework, like its predecessors, fails to do is provide any justification for three fundamental and closely related assumptions:

1.   That knowledge can be partitioned in some way;
2.   That knowledge should be partitioned in this way; and
3.   That the curriculum ought to be based on this view of partitioned knowledge.

As we shall see, all three assumptions are problematic.

Can knowledge be partitioned?

The idea that knowledge can be partitioned is not new. Like a cake, it is assumed that the whole of knowledge can be cut up or at least divided into smaller pieces, which have a certain amount of logical differentiation; that the various components have a measure of internal coherence sufficient to distinguish each from the rest. This picture of knowledge demarcation holds only so long as a simple model is applied: for example, if knowledge is likened to the colours of the rainbow then it is not too difficult to conceive of knowledge as being divisible in a similar way. Just as we can identify the primary colours (red, yellow, blue), which are easily picked out and separated from one another, so too for knowledge (e.g. mathematics, science, aesthetics etc.). But the picture of the rainbow over-simplifies the matter. Take another image: collect paint charts with as many colours as possible and arrange them in a long continuum, perhaps in the order of the rainbow or perhaps not. With each colour grading only slightly differently from the ones either side, then the boundaries between red, orange and yellow, or yellow, green and blue are no longer obvious. The colour gradations are extremely fine so drawing a line between colour groups becomes very much a matter of personal judgement, if we are able to draw a line at all. Consider knowledge in the same way – if it is all just 'laid out' in a similar fashion then likewise we will have difficulty in determining where to put the boundaries around bodies of knowledge. There seems to be no logical basis for doing so, thus it needs to be asked whether there is any good reason for supposing that knowledge can be logically partitioned at all. As will be noted later, if knowledge is likened to a spider's web, then the answer must be a firm 'No'.

How is knowledge to be partitioned?

Even if we grant that knowledge can be partitioned in some way, as partitionists insist, there is very little agreement about how divisions are to be determined. The grounds for partitioning knowledge in this way or that are usually logical in kind with some rational principles which can be applied to demarcate various bodies of knowledge. Hirst (1965), for example, in his influential account of liberal education and the nature of knowledge, distinguishes seven forms of knowledge according to the following criteria: (1) they each involve certain central concepts that are peculiar to the form; (2) within a form, concepts denote certain aspects of experience and constitute a network of possible relationships (sentences) in which experience can be understood; (3) the form, by virtue of its concepts, terms and logic, has statements that are testable against experience; and (4) the forms have developed particular tech-

niques and skills for exploring experience and testing their distinctive expressions. The purpose of drawing attention to Hirst's criteria is not to defend them but to demonstrate the sort of logical case that is often made for demarcating bodies of knowledge rather than arriving at differentiation on purely practical grounds. If this is so, then a high degree of agreement and uniformity could be expected, logic being what it is, but this is not so at all. Consider the following 'cuttings of the knowledge cake' where, while admitting some similarities (mathematics/science), there are many differences and potential difficulties that raise awkward questions about the whole project of knowledge demarcation.

1. **Two categories:** the logical positivists held firm to the supposed logical distinction between analytic and synthetic statements. Analytic claims (logic, mathematics) are true according to the meanings of the terms such that analysis of statements is all that is required to determine their truth or falsity. The truth of synthetic claims (empirical science) is determined by verification through observation. All else (ethical, religious claims) are no more than subjective preferences which are neither analytic nor synthetic; so these are not knowledge claims. Such a position was advanced by O'Connor (1957).

2. **Three categories:** Aristotle proposed a triumvirate – the theoretical, the practical and the productive. The theoretical consists of what we now call propositional knowledge expressed as 'I know that…'; the practical embodied ethical knowledge of the good life; and the productive led to the creation of artefacts.

3. **Four categories:** Peterson (1960) proposed a curriculum for a general education based on four modes of intellectual activity: the logical, the empirical, the moral, the aesthetic.

4. **Five categories:** Broudy (1962) devised a curriculum based on five bodies of knowledge: symbolic tools of thinking, communication and learning (logic, art); systematise basic facts and their relations (science); organise information along the routes of cultural development (history, biography); project future problems and attempt to regulate the activities of the social order (technology, economic); and the integrative and inspirational disciplines which create, synthesise or value schema (philosophy, theology).

5. **Six categories:** Phenix (1964) identified six realms of meaning: symbolics (language, mathematics, art); empirics (physical and social sciences); aesthetics (literature, music, art); synnoetics (personal knowledge); ethics; synoptics (philosophy, theology).

6. **Seven Categories:** Hirst (1965), in his influential account of a liberal education and the nature of knowledge, claimed that on the basis of such criteria as distinct concepts and unique tests of truth there are some seven forms of knowledge. These are: mathematics, natural science, history and social science, literature and the fine arts, ethics, religion and philosophy, although he was to revise some of the labels in the light of criticism.

7. **The almost infinite** – the last in our list. Philosophers of education from very different persuasions have advanced the idea that the differentiation of knowledge is far more extensive than usually granted. Barrow (1976), on utilitarian grounds, has argued that each sentence could be construed as a separate item of knowledge, similar to but slightly different from its neighbours. Similarly, postmodern theorists such as Peters (1995), drawing from Lyotard (1984) and Wittgenstein's (1953) notion of language games, make the same point that the rules of language lead to the conclusion that there are many more categories of knowledge, that they are almost infinite in number.

If there is so little agreement over the differentiation of knowledge might we not conclude that perhaps there is no logical way for it to be partitioned at all?

A partitioned curriculum

What justification does the Curriculum Framework give for the position adopted that there are seven essential learning area to which children must be introduced? The only thing said is this: these seven

ACCESS
Critical Perspectives on Communication, Cultural & Policy Studies
Vol. 23 (1) 2004, page 36

ACCESS
Critical Perspectives on Communication, Cultural & Policy Studies
Vol. 23 (1) 2004, page 37

areas are "recognisable categories of knowledge and understanding". In light of the disagreement set out above, it is by no means clear that this is a warranted justification. One can always ask, recognisable to whom? Part of the difficulty lies in a failure to spell out in the Curriculum Framework document who, as a matter of fact, does recognise these categories as suitable curriculum divisions of knowledge. It is evident that philosophers of education do not provide the epistemic basis. Neither, it would appear, does any curriculum theorist. We simply do not know who, beyond those in the Ministry of Education responsible for constructing the Curriculum Framework categories, might be seen to recognise these categories.

Knowledge and the context of values

Problematic also is the idea that the essential learning areas, constituted by recognisable categories of 'knowledge', provide the context for the development of essential skills and values. Take values: it is assumed that knowledge is prior to values and that the development of the latter rests on the prior existence of the former, and that the development of the latter out of the former is quite straightforward. There are two fundamental objections to this account of the relationship between knowledge and values. The first is to be found in Hume's (1888) *A Treatise on Human Nature*, that those who seek to move from some factual claim (knowledge) to some conclusion about how we ought to behave (values) owe us an explanation of how they derive the 'ought' from the 'is'. This challenge the Curriculum Framework fails to address – how does knowledge (the 'is') provide a context for a development of values (the 'ought')? This seems to present a logically insurmountable problem to overcome.

The second objection comes in two related parts, both derived from Quine's (1953) naturalism and holism. We are born with bipartite neural equipment: we have a similarity standard which allows us to inductively, at first, see things as similar to or different from, according to our lights – these providing the basis for later empirical differentiation of experience. And we have a preference standard, liking or disliking according to our tastes, which evolves into our values. The two standards reciprocate: our similarity standard being initially inductive drives our preferences for this rather than that, and our early expectations of getting more of this and less of that; our preference standard, being evaluative, shapes the sorts of similarities and differences we impose on our experiecnce. From this biological inheritance is derived a further objection to the knowledge-values relationship advanced by the Curriculum Framework. Rather than being super- and sub-ordinate, knowledge and values are on a par in a web of belief, for as Quine (1953: 43) pointed out:

> The totality of our so-called knowledge or beliefs, from the most casual matters of geography and history to the profoundest of laws of atomic physics or even of pure mathematics and logic, is a man-made fabric, which impinges on experience only along the edges.

Thus the web is a sprawling totality of no part disconnected from the rest and all parts related. If this account is correct, as I take it to be, then the relationship between knowledge and values is not one of the dependency of the latter on the former but rather that the two have equal epistemic status and, insofar as they are not identical, exhibit parallel development that is rooted in a common genetic origin.

Political correctness

A partitioned curriculum maintains political conservatism in the organisation and structuring of schools and the relationships between staff, and staff with students. Because the Curriculum Framework identifies differentiated bodies of knowledge then it comes as no surprise that schools adopt similar patterns in their timetabling of subjects and departmentalisation of staff. The school day is demarcated into recognised units of time devoted to disconnected activities, especially in the secondary school, where what is studied in one subject, say history, has little or nothing to do with what is taught in literature or science. The links are often not made in the teaching of subjects, it being left to the students to somehow establish the connections in the light of their learning. How much more profitable would a student's

understanding be if the history of the industrial revolution was linked to the literature of the time (such as Dickens) and to related scientific practices? But just as significantly, a partitioned curriculum reinforces relationships amongst staff by the formation of departments, hierarchical in nature, differentiated by institutional status (mathematics *vs* physical education) and competitive in the struggle for the allocation of limited resources. Sectional interest overrides the greater good of the learner. These institutional boundaries protect professional commitment to existing subjects while establishing industrial protection of the status quo, against which rational challenge and debate is rarely welcomed.

If this is the case with schools, it is even more so with institutions involved in teacher education – which also tend to be organised along curriculum lines. A perusal of the organisational structures of colleges of education in New Zealand – both those that stand alone (such as Dunedin) and those that have merged with universities (Auckland, Massey, Waikato) – reveals a remarkable similarity in departmental arrangements which correspond to the Curriculum Framework design. The University of Auckland Faculty of Education, for example, has seven departments with exactly the same names as the seven essential learning areas. This sort of approach (also evident in other institutions) tends to indicate a taken-for-granted attitude which institutionally reinforces demarcation and which ought properly to be challenged. But the question is, how can staff and students challenge in powerful and systematic ways the very thing that the colleges and universities reproduce structurally? A further disturbing feature, somewhat related to the point just made, is that while students are required to study compulsory papers in the teaching of the seven essential learning areas, there is very little requirement placed on them to undertake studies in the subject matter of these curriculum areas, to do some science or humanities or social science. If ever there was an opportunity to take content papers in the old, three years plus one, Bachelor of Education programme, this has since been lost in the more recent introduction of three year degrees, which have tended to reduce the emphasis on the broader subject studies that focussed on liberal education in favour of a necessarily slimmed down programme. In the shorter time-frame more attention is given to the utilitarian aspects of curriculum practicalities in the classroom. Often all students know of science or mathematics, for example, is what is specified in the curriculum statements. Whether this can give them a sufficient grounding in these subjects is a moot point. At the very least, a return to a four year degree programme would help arrest the decline in the broader educational experience where liberal education has been replaced by practical utility.

This being so, if knowledge cannot be justifiably partitioned then there is no reason to construct a partitioned curriculum. One alternative is to consider the possibility that knowledge cannot be partitioned at all. Hence knowledge is holistic. A curriculum founded on holism would not be partitioned along the 'knowledge lines' discussed above but would instead draw off all our available epistemic resource to solve problems.

Holism and the problem-solving curriculum

Holism, as an epistemology, advances a unified approach to knowledge (Quine, 1995). It may be likened, by analogy, to a spider's web. The web is connected to real objects at points around its periphery, with the radiating strands holding the concentric threads to form a complete system. Likewise with our knowledge. Our senses are disturbed in their various ways and from these points of disturbance we posit things beyond ourselves, which we theorise may have caused these perturbations. Our theories range near and far: at the periphery are our observation sentences ("it is raining") which give the network its empirical content. These are occasion sentences, checked for their truth or falsity on each occasion of utterance. Distributed across the network holding it together are the statements of logic and mathematics: to give these up would be to give up the whole. Grading off from the empirical to the abstract are our theories of science, literature, history, ethics, aesthetics and the like. Just as there is no clear separation between components of the spider's web so too there are no logical demarcations of our knowledge into different forms. Whatever distinctions we might make for pedagogical purposes, they simply reflect the need for practical decisions about school organisation, curriculum planning and classroom

timetabling. A curriculum built on holism would need to present a picture of knowledge which is systematic yet dynamic: while some theories are, for the moment, settled, others are in competition awaiting refutation, with replacement sometimes requiring considerable revision across the whole.

Within this framework, learning takes place. Humans, like other animals, are problem-solvers who learn by their mistakes. Because of the neural structuring of their brains, humans have the ability to conceptualise puzzles, generate solutions to questions, and communicate these to one another. How we learn is partly explained genetically and wholly explained materially. Our neural makeup permits us to perform complex theoretical operations and what we theorise about is the material world we inhabit, including our cultural universe. As problem-solvers theorising about our experience, we create a corporeal system for our children to acquire, accept provisionally but challenge where necessary. Insofar as no part of our knowledge is immune from revision, then children as learners, must be introduced to a curriculum which gives them every opportunity to conceptualise problems, generate solutions, grasp the reasons for some things being reasonably reliable and others not, and to be disposed to the Socratic dictum that the unexamined life is not worth living. (For more detailed formulations of this philosophical position, see Clark, 1997; Evers and Lakomski, 1991, 1996, 2000; Walker, 1991).

Although no curriculum, as yet, has been built on a solid theory of holism, an approach to curriculum development which is consistent with the principles of holism, even if not directly driven by Quinean holism, is the Queensland 'New Basics'[1] project. This is underpinned by a framework consisting of the following dimensions (see Figure One), which are no more than briefly outlined for illustrative purposes:
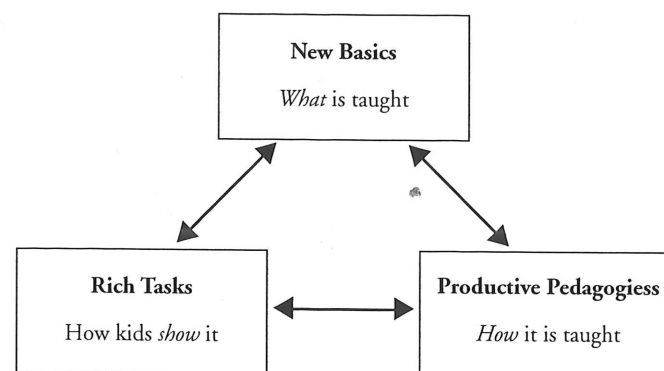

Figure One: Queensland 'New Basics' Project

The three components, new basics, rich tasks and productive pedagogies, need to be considered in turn. (The summarised information presented below is available in more detail from the Education Queensland website).

New Basics

These are centred on four clusters of practices essential for survival in the worlds in which students will live and work:

(1)   Who am I and where am I going? Life pathways and social futures.
(2)   How do I make sense of and communicate with the world? Multiliteracies and communications media.
(3)   What are my rights and responsibilities in communities, cultures and economics? Active citizenship.
(4)   How do I describe, analyse and shape the world around me? Environments and technologies.

Productive Pedagogies

These are classroom strategies used by teachers to focus instruction and improve student outcomes:

(1)   Recognition of difference: to ensure that students know about and value a range of cultures, create positive relationships, respect individuals and help to create a sense of community.
(2)   Connectedness: to ensure that students engage with real, practical or hypothetical problems which connect to the world beyond the classroom, which are not restricted by subject boundaries and which are linked to their prior knowledge.
(3)   Intellectual quality: to ensure that students manipulate information and ideas in ways that transform their meaning and implications, understand their knowledge is not a fixed body of knowledge, and can coherently communicate ideas, concepts, arguments and explanations in rich detail.
(4)   Supportive classroom environment: to ensure that students influence the nature of the activities they undertake, engage seriously in their study, regulate their behaviour, and know of the explicit criteria and high expectations of what they are to achieve.

Rich Tasks

These represent the culmination of student engagement with the curriculum. Rich tasks are activities which are assessable and reportable. They are more than merely something which can be assessed – they are intellectually challenging and have real-world value. A suit of rich tasks is completed in each of the three year spans of years 1 to 3, 4 to 6, 7 to 9, where student work is assessed in terms of the standards that are expected in the latter part of years 3, 6 and 9 (Education Queensland, 2001).

Rather that the curriculum being structured by the adoption of pre-existing pillars of knowledge, a holistic curriculum such as New Basics starts with the most fundamental question of what do students need to know in order to live as adults in communities. This then becomes an issue of problems and solutions and the drawing from our knowledge web to achieve the educational aims. What is to be included in the curriculum becomes a matter of rethinking in original and creative ways that which is of most value for students to learn. Suddenly, the curriculum is opened up to exciting new possibilities not available with existing traditional approaches (Education Queensland, 2001).

The New Basics project has attracted considerable interest amongst some teachers, especially those who have attended courses on its pedagogical approach. It has not escaped the notice of the New Zealand Ministry of Education (2002), where in its *Curriculum Stocktake Report to the Minister of Education*, it stated that (2002: 7):

> Reasons for adopting an approach similar to New Basics include the movement from the industrial age to the knowledge age, where the old order is no longer regarded as sufficient or appropriate. Reasons against adopting an approach similar to New Basics include that the approach may be too far out of step with, or ahead of, schools, parents/whanau and society. Adopting an approach similar to New Basics would represent a radical departure from New Zealand's current curriculum, and as the New Basics has not yet been evaluated, it poses considerable risks.

Political conservatism again prevailed.

Conclusion

The implications of holism and a problem-solving curriculum for schools, and especially teacher education institutions, are profound. If there are no subject demarcations there is no rationale for dividing staff into traditional subject departments nor arranging timetables and courses along similar lines. If the focus is on problems and drawing off all the available resources of the knowledge web to help students examine them and consider various solutions, then how staff organise themselves into groupings and

ACCESS
Critical Perspectives on Communication, Cultural & Policy Studies
Vol. 23 (1) 2004, page 40

ACCESS
Critical Perspectives on Communication, Cultural & Policy Studies
Vol. 23 (1) 2004, page 41

how time is allocated and used will require considerable negotiation, leading to new forms of school organisation and management. Likewise with teacher education, there needs to be a reconceptualisation of how we help our students come to see schools, curriculum, teaching and learning in new and creative ways.

This, then, is the challenge for us all in teacher education: how to shake off the shackles of philosophical naiveté and political conservatism which the Curriculum Framework brings, and embrace holism and the problem-solving curriculum.

I suspect that the conversion will be a difficult one, and probably a struggle to achieve for the very simple reason that most of those involved in teacher education are uncritically committed to maintaining and perpetuating the philosophical naiveté and political conservatism of the Curriculum Framework because it is perceived to be in their best interests to do so.

References

Barrow, R. (1976). *Common Sense and the Curriculum*. London: Allen & Unwin.

Broudy, H. (1962). To Regain Educational Leadership. *Studies in Philosophy of Education, 2*, Spring, 132-157.

Clark, J. (1997). *Educational Research: Philosophy, politics, ethics*. Palmerston North: ERDC Press.

Education Queensland (2001). *New Basics Project*. Available at URL: http://education.qld.govt.au/corporate/newbasics

Evers, C. & Lakomski, G. (1991). *Knowing Educational Administration: Contemporary methodological controversies in educational administration*. Oxford: Pergamon.

Evers, C. & Lakomski, G. (1996). *Exploring Educational Administration: Coherentist applications and critical debates*. Oxford: Pergamon.

Evers, C. & Lakomski, G. (2000). *Doing Educational Administration: A theory of administrative practice*. Oxford: Pergamon.

Hirst, P. (1965). Liberal Education and The Nature of Knowledge. In R. Archambault (Ed.), *Philosophical Analysis and Education* (pp. 113-138). London: Routledge & Kegan Paul.

Hume, D. (1888). *A Treatise on Human Nature*. Oxford: Clarendon Press.

Lyotard, J-F. (1984). *The Postmodern Condition: A report on knowledge* (G. Bennington, & B. Massumi, Trans.). Mineapolis: University of Minnesota Press.

Ministry of Education (1993). *The New Zealand Curriculum Framework*. Wellington: Learning Media.

Ministry of Education (2002). *Curriculum Stocktake Report to the Minister of Education*. Wellington: Learning Media.

O'Connor, D. (1957). *An Introduction to Philosophy of Education*. London: Routledge & Kegan Paul.

Peters, M. (Ed.). (1995). *Education and the Postmodern Condition*. Westport, CT.: Bergin & Garvey.

Peterson, A. (1960). *Arts and Science Sides in the Sixth Form*. Oxford: Oxford University.

Phenix, P. (1964). *The Realms of Meaning*. New York: McGraw Hill.

Quine, W. (1953). *From a Logical Point of View*. Cambridge: Harvard University Press.

Quine, W. (1995). *From Stimulus to Science*. Cambridge: Harvard University Press.

Snook. I. (1990). Contesting the Curriculum: The politics of 'basics' and 'frills'. In J. Codd, R. Harker & R. Nash (Eds.), *Political Issues in New Zealand Education* (pp. 309-319). Palmerston North: Dunmore Press.

Walker, J. (1991). Coherence and Reduction: Implications for educational inquiry. *International Journal of Educational Research*, 15 (6), 505-520.

Wittgenstein, L. (1953). *Philosophical Investigations*. Oxford: Balckwell.

1 The term "New Basics" is not without controversy. It is to be clearly distinguished from calls for "Back to Basics" (Snook, 1990), which is a slogan for a return to a more traditional curriculum in order to restore such basics as grammar, spelling and arithmetic to their central place in the curriculum, having been displaced somewhat by the inclusion of 'frills' in an overcrowded curriculum. New Basics certainly does place emphasis on the basics, in the sense of what is fundamental or essential for the education of young people, but this is merely a formal conceptual point about the meaning of the term "basics". New Basics emphasises that what counts as basic is contestable and its account of what is basic is a long way from that which the "Back to Basics" proponents promote. As the outline of the New Basics curriculum indicates, what is basic is very much defined by preparing children for life as adults in a future society, the nature of which is largely unknown, rather than trying to fit them into a past long gone. So, we should not be bewitched by the term "basic" itself but take it as an opportunity to ask what it is that all children must have if they are to live happy and fruitful lives as adults.