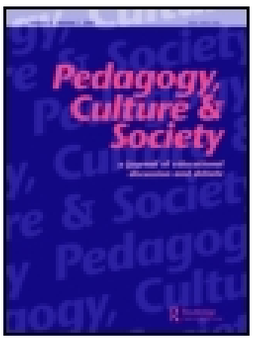

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The Teacher's Role in Curriculum Development: an unresolved issue in English attempts at curriculum reform

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ABSTRACT The paper compares the British curriculum reforms of the 1960s with contemporary government-initiated reforms, and argues that the central problem of pedagogical change persists because the latter adopted one of the two solutions to the problem which emerged from the former; namely, the objectives model of socially engineering change. The other solution, proposed by Lawrence Stenhouse, which views curriculum change as a social experiment in which teachers play a central role, has been neglected. The paper attempts to demonstrate the validity of Stenhouse's contention that there can be no curriculum development without the professional development of teachers as researchers of their own practices in schools and classrooms.

Introduction

Since 1945 schools in the United Kingdom have experienced two giant waves of curriculum reform. The first wave burst through the schools in the 1960s and early 1970s and the second followed it over a decade later in the form of the 1988 Education Reform Act which established the National Curriculum. It is now fashionable to see these two events as radically discontinuous with each other, and underpinned by quite contrary assumptions about the teacher's role. The first wave is often characterised as teacher-initiated and lacking in centralised direction and control. The second was State-initiated and is operationally directed by the State. The intervention of the State in curriculum development is frequently justified in terms of the failure of teachers and their associations to improve educational standards in schools. Indeed

government ministers and the popular press have tended to point to the 1960s reforms as a cause of declining standards. Evidently, the first wave of reform left a sediment of 'progressive' practices in schools – topic-based curricula, mixed-ability classes, small-group teaching, discovery and project learning – which the second wave needs to break up and wash away if standards are to be raised. Moreover, the ideas that inform these practices are believed to stem from educational theorists in universities, who disseminate them through teacher training programmes. Such beliefs explain the increasing tendency of government ministers to avoid much discussion and negotiation with teachers and academic educationists generally about arrangements for implementing National Curriculum requirements in schools. They also explain government attempts to subordinate teacher training to National Curriculum requirements by weakening its higher education base and locating it more in the schools. School-based training is not simply a way of making training more practical, but of ensuring that it becomes the servant of National Curriculum implementation rather than an instrument of subversion and resistance.

Any tendency for government officials charged with implementing the National Curriculum to accommodate the voices of teachers and academic educationists has, until many teachers and schools revolted against the tests for 14-year-olds in 1993, been viewed by ministers as a sign of weakness. Although they were involved and consulted in the construction of the original draft orders for each National Curriculum subject area, they have seen the results of their efforts continually modified by ministers. The trend has been to dissociate the acquisition of knowledge and skills from a consideration of value issues, the uses of inquiry processes, and an understanding of other cultures. Knowledge has been increasingly reduced to information, and skills to techniques for processing it. The direction of the curricular reforms initiated by teachers during the first wave has been rapidly reversed by the State during the second wave.

Stuart MacLure, formerly editor of *The Times Educational Supplement*, recently pointed out (TES, 22 February 1993) this government's tendency to interpret the role of the professionals as a conspiracy against society. Given the political diagnosis of our educational ills in government circles it is inevitable that National Curriculum reform has adopted a confrontational stance towards teachers and other professional educationists. As MacLure (1993) argued the Secretary of State for Education appeared to expect them to "do anything they are told without question, even if it goes against their professional judgment". As a parent, he concluded, "I certainly would not have wanted my children to be taught by compliant teachers with no conscience, nor any ultimate criteria of their own about what is professionally right".

Most of the contention surrounding the implementation of the National Curriculum has revolved around the arrangements for testing children's learning at the various Key Stages outlined in the Reform Act of

1988. The first big row focused on the testing of 7-year-olds. Teachers protested that children of this age were too young to cope with the stress of testing and that it would not produce an accurate and fair picture of their achievements in the circumstances. Those involved in the pilots protested about the extent to which testing intruded on teaching time in classrooms and the generally unmanageable nature of the procedures they were required to follow. In 1993 English teachers protested about government plans to test 14-year-olds at Key Stage 3. They objected to the secrecy and lack of consultation which had surrounded the piloting of the tests, with participating teachers being required to sign confidentiality agreements. (The Key Stage 1 pilot schools made their views public and in doing so won concessions for the rest.) Following the Key Stage 3 pilots, English teachers received an anthology of texts to be used as the basis for testing children's knowledge of literature and concluded that it was contrary to the principles of good teaching. One English teacher acknowledged in a letter to *The Times Educational Supplement* (15 January) that teachers had been involved and consulted during the initial construction of the National Curriculum for English. However, he goes on to argue that its implementation "has been increasingly constrained and manipulated, particularly in matters concerning assessment and testing".

The revolt of English teachers quickly spread into a general revolt against Key Stage 3 National Curriculum testing in the summer of 1993 supported by teachers' unions, school governors and parents' associations. In a 'last ditch' attempt to prevent a boycott the Secretary of State announced a review of National Curriculum and Testing arrangements in which he promised that teachers' concerns would be addressed. While welcoming such a review, headed by Sir Ron Dearing, the newly appointed Chairman of the Schools Curriculum and Assessment Council, the majority of schools and teachers successfully boycotted the tests. In July 1993 the review published an interim report which I shall briefly refer to later.

In its White Paper on Education (1992) the government argued that debate no longer surrounds the principle of a National Curriculum, which teachers now accept, but rather the details of its implementation. The latter tend to be interpreted as mere teething problems. But I would contend that they are more fundamental than that. The teaching profession found National Curriculum development a tolerable process at the planning phase because it appeared to involve a measure of consultation and negotiation, and they were led to believe that teacher assessment would play a major role in assessing pupils' progress for the purposes of both reporting to parents and providing diagnostic feedback to teachers. At the implementation phase the National Curriculum has become more of a straitjacket than a flexible resource because it is being driven by the State as a vehicle for delivering the kind of test information than enables comparisons between schools to be made as a basis for parental choice and the distribution of resources to schools. The vehicle was being stripped down and rebuilt by the government for this purpose

and teachers didn't like it because they knew that increasingly they were being required to teach for the tests. Rather than tests being used to support and validate teachers' judgements about independently defined learning outcomes, they are now being used to define such outcomes and replace the teacher as the agent of assessment. The report to the Task Group on Assessment and Testing (TGAT), under the Chairmanship of Professor Paul Black, recommended a blend of internal teacher assessment and external testing as a basis for providing both diagnostic feedback to teachers and more summative information for parents and the public about children's progress (see DES, 1989). However, testing had at the implementation phase become uncoupled from teacher assessment, with the result that diagnostic assessment for purposes of teaching became dissociated from summative assessment for the purpose of providing public information.

Michael Marland, a London headteacher and renowned educationist, entered the 'testing debate' about Key Sage 3 English by arguing that the problem is not the tests but the uses to which they are put. He cogently represented the professional perspective when he argued that "Tests should not be seen as full pictures; they are limited devices to assist further consideration of the young person's needs" (*The Observer: Schools Report,* 17 January 1993). He made a strong plea for a proper analysis of the use of tests for teaching purposes as a basis for an agreed position between the government and teachers. Any such agreement would reinstate the teacher's voice as an integral part of educational assessment and compromise the government project of using assessment as a device for bringing teachers under the control of the educational consumer. In which case the government will have to revise its views of the teaching profession as a conspiracy against society. To what extent is Sir Ron Dearing's Review contributing to such a revision?

The interim report of the review recommends no fundamental changes in the basic structure of the National Curriculum. It opts for a more slim-line version of what presently exists particularly with respect to reduction in content and time spent on subjects outside the 'core' (maths, English, science), and for greater flexibility at 14-16 to incorporate more vocationally oriented subjects for some students.

It also opts for reducing the amount of testing and therefore the time teachers spend administering tests rather than teaching. The emphasis is placed on more streamlined tests within the core subjects alone, and much is made of giving teacher assessment equal status to test results. Both will be reported to parents and published in school annual reports and prospectuses. Test results will only be reported in aggregated form and not as school performance tables.

The government has already accepted these broad recommendations in a published response (DFE, 1993) to the *Interim Report of the Review* (July 1993). As it claims, the effect will be to substantially improve the "manageability for teachers" of National Curriculum implementation. It will also do something to reduce the

hostility of teachers to tests in terms of their use to make 'unfair' comparison between schools. But it will not change the role of teachers in relation to the curriculum. The attempt remains, albeit by a more 'softly' approach, to de-professionalise teachers to the status of technicians.

In order to revise its view of the teaching profession and its role in National Curriculum reform the government would need to reassess what happened during the first wave of reform. In the rest of this paper I will try to indicate how a more positive account of the teachers' role might be constructed from a study of the earlier reforms.

Curriculum Change: what we should have learned by now

The currently fashionable view that curriculum change in the 1960s was largely teacher-initiated and unplanned is over simplistic but it contains an element of truth. However, there was more centralised intervention than the government is now prepared to admit. In this section I will attempt to analyse the central problems which emerged and argue that some interventions from the 'centre' to address these problems were based on a false set of diagnostic assumptions and therefore only served to perpetuate the problems. What we should have learned from the 1960s is that centralised social engineering does not work when it comes to effecting fundamental change to the quality of learning in schools. What does work was actually discovered during the 1960s and 1970s but remains unacknowledged by politicians and government officials who in the second wave of reform have simply strengthened and toughened up the social engineering model which emerged as central agencies increased their influence during the earlier reforms. Having summarised the argument I shall now expound it in some detail.

In 1976 MacDonald & Walker gave the following account of the origins of the reform movement in England and Wales:

> *In the summer of 1961 a private British charity called the Nuffield Foundation was persuaded to donate some money to a group of teachers who wanted to "do something" about the grammar school science curriculum. The teachers belonged to the Science Masters' Association, one of whose leading members had just come back from a visit to Russia and America – where he had been astonished to find school courses in nuclear physics. The Nuffield Foundation's involvement in the development of new school curricula was soon to become a land mark in the education system. Suddenly, in England and Wales, much of the planning and energy that since the Second World War had been devoted to implementing the Education Act of 1944 was switched to the problem of curriculum obsolescence. Whitehead's dictum 'The rule is absolute – the nation that does not value trained intelligence is doomed' assumed the status of an imperative, and a decade of planned educational change began.*

> *The Nuffield initiative set the wheels of the State turning, and in 1964 a new institution appeared, one that has since become a familiar if still contentious feature in the formal structure of the school system. This was the Schools Council for Curriculum Reform and Examinations. In the space of twelve years the Schools Council has initiated and supported more than 160 projects whose major concern has been to lend speed and quality to the ongoing process of curriculum change in the classroom by centralising the functions of intervention and production. The implicit model of planned change was thus centre – peripheral: innovation is accelerated at the centre, then disseminated to the outposts. (p. 1)*

The representatives of the Science Masters' Association who approached the Nuffield Foundation were seeking to emancipate themselves and their fellow science teachers from the prison of the traditional grammar school syllabus. In this respect the curriculum reform movement of the 1960s was teacher-initiated. Notice the introduction of the term 'curriculum' rather than 'syllabus', suggesting a need to get away from some of the connotations of the latter. The reform movement involved more than an aspiration to change the topics covered on a syllabus. It embodied a different conception of the nature of school knowledge and how it should be taught.

MacDonald & Walker (1976) argued that Nuffield Science

> *can be seen as one stage of a continuing debate in which the tension lies between a view of science as a source of technical knowledge, and a view of science as a contribution to culture ... between science as information and techniques to be learnt, and science as knowledge to be gained by the extension of imagination and understanding. (p. 90)*

They also argued that the debate was not a new one and referred back to the Devonshire report of 1870, which proposed that true science teaching should consist of "habituating the pupil to observe for himself, to reason for himself on what he observes, and to check the conclusions at which he arrives by further observation and experiment" (p. 93). It was this view of science education as the reconstruction of the process of discovery in the classroom rather than the acquisition of inert information which characterised Nuffield Science and spread to other subject areas as the reform movement evolved. It was not simply a movement to change content but involved reconceptualising the nature of school knowledge in a form that rendered questions about content and questions about teaching methods inseparable.

Whereas changes to syllabus content do not require changes in teaching methods, changes in the curriculum do, because the latter constitutes the form in which knowledge is represented by the teacher to the child. The traditional syllabus of the British school was not simply a list of pedagogically neutral content. It represented content in a form that

served the purpose of transmitting information and technical skills to children.

Curricula are representations of knowledge for the purpose of teaching. They are the languages teachers employ to talk about things and events in the world and as such they imply what Bruner (1986) calls "a stance" (p. 125); a point of view about the use of the mind in relation to these things and events. The curriculum, as the language of education, not only refers to things in the world, its content, but also marks the stance the teacher is to adopt towards the use of the child's mind in relation to them. Bruner recalls a statement one of his teachers made in the classroom. She said, "It is a very puzzling thing not that water turns to ice at 32 degrees Fahrenheit, but that it should change from a liquid into a solid". He then recounts how she went on to provide an intuitive account of Brownian movement and of molecules which invited "me to extend my world of wonder to encompass hers. She was not just informing me ... She was a human event, not a transmission device" (p. 126).

The stances to knowledge marked down in curricula either invite teachers to express and extend their powers of understanding in the ways they represent knowledge to children or they imprison teachers as transmission devices which represent knowledge as inert information. The Curriculum Reform movement of the 1960s, at least initially, was as much about teacher development as it was about changing the content of education. It was about changing the ways knowledge was represented in schools to children; not as information to be transmitted but as structures – of ideas, principles and procedures – which support creative and imaginative thinking about human experience. This of course does not necessarily imply changes in content. Knowledge of the same content can be represented in different ways to children, as Bruner's example illustrates; what his teacher did was to adopt a different stance towards it than he had been led to expect from teachers. Nevertheless, changes in the way knowledge is represented by teachers in classrooms has implications for the selection and organisation of content. The 'syllabus' organises large amounts of content around content categories. It enables teachers to transmit large amounts of information in an efficient and orderly way. But when knowledge is represented as structures which support inquiry the traditional syllabus is a quite inappropriate form of content organisation. This mode of representing knowledge is incompatible with a requirement for teachers to cover large amounts of content. It requires a more parsimonious organisation of content around the central questions and problems which define the various disciplines by which human beings have attempted to make sense of their experience.

We can therefore interpret the initial impetus behind the curriculum reforms of the 1960s as an attempt by teachers to develop their professional role in the classroom by reconstructing the curriculum which traditionally shaped their practice. As the most creative curriculum developer of that period, Lawrence Stenhouse proclaims: "No curriculum

development without teacher development". Stenhouse (1975) pointed out that this did not mean "we must train teachers in order to produce a world fit for curricula to live in" (p. 68). The message of the 1960s was that we needed to develop curricula fit for teachers to grow in, because the quality of children's education depends on the quality of the people teaching them. Stenhouse argued that it was the task of the curriculum developer to represent knowledge in a form that "by virtue of their meaningfulness curricula are not simply instructional means to improve teaching but are expressions of ideas to improve teachers" (p. 68).

Such a view stands in marked contrast to the government's present stance on teacher training; namely, that it should equip teachers to implement the requirements of the National Curriculum. For Stenhouse curricula were resources to help teachers reconstruct their view of knowledge and in its light their pedagogical relations with students in classrooms. They provided support for reflective practice rather than a 'straightjacket' into which the practice was required to fit. The phrases 'curriculum planning' and 'curriculum implementation' suggest that the teacher's role is one of conforming their practice to a set of external curricular requirements or plans. 'Curriculum development' on the other hand suggests the continuing reconstruction of the forms in which teachers represent knowledge in classrooms in collaboration with students as they reflect about their teaching. Here the classroom is not so much an implementation site as a laboratory for pedagogical experimentation.

From the teacher-initiated curriculum reforms of the 1960s an idea about the teacher's role in curriculum development emerged in Britain which has subsequently spread throughout the world; namely, that of 'the teacher as researcher'. The idea is usually attributed to Stenhouse (1975, 1980), and he certainly expounded it with enormous eloquence and insight. However, I have argued (Elliott, 1991a, Ch. 1) that what Stenhouse did was to articulate the logic of teacher-initiated curriculum reform. Stenhouse realised more clearly than any other curriculum developer working with teachers that the professional transformation they were trying to accomplish implied a research stance towards their practice. This research stance was not separate from the pedagogical stance that characterised the reform movement of the 1960s. The latter aimed to provide pupils with access to knowledge in a form which supported independent thinking and the growth of understanding. But this required teachers to reconstruct the view of knowledge implicit in their traditional practice and the assumptions it embodied about how knowledge was to be represented to pupils in classrooms. Stenhouse, reflecting on the problems of curriculum reform when he entered the field in the late 1960s, realised that a condition of teachers realising their pedagogical aspirations was that they adopt a research stance towards their practice. This involved reflecting jointly about pedagogical ends and means (the assumptions which underpinned their practice concerning both the

nature of knowledge and the ways of relating that knowledge to the minds of their students).

Stenhouse (1980) wrote about the relationship between information and the mind in the following terms:

> *Of course we need instruction. And textbooks too. The key is that the aim of discovery and discussion is to promote understanding of the nature of the concessions to error that are being made in that part of our teaching where we rely upon instruction or textbooks. The crucial difference is between an educated and an uneducated use of instruction. The educated use of instruction is sceptical, provisional, speculative in temper. The uneducated use mistakes information for knowledge. Information is not knowledge until the factor of error, limitation or crudity in it is appropriately estimated, and it is assimilated to structures of thinking ... which gives us the means of understanding.*

What Stenhouse observed in schools was the inability of 'innovatory' teachers, in spite of their aspiration, to adopt a certain stance towards the information they provided students with. It was transmitted as not open to question, to the reconstruction of its meaning and significance for the issue at stake, and yet teachers expected their students to use it as a basis for judgement. Teachers were unaware that their practice – in spite of all the changes many had made to the organisation of curriculum content and social arrangements in classrooms – was very continuous rather than discontinuous with the traditional curriculum. They persisted in the assumption that information was knowledge while expecting students to use it as a resource for their thinking. The only way they could have changed, to realise a greater consistency between aspirations and practice, would have been to analyse their practice together in the light of systematically gathered evidence.

The so-called progressive methods of the 1960s are now seen by the government in Britain and the right wing generally to be responsible for a 'decline' in educational standards. The kind of stance towards knowledge and its representation which I have referred to as the aspiration of the first wave of curriculum reform was never fundamentally realised on any significant scale. What passes for progressive methods in schools – topic work, small group work, active learning, project work – can all represent surface curricular changes that have been accommodated to traditional ways of representing content to students. For example, topic work is often reduced to children looking up information in books and copying it down in their workbooks quite mindlessly, and active learning methods are often reduced to providing contexts for children to apply information they have received rather than evaluate it. As Alexander et al (1992) pointed out in their government-commissioned report on primary school practice, these so-called progressive methods have become part of the taken-for-granted practice of teachers. It is my contention after 25 years of observing classrooms that they are tacitly employed as methods of

representing information as knowledge and differ only from more didactic methods by making concessions to children's interests. The so-called child-centred nature of these methods treats children's interests as extrinsic motivational hooks on which to hang informational content rather than intrinsic conditions to meaningful learning about content. All meaningful learning in relation to content involves students coming to see the content as intrinsically interesting. Many teachers are unaware of the gulf between their progressive rhetoric and their practice.

It may well be the case that the surface changes in curricular practice I have cited are less effective and economical ways of transmitting information than didactic whole-class teaching. If transmission is how information ought to be handled in schools, then the current Secretary of State for Education is right in his expressed desire to see more didactic teaching returning to the classroom. However, such a view is indicative of how the National Curriculum is being politically reconstructed at the implementation phase. In order to meet the requirements of simple, cheap and unambiguous forms of standardised testing to provide performance indicators to educational consumers the National Curriculum will increasingly redefine content as knowledge to be mastered rather than ideas which support creative and imaginative thinking. If this is so then it cannot represent *educational standards* because such a view of knowledge is now culturally obsolete. In spite of political claims that the implementation of the National Curriculum is raising educational standards I would claim that it cannot if it is reinforcing an uneducational use of instruction, by denying students access to our culture in a form that develops their powers of understanding.

At the early stages of National Curriculum implementation ministers and officials assured teachers that although the government prescribed content in the form of targets and programmes of study linked to them, it left teachers free to select teaching methods. The rhetoric appeared to respect a measure of professional autonomy for classroom teachers. But it is now changing fast. The government is increasingly intervening on questions about appropriate teaching methods for implementing National Curriculum requirements. It is beginning to acknowledge the fact that a curriculum plan which primarily organises informational content as knowledge can only be implemented effectively if it also controls pedagogy. In doing so the government is having to abandon any pretence of safeguarding teachers' professional autonomy.

I have to agree with the government that the curriculum reforms of the 1960s failed to raise educational standards, not because discovery learning methods were responsible but because they were largely unrealised. The solution is not the one provided by the current National Curriculum but the one discovered by Stenhouse towards the end of the 1960s; namely, helping teachers to adopt a research stance towards their practice. Stenhouse designed his Humanities Curriculum as a research programme for teachers. In doing so he was not only aware of the

problems the science education developments encountered in realising their aspirations in practice, but also of the solution being proposed by some to these problems; namely, planning by objectives. Stenhouse believed that the objectives model of curriculum planning being imported from the USA would seriously distort the nature of the knowledge teachers represented to students. This same planning model has now been adopted by the government to design the National Curriculum.

Putting on the Blind-fold: planning by objectives

According to the objectives model rational curriculum planning begins with a specification of educational aims and then proceeds to break them down into behavioural objectives: statements of intended learning outcomes which are sufficiently precise and unambiguous to enable measurement. A programme of curricular content and learning tasks related to it could then be rationally organised in the light of these statements, and criterion-referenced tests developed for assessing the extent to which the intended learning was achieved.

The first systematic use of the objectives model in the context of the British reforms was the Schools Council Science 5-13 project. The majority of primary school teachers had undertaken little advanced study of science and a large-scale curriculum development programme to promote science teaching with pre-secondary school children needed a device for focusing their attention on what scientific learning meant in this context. The objectives model appeared to meet this need. It was also seen as a device for shifting teachers' representations of knowledge towards a discovery mode. Thus we find Hilda Taba (1962), one of the great advocates of discovery learning in the USA, pointing out that since "education does not consist solely of the mastery of content, objectives also serve to clarify the types of powers, mental or otherwise, which need to be developed". The 5-13 project certainly saw its objectives in these terms. They largely referred to the development of children's conceptual powers and inquiry skills through discovery learning. In order to emphasise the use of the model to transcend a "information as knowledge" perspective the proponents of the objectives model often referred to 'process' as well as 'content' objectives. Moreover, the emphasis on the development of conceptual powers led 'rational' curriculum planners to incorporate stage theories of concept learning into their designs. Thus the objectives of Science 5-13 were grouped around Piaget's stages of concept development, giving teachers a vision of 'progression' in learning from one stage of conceptual development to another and helping them to 'match' learning tasks to children's learning needs at each stage.

The following example from 5-13's plan (1972) illustrates the main features of the planning model it adopted. The general curriculum aim was to develop "an inquiring mind and a specific approach to problems". This was then analysed into eight "broad aims" including "developing basic

concepts and logical thinking". The latter was further analysed into more specific objectives organised around four stages of development. Thus the objectives listed for the early stage of concrete operations were:

> *1.33. Ability to predict the effect of certain changes through observation of similar changes.*
> *1.34. Formation of the notions of the horizontal and the vertical.*
> *1.35. Development of concepts of conservation of length and substance.*
> *1.36. Awareness of the meaning of speed and of its relation to distance covered.*

Science 5-13 represents the use of the objectives model as a basis for centralised intervention in the curriculum development process. It emerged at the turn of the decade as the problems of securing curriculum change at the level of classrooms became only too clear to the Schools Council. The project marked a borderline between central support and central control. It was aimed at structuring the ways teachers thought about children's learning in their classrooms. But, at least at the initial stages of implementation, it left teachers to develop the curriculum activities for achieving the objectives. Materials were produced for teachers in the form of ideas and suggestions for appropriate learning activities and ways of organising them in classrooms, but ultimately responsibility for decision-making was theirs. Later it became clear that specifications of objectives and teacher materials were not enough to 'engineer' fundamental change in the ways teachers represented knowledge to pupils, and a supplementary project emerged to prescribe learning tasks and activities. The movement within the framework of the objectives model was towards the construction of a 'teacher-proof' curriculum involving greater centralised intervention in the specification of the programme of study.

There is a remarkable continuity between the use of the objectives model in Science 5-13 and the design of the National Curriculum. The statements of broad aims are similar in form to the 'targets' stated for each subject area. The National Curriculum takes over the idea of 'progression' in learning through developmental levels. Rather than four there are ten levels specified for the National Curriculum, but unlike 5-13 their theoretical basis and rationale is far from clear. Statements of attainment against which progress towards each target can be measured are specified at each of the ten levels. These are very similar in form to the statements of objectives employed in 5-13. Finally, for each National Curriculum target there is a prescribed programme of study in the form of learning tasks linked to attainment levels.

As a device for socially engineering improvements in the quality of teaching and learning in classrooms there are a number of reasons why the planning model adopted by the government cannot work. These were well argued and documented in the educational change literature of the 1960s and 1970s, but politicians have failed to listen to them because the

model is highly consistent with the social market ideology which dominates political thinking in the West. It lends itself to a view of schools as production–consumption systems where knowledge is 'manufactured' as a commodity children are entitled to possess as an individual right, and which their parents, cast in the role of surrogate consumers, have the right to choose on the basis of test results. Conceived as a standards specification for a manufacturing system the National Curriculum offers the promise of providing a simple, straightforward and unambiguous basis for consumer choice.

Let us revisit the critique of the objectives model as a central planning device which emerged from the first wave of reform. Firstly, we have the powerful argument employed by Stenhouse (1975) that it distorts the nature of knowledge. Although it is true that the model is often employed to emphasise the importance of developing children's powers of understanding in terms of concepts and inquiry skills, the way it does this carries forward many of the assumptions embedded in traditional ways of representing knowledge. Concepts for example are treated as having unambiguous and precise meanings. Their meaning is not something that is open to question. Children either understand or misunderstand a concept and this can easily be assessed by observing how it is used. According to Stenhouse, however, concepts are not so much objects of mastery as a focus for speculation. Within any discipline of inquiry the key ideas which structure thinking are intrinsically problematic and open to a variety of interpretations. Disagreements about facts cannot simply be explained in terms of insufficient evidence, because people may disagree on what is to count as evidence, i.e. in their understanding of concepts. Thus historians may disagree over the causes of a past event, not because they lack sufficient evidence to resolve the issue but because they have different understandings of the concept of historical causality, and these differences can be linked to personal values which inevitably bias and condition all human thought.

From Stenhouse's point of view teaching children to learn through discovery involves inducting them into various forms of social discourse which have evolved in our culture to address significant questions about our experience of the natural and social environment. Education becomes an induction into ways of discussing these questions. For Stenhouse discovery learning is not a matter of getting children to reconstruct for themselves the precise and unambiguous ideas which are falsely assumed to underpin a 'knowledge of the facts'. Such a view of discovery learning, reinforced by the objectives model, ultimately subordinates the aim of developing the powers of understanding to the aim of acquiring certain and indubitable knowledge. It becomes a subtle means of representing information as knowledge. This became very clear when teachers experienced what became known as 'the discovery teacher's' dilemma on a large scale. What were they to do when the children adopted a different line of thought to the one which generated the correct answer? Should they simply tell the child? My response is "why not? If what you want from

the child is right answers then informing them may be a more effective and efficient means of getting them than discovery learning".

In reinforcing the view of concept learning I have described, the objectives model constitutes a misrepresentation of knowledge, because within our culture we now understand all knowledge to be provisional and open to question. The objectives model was first employed in both the USA and UK in planning science curricula, and became more problematic as curriculum reform spread into the arts and humanities. However, it is now increasingly clear from historical and philosophical inquiry into the nature of scientific discovery, that the positivist account of science which has underpinned the development of science education in schools is now culturally, if not politically, obsolete.

The second reason for rejecting the objectives model of curriculum planning lies in its view of learning as a highly individualistic activity. Children are assumed to make progress in learning as isolated individuals who relate only to a sequence of pre-structured tasks mediated by a teacher. The model reinforces an individualistic theory of discovery learning which is quite contrary to Stenhouse's view of learning as a process of induction into the various ways of discussing human experience which have evolved in our culture. But it is highly consistent with the ideology of possessive individualism which underpins a production–consumption model of schooling.

Increasingly, we find contemporary learning theorists following on from Stenhouse the curriculum theorist, in emphasising the social aspects of learning and the educational significance of reflective discussion in schools. Thus we find Bruner (1986, p. 127) giving the following account of the development of his own theory of learning:

> *Some years ago I wrote some very insistent articles about the importance of discovery learning – learning on one's own, or as Piaget put it later (and I think better), learning by inventing. What I am proposing here is an extension of that idea, or better, a completion. My model of the child in those days was very much in the tradition of the solo child mastering the world by representing it to himself in his own terms. In the intervening years I have come increasingly to recognise that most learning in most settings is a communal activity, a sharing of the culture. It is not just that the child must make his knowledge his own, but that he must make it his own in a community of those who share his sense of belonging to a culture. It is this which leads me to emphasise not only discovery and invention but the importance of negotiating and sharing – in a word, of joint culture creating as an object of schooling and as an appropriate step en route to becoming a member of the adult society in which one lives out one's life.*

For Bruner culture is being constantly created in the 'forums' which enable participants in a culture to reflectively distance themselves from their presumed knowledge, to look at things from different points of view,

and construct new visions of the world. The educational implications of this view of culture closely follow those argued by Stenhouse. For Bruner education as an induction into culture must "also partake of the spirit of a forum, of negotiation, of the recreating of meaning". He is aware, as Stenhouse was, that such a conclusion "runs counter to traditions of pedagogy that derive from another time, another interpretation of culture, another conception of authority – one that looked at the process of education as a transmission of knowledge and values by those who knew more to those who knew less and knew it less expertly". He is critical of the presumption that learning follows a hierarchical sequence towards the achievement of more and more abstract knowledge: a presumption that underpins most curricula planned by objectives including the National Curriculum in England and Wales. Instead he offers an alternative account of the development of mind by reflecting about shifts in his own understanding of Shakespeare's play *Othello*. It is not that he now understands the play more abstractly than when he first encountered it as an adolescent, or that he knows more about the human emotions – pride, envy, and jealousy – that motivate the characters in the play. The play is not a statement about the human condition through the telling of a story, but rather the way the story is told – its language and craft – "makes the drama reverberate in our reflection". It is, Bruner argues, an invitation for us "to reflect about manners, morals, and the human condition". Such reflection is not abstract thought in the usual sense, but rather gives one "a sense of the complexities that can occur in narratives of human action" (Bruner, 1986, p. 128).

For Bruner, progress in learning is not primarily a matter of reaching higher and higher levels of abstract thought, although this may be involved, he argues, in physics and algebra. Even in these areas the growth of understanding is indicated, not by an increasing capacity to master the "uncontaminated language of fact and 'objectivity'", but by shifts in the stance the learner adopts towards the content s(he) is presented with. In fostering such development in the form of understanding Bruner argues that the educational process "must express stance and must invite counter-stance and in the process leave space for reflection, for metacognition". It is this process "of objectifying in language or image what one has thought and then turning around on it and reconsidering it", that permits the learner to reach higher ground (Bruner, 1986, p. 129).

Only if the school curriculum permits students to reach this higher ground where they become, in Bruner's words, "an agent of knowledge making as well as a recipient of knowledge transmission", will they be able to take responsibility as adults for developing the culture which shapes their lives. The implementation of a National Curriculum constructed through an objectives model and representing knowledge as non-problematic, as an individual rather than social achievement, and as something acquired by progressively moving through higher and higher levels of abstraction, will suppress rather than enhance the intellectual

development of the majority of children in our schools. As a vision of what is involved in providing the mass of the citizenry with equality of educational opportunity it is seriously flawed.

Moreover, politicians in Britain have not yet begun to see a problem of implementation that is already beginning to emerge. Crime and violence amongst schoolchildren has become a major social issue, and people are attributing responsibility to the breakdown of family and community life. For some this breakdown is attributed to political policies which cast citizens entirely in the role of possessive and acquisitive consumers of social goods and services. It is being suggested that such policies are destructive to the development of a sense of community in the young. What yet has to be appreciated is that our National Curriculum framework constitutes a denial of the social being of children in favour of turning them into possessive individuals. This is the 'hidden curriculum' in our National Curriculum. As such implementation will only reinforce the social alienation of children because it denies them developing a sense of what it means to participate with others in the construction of shared values and beliefs. Indeed our National Curriculum threatens to undermine the culture itself, by transforming its elements into commodities which can be individually possessed rather than viewing them as common goods which bind individuals together.

The third reason for rejecting the objectives model is that it is an engineering model of change. The engineer designs a system which will fulfil certain precise functions or goals, and then supervises its implementation. The plan enables the engineer to control the process of development by communicating his/her requirements to the workforce, and providing criteria for monitoring and supervising progress. The objectives model implies what Donald Schon, in *Beyond the Stable State* (1971), calls a centre–periphery system of social change. It is particularly attractive to those governments who cast their role in society in the form of the engineering metaphor. The problem with the objectives model is that it fails to take into account the complexities of human action and interaction in society. It 'blindfolds' the State to the complexity of the society it governs.

In the context of curriculum change Stenhouse (1975, pp. 77-78) argued that "the objectives formula sidetracks and blurs the ethical and political problems associated with the control of education", and ignores the concrete experience of teachers in schools. It pre-empts discussion, for example, of such questions as: can quality in education be defined in terms of common standards when the practical experience of many teachers suggests that the highest achievements of children are very individual? Or, can educational events and effects be predicted when the experience of teachers suggests that "our classes and teaching vary from year to year and in nominally similar classes in any one year"? Another way of putting this is to say that the beliefs which underpin and define the objectives model, and indeed the very notion of 'centrally engineered' curriculum change, contradicts the values and beliefs which define the

occupational culture of teachers. When such contradictions become apparent to those responsible for engineering change the model offers them no strategy for handling them other than coercion, and although such strategies may shift behaviour they are very ineffective in accomplishing attitude changes.

Schon argued that centre–periphery systems are prone to failure because the demands made on the centre by the periphery invariably outstrip its capacity to manage an appropriate supply of resources, money and manpower, to meet them. It also outstrips its capacity to stimulate and manage feedback from the periphery. In these circumstances the centre tends to compensate by flooding the periphery with large quantities of information. Lacking adequate feedback mechanisms it tends to misinterpret resistance at the periphery as a problem of communication. According to Schon centre–periphery systems for delivering social change are characterised by exhaustion, overload and mismanagement at the centre. And I would argue that as these reach crisis proportions the centre's response becomes increasingly coercive, invoking in many contexts an aggressive counter-response from the periphery.

The objectives model of planning reinforces the view that implementation problems can be resolved through increasing the flow of information from the centre. It encourages the presumption that if things are not going according to plan it is because the people at the periphery do not understand the plan. Once they understand if they will simply do what is required. And when flooding the system with more and more information does not work the centre responds by increasing its direct interventions in the socio-cultural context of action at the periphery. Such interventions will involve attempting to secure behavioural conformity to the plan. The assumptions built into the plan continue to blindfold the centre by preventing it from understanding why those at the periphery adopt certain values and beliefs as guides to practice. When judged non-reflectively in the light of these assumptions the culture at the periphery is simply wrong.

A very good example of the blindfolding effects of the objectives model is provided by a recent report (1993) on the implementation of the National Curriculum in primary schools, drawn up by the National Curriculum Council for the Secretary of State for Education. It draws on a range of evaluation findings that suggest teachers have the following concerns:

1. The curriculum is proving to be unmanageable, too complex and over-prescriptive (with 450 statements of attainment alone for stages 1 and 2, and 39 end of stage statements).
2. Depth is being sacrificed for breadth of learning.
3. Teachers feel they do not know enough to handle all the prescribed content, especially in science and technology.
4. Adequate resources (e.g. texts) are not available to support teaching in some subjects.

5. Adequate conditions in schools, such as lack of non-contact time and a class-based teaching system which requires each teacher to teach all nine National Curriculum subjects to their class, pose significant problems.
6. The arrangements for testing and assessment are impacting negatively on curriculum decisions and seriously reducing the amount of teaching time in schools.
7. The government is attempting to implement the curriculum too hastily.

The report interprets some of these concerns – speed of implementation, the lack of resources, and feelings of inadequacy about subject knowledge – as mere teething problems which will diminish with time. Whether teachers see them in these terms is not at all clear. One could argue that such problems are inevitable consequences of a centre–periphery system of change; namely, that it necessarily underestimates timescales, levels of resourcing, and the degree of competence required to achieve meaningful change. In my view they are unlikely to significantly diminish. What the report focuses on as more fundamental is the concern about the manageability of the curriculum content and the issue of depth in the quality of teaching. But it provides no decent analyses of the nature of these concerns from the standpoint of teachers. For example, is the problem of content overload understood by teachers as one of having too many targets and statements of attainment, or is it due to the fact that in classrooms such statements are inadequate as criteria for selecting content? We are not told. Blindfolded by the assumptions which underpin the planning model, the National Curriculum Council proposes a solution in terms of a reduction in the number of objectives to be covered to "the essentials", whatever that might mean.

Again, is the issue of breadth rather than depth in learning, one that can be resolved by slimming down the number of objectives and getting teachers to reorganise their classrooms so that the only function provided for is the achievement of these objectives?; e.g. by more subject-based whole-class teaching, more setting of children according to ability, and less topic-based teaching in small groups. Learning, as the social activity of constructing and reconstructing understanding is not a concept such proposals acknowledge, because the planning model excludes it, but teachers' expressions of concern over quality rather than depth may well be grounded in something like this view of learning. The report displays some awareness of this concept at work in teachers' resistance to giving up topic-based curricula, mixed-ability teaching and learning in groups. But such approaches are summarily rejected as non-rigorous and intellectually unchallenging. Arguments teachers might put to show why this is not necessarily the case are presumed not to exist.

In possibly misrepresenting many teachers' expressed concerns about the implementation process the National Curriculum Council report recommends forms of intervention in the organisation and process of teaching and learning that are unlikely to effect improvements in the

quality of education. This is because such interventions will not shift attitudes although they may effect surface structural and behavioural changes. The report identifies teacher culture as a problem for curriculum change at the level of practice, but fails to recognise that cultural change can only occur in the context of a reflective dialogue about practice: a dialogue shaped by the willingness of both parties to render the assumptions which underpin their respective practices problematic. This kind of dialogue between government and teachers, however, is impossible when the former interprets its role as a change agent in terms of social engineering and blueprint planning by objectives.

Beyond Social Engineering: a vision of curriculum reform as a social experiment

How do we get out of the impasse which the experience of two waves of curriculum reform in the UK should have taught us we are in. Neither teacher-driven or State-driven change appears to work. My own answer is that we must adopt a third option, described by David Marquand (1988, Ch. 8), an ex-politician turned political theorist, as the negotiated adjustment of society. A 'negotiated' national curriculum would be continuously constructed and reconstructed in an interlocking network of local (school level), regional (local government level) and national forums. At each level representatives of functional groups in our society – teachers, parents, employers, employees – and of appropriate levels of government, would share and negotiate in dialogue their respective visions of educational aims and processes, and attempt to translate the common understandings which emerge into forms of practice that leave room for further debate.

On this view teachers and schools are accountable to regional and national forums in which the citizenry endorse, examine and evaluate curriculum change proposals and in the process educate each other about education. It is the kind of political process which Marquand calls "mutual education". As such it reflects the educational theories of Stenhouse and Bruner. Curriculum development becomes the process by which the citizenry together create and re-create an educational culture to support their deliberations about what it means to induct children into the culture of the society. Viewed in this light national curricula are designs for an experiment in education to be carried out by teachers.

In our attempts to understand what a curriculum conceived as a social experiment might look like we would do well to reach back over two decades to examine afresh Stenhouse's practical response to the impasse, apparent even then, between teacher-driven and socially engineered curriculum change; namely, the Humanities Curriculum Project.

Stenhouse (1975, Ch. 7) appealed to different sectors and groups in society in creating a Humanities Curriculum for young adolescents about to enter into adult roles and responsibilities as citizens. He posed the problem of how controversial moral, social and political issues within the

society could be handled in an educationally worthwhile way in schools. In doing so he placed himself in the positions of parents, teachers and children belonging to various social groups that held different points of view on such issues. For example, he felt that a military parent might reasonably object to a teacher promoting pacifism in the classroom, while a pacifist one might equally reasonably object to a teacher promoting the idea of a just war. The solution he proposed was one he felt they could agree to accept; namely to induct students into the discussions of such issues within our pluralistic culture. He rejected the idea that the solution was to avoid handling value issues in the school curriculum which, I have argued, is the position of our National Curriculum (see Elliott, 1994).

Having, in imagination if not in reality, consulted society, Stenhouse proceeded, not to formulate aims and objectives, but to use the criterion that controversial value issues should be taught in schools as a basis for mapping out curriculum content. He proposed that controversial social situations and human acts could be grouped into such categories as 'War and Society', 'Law and Order', 'People and Work', 'Poverty', 'Relationships between the Sexes', 'Education' and 'Living in Cities'. The idea was to select products from the culture – poetry, literature, film, photographs, historical writing, works of art, research accounts from the behavioural sciences – which represented a diversity of points of view on these situations and activities. Stenhouse wanted teachers to play an active role in selecting such cultural artefacts but given limitations of time and resources he asked his team to produce a foundation archive which teachers and students could begin to use, and subsequently extend.

After the content had been basically mapped Stenhouse proceeded to formulate an aim for using it in classrooms. It provided a vision of the purpose of humanities teaching as a whole rather than a map of objectives for specific subjects as the National Curriculum Council 20 years later proceeded to do. Many teachers are now arguing that the National Curriculum fails to provide them with a coherent view of the whole curriculum. Stenhouse proposed that the overarching aim for humanities teaching should be "to develop an understanding of social situations and human acts and of the controversial value issues which they raise" (1975, p. 93).

He pointed out two important implications of this aim:

> *First, it is implied that both students and teachers develop understanding, that is, the teacher is cast in the role of a learner. Second, understanding is chosen as an aim because it cannot be achieved. Understanding can always be deepened. Moreover, there must always be dispute as to what constitutes a valid understanding. The teacher and the group have to expect as part of their task an exploration of the nature of understanding. (1975, p. 94)*

From the evidence cited earlier that the National Curriculum is making teachers feel intellectually inadequate it is clear that what is meant by

understanding in the statements of attainment is very different from what Stenhouse meant. Indeed it is different from what Bruner meant when he designed, at about the same time, a behavioural science curriculum for 10- to 12-year-olds in the American elementary school, entitled 'Man: a course of study' (1970). Although it was about teaching the concepts of the behavioural sciences – life-cycle, social organisation, structure and function, innate and learned behaviour, etc. – Bruner like Stenhouse saw concepts and ideas as resources to support reflective thinking about one's own experience and there was therefore no reason why teachers should presume mastery of them before introducing them to children. They should cast themselves in the role of senior learners alongside their students. It is only when ideas are misrepresented as objectives, as objects of mastery, that teachers are made to feel guilty and inadequate about their lack of understanding.

For Stenhouse, to analyse 'understanding' as a set of knowledge objectives would misrepresent the nature of evidence in the humanities for it invited reflection and discussion about one's own views of the human condition, rather than the drawing of fixed and certain conclusions. In other words it suggested not so much a learning outcome as a learning process and a stance for teachers to adopt in relation to it. This is why Stenhouse proceeded to analyse the aim in terms of pedagogical principles governing the teacher's stance in handling evidence in the humanities, as opposed to objectives. Following the philosopher R. S. Peters (1966), he argued that aims like 'understanding' were ideas which embodied values about what constituted an *educationally worthwhile* learning process and that from them one could derive a logically consistent set of principles of procedure which defined the teachers' stance to content. Stenhouse specified the following principles for the study of controversial value issues within the humanities.

> *1. That controversial value issues should be taught in schools;*
> *2. That discussion rather than instruction should be at the core of the learning process;*
> *3. That divergent views should be respected and minority opinions protected;*
> *4. That teachers should refrain from using their authority position in classrooms to promote their own views;*
> *5. That teachers should accept responsibility for critical standards in discussion.*

Given their similar vision of education it should not be surprising to learn that across the Atlantic during the same period Bruner had also specified the teacher's stance in relation to content for Man: a course of study (1970). The content was selected to enable 10- to 12-year-old children explore three questions:

- What is human about human beings?
- How did they get that way?

- How can they be made more so?

It consisted of high quality observational evidence on film of the behaviour of the Pacific Salmon, the Herring Gull, the Baboon and the Netsilik Eskimo. In relation to this evidence children were continually invited to explore their response to it in the light of the conceptual framework of the course. In order to safeguard against the possibility of teachers treating this framework as a set of objectives rather than a resource for reflection, principles of procedure, called 'pedagogical aims', were devised to define their basic stance in the classroom, namely:

> *1. To initiate and develop in youngsters (10-12 years) a process of question-posing (the inquiry method);*
> *2. To teach a research methodology where children can look for information to answer questions they have raised and use the framework developed in the course (e.g. the concept of life cycle) and apply it to new areas;*
> *3. To help youngsters develop the ability to use a variety of first-hand sources as evidence from which to develop hypotheses and draw conclusions;*
> *4. To conduct classroom discussions in which youngsters learn to listen to others as well as to express their own views;*
> *5. To legitimate the search; that is, to give sanction and support to open-ended discussion where definitive answers to many questions are not found;*
> *6. To create a new role for the teacher, in which he becomes a resource rather than an authority.*

The similarities between the procedural principles of Stenhouse and Bruner are marked. Both curricula represent what Stenhouse called the process model of design in contrast to design by objectives. It is a model our National Curriculum planners ignored, and yet as a model of curriculum design it promises to offer a coherent vision of the whole curriculum through a specification of the educational aims and principles which ought to govern the handling of information in classrooms. Moreover, it leaves a great deal of space for the professional judgement and decisions of teachers. The aims and principles of procedure provide teachers with an orientation in the classroom without prescribing their concrete behaviour. They invite reflection about their meaning and significance for practice, and can only be realised on this basis. Stenhouse grasped this implication better than Bruner. He viewed his curriculum design not as a plan to be implemented by teachers, but as a research specification to support reflective teaching. The Humanities Project, argued Stenhouse, encapsulated a theory about the relationship between knowledge, teaching and learning for teachers to test in the laboratory of their classrooms, and for society to examine in the light of the experiment. He expected teachers not simply to realise the theory in practice but also to reconstruct it through the study of practice.

During the pilot phase of the Humanities Project, Stenhouse asked teachers to regularly tape-record and analyse episodes from discussions. They were encouraged to look at their actions and interactions with students in terms of their consistency/inconsistency with the procedural principles. Recordings were sent to members of the central team (of which I was a member) and we also analysed them, feeding such analyses back to teachers to compare with their own and making follow-up visits for observation and discussion. During our visits we frequently held tape-recorded interviews with students to elicit their self-understandings of their classroom experiences and their interpretations of teacher behaviour. With their permission the interviews were released to teachers.

The research strategy that evolved came to be known as triangulation or 'looking at evidence from different angles'. Observational evidence was recorded and the teacher analysed it by looking for patterns of action and interaction. S(he) would then compare the analysis with accounts provided by central team members and/or peers, and by students. Teachers were generally encouraged to discuss divergent interpretations with peers and students.

As this collaborative research process progressed (see Elliott, 1991a, pp. 15-29) the central team members and participating teachers were able to identify problematic patterns of teacher action and interaction that generalised to a very significant degree across classrooms and schools. The teachers were asked for an experimental period to replace such practices with alternative action-strategies that appeared to be more consistent with the procedural principles, and to monitor their effects in the classroom using the same triangulation strategies as before. For example, teachers were asked to replace the widespread habit of asking students if they agreed with a point of view (and commonly interpreted by the latter as pressurising them to agree), by asking if anyone disagreed with it. Teachers were asked to make these changes on the basis of an analysis of teaching which they had collaborated in, not as authoritative prescriptions from on high, but as experimental action-hypotheses to test over a certain time period and to be further modified in the light of evidence. The experiment had dramatic effects on the quality of discussion and students' contributions to it in many classrooms.

Following the pilot experiment the project moved into a period of national dissemination. It not only disseminated its teaching materials and an account of the pedagogical rationale which underpinned their selection and use, but through practical workshops all over the country it introduced teachers and schools to the action-research methodology it had developed to support pedagogical change in classrooms, and to the significant questions that needed to be addressed in realising such change. The project produced a self-training manual to assist teachers to study their own teaching (1970). It not only outlined a research strategy for gathering and analysing data but in the light of the pilot experiment posed a list of questions to ask in relation to those data.

The curriculum, as Stenhouse conceived it, specified not only content, aims and pedagogical principles, but also an action-research programme to support teacher reflection and discussion about the aims and principles and the problems of realising them in forms of appropriate action. Through action-research in the context of the process model, pedagogical aims and methods constitute joint objects of reflection. Teachers are involved in a reflective process of reconstructing not only their methods but also the vision of education that underpins them. Such involvement provides the key to resolving the problem which has beset both teacher-driven and state-driven change; namely, of transforming the professional culture that shapes practice.

However, Stenhouse was only too aware that the traditional ways of representing knowledge in classrooms are reinforced by schools as organisational systems. Realising that it was difficult for teachers to critique the constraints of 'the system' on their capacity to change classrooms he appointed a schools study officer, Barry MacDonald, to set the problems of classroom change in a broader institutional context. MacDonald embarked on a series of case studies of schools in a search to understand the institutional conditions that supported and constrained pedagogical change in classrooms. He became aware of the ways in which the expectations of external groups in the wider society – parents, employers and policy-makers – influenced these conditions and decided that they needed better information against which to judge the problems and potential of curriculum innovations like the Humanities Project. He gathered data about their perceptions and judgements of the Humanities Project, and from them identified issues which were then explored in the school case studies. The idea was to provide the various interest groups with a database to inform intelligent public discussion with schools and teachers about the problems and potential of curriculum change proposals. It was an idea that MacDonald (1974) further developed in his model of democratic evaluation.

It is not difficult to see the connection between MacDonald's evaluation model and Marquand's idea of politics as a form of mutual education. This form of evaluation constitutes a political process which enables different agencies and groups in society to share, discuss, test and renegotiate their visions of education in dialogue with the teaching profession. Educational action-research is the complementary activity of enabling teachers to participate fully, confidently and openly in this dialogue.

The Humanities Project played a major role in constructing the cultural resources we need to develop an alternative vision of a national curriculum. It is a curriculum where both discipline-based and interdisciplinary content will be selected by society in terms of its relevance to the great debates that have occurred and recur in different forms within our culture. It is a curriculum that will induct children into those debates in a way that enables them to make sense of their experience of the world together, and in doing so to play their part in

re-creating our culture. It is a curriculum that will be open to the professional judgement of teachers and support the development of their capacities for judgement. Over the last 20 years action-research, as an approach to teacher professional development, has been an integral component of many higher education and local government-based part-time courses for teachers, and has influenced the professional culture in many schools through the development over time of a 'critical mass' of reflective practitioners. Finally, it is a curriculum designed to yield public information about the quality of processes and procedures in schools: conceived in terms of their consistency with educational aims and values rather than their productivity in generating predetermined learning outcomes.

This in no way implies that the quality of learning outcomes cannot be assessed in such a curriculum context. But the assessment of learning is an intrinsic part of teaching, and cannot be divorced from it without distorting the process of education. That teachers should take responsibility for critical standards in the classroom was a key pedagogical principle of the Humanities Project. For Stenhouse (1975) such standards did not predict outcomes by standardising them, but consisted of criteria for responding critically to students' thinking as it unfolded and manifested itself in often unanticipated ways within their work. He wrote:

> *The worthwhile activity in which teacher and students are engaged has standards and criteria immanent in it and the task of appraisal is that of improving students' capacity to work to such criteria by critical reaction to work done. In this sense assessment is about the teaching of self-assessment. (1975, Ch. 7, p. 95)*

Our current National Curriculum distinguishes teachers' formative assessments from summative assessment for public consumption in the form of standardised test results. This has evidently happened because teacher assessments were deemed to be too variable and therefore untrustworthy. Here lies the heart of the problem. Testing implies not trusting teachers. Stenhouse recognised the same problem when he argued that critical assessment implies complex and difficult judgements, and therefore exposes the strengths and weaknesses of teachers. Students want criticism against criteria when they trust their teachers, he argued, and marking against objectives when they do not (1975, Ch. 7, p. 95). Our National Curriculum and Assessment system can be sympathetically portrayed as our government's attempt to protect children from weak teachers. Stenhouse simply proposed an alternative solution to the problem by designing a curriculum to develop teachers as reflective professionals. Both alternatives – the objectives and process models of curriculum design – emerged as solutions to the problems of poor teaching during the first wave of curriculum reform. Twenty years later the UK government opted for one of them. As a basis for national curriculum design the other solution awaits the time when our society is

prepared to risk seeing education as an experiment for developing teachers.

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