

# Chapter 3: Education and the Concept of Knowledge: Implications for the Curriculum and Leadership

DAVID N. ASPIN

*Professor of Education, Monash University Melbourne*

## INTRODUCTION: THE DESIGN AND IMPLEMENTATION OF REFORMS CONCEIVED TO ACHIEVE THE GOALS OF SCHOOLING

Evidence from studies undertaken on behalf of the Organisation for Economic Co-Operation and Development (OECD) suggests that across the OECD, no matter what the approach to the process of change, no-one can doubt the over-riding importance attached in current reform efforts to matters of teaching, learning and the curriculum. Of vital importance in this respect is the debate regarding what constitutes appropriate curriculum knowledge:

- what counts as knowledge; how knowledge should be conceived; how knowledge should be established and certified;
- how it should be acquired and employed in a society in which knowledge itself is continually changing and expanding;

These epistemological issues, in association with considerations drawn from the psychology of learning, the sociology and anthropology of school as a social institution, and the values - both individual and social - attaching to and embodied in the institution of schooling by the society in which it is located, must clearly occupy a central place in discussion about the effective development of schools across the international arena both during the 1990s and into the next century.

## AN OVERVIEW OF THE CHAPTER

It is widely agreed that, among the principal means by which a quality schooling can be planned, delivered and assured, the curriculum must stand as one of the main forces determining such quality (Aspin and Chapman 1994). I take as my prime ground here the notion that education is centrally, *though not exclusively*, concerned with the induction

of young people into knowledge and understanding. This is taken to require their introduction to and increasing capability in the various ways and means of gaining, communicating and applying knowledge, and ensuring their commitment to its cultivation, pursuit and utilisation. This will give them the requisite repertoire of cognitive substance and skilled procedures by which they may carry forward their own learning by the intelligent and informed solving of problems. It is argued that quality schooling will have been achieved if young people emerge at the end of their period of formal education as having successfully gained expertise in and mastery of a number of cognitive competences and achievements, and having become bearers of a number of valued attributes, competences and patterns of behaviour by which they are enabled to function in an increasingly complex world.

In this chapter I consider the crucial educational question of how various conceptions of knowledge, intellectual traditions and cognitive and cultural values impact on educational institutions. I look at the ways in which the adoption of such conceptions of knowledge influences the structuring of curriculum and the selection of curriculum content. I refer to the curriculum policies adopted by those countries and systems that link education with national economic growth and development; adumbrate the aims and purposes of those educators and politicians who argue for an 'entitlement' curriculum; and examine the approaches of those who see education as the prime focus for initiating and developing the life of intelligence and the rational mind. The curriculum implications of these approaches are set out, and contrasted with the curriculum consequences derived from a post-empiricist pragmatic approach to the construction of educational curricula. The implications of the selection of one or other of these approaches for the education of principals and other educational leaders are identified.

A number of different conceptions of knowledge are examined. The first is the epistemology advanced in the *Republic* of Plato, in which the education of the state's leaders is linked directly with their guided progression towards the highest element of a hierarchical gradation of cognition and learning, which clearly distinguishes between Belief and Knowledge. This 'absolutist' conception is contrasted with that of relativists of various kinds, for whom the measure of the reality and cognisability of anything is a function of people's personal reaction to and subjective judgment of it; truth is nothing but personal ideology; and knowledge adds up to little more than belief, opinion, bias and even prejudice. On such a conception the cognitive function of education is concerned with instruction into the mechanics of power and persua-

sion: since all knowledge is the same, what matters ultimately is who shall have greatest access to and use of power; authority is not cognitive but autocratic and ultimately authoritarian.

Both models are rejected: one on the ground of its absolutist and *a priori* character, the other on the ground of its irredeemable subjectivity which leads ultimately to solipsism. A well-known version of a third view is then set out. It purports to emanate from the writings of Wittgenstein on rationality, forms of life, universes of discourse and language games (Wittgenstein 1953); these notions are given greatest expression in the writings of P.H. Hirst (Hirst 1973) on knowledge and what it is to have a rational mind. From these a curriculum appropriate for a general liberal education may be readily constructed. For Hirst and his like a curriculum for the education of the rational mind consists in immersion in all those various ways of knowing and experiencing that together make up our community's characteristic 'form of life'; insofar as educands succeed in mastering those forms of understanding, upon the illuminations provided by which they must draw in addressing the theoretical and practical issues and problems they face, so far will they be more likely to be efficient and effective in dealing with the exigencies of daily life.

Some criticisms are offered against all these views, on grounds based upon recent post-empiricist work in epistemology. Reference is made to some subjectivist/relativist/ethnocentric accounts of knowledge and truth, and their implications for curriculum planning, are discussed; their claims to serious consideration are rejected on grounds of the incorrigible solipsism to which their claims may be quickly reduced. The very proposing of such views must take place *via* the canons, categories and criteria of public language and this consideration rapidly leads to the conclusion that such views either rest on a fundamental contradiction or are themselves incoherent.

Two lines of productive thinking are then explored. The first derives from the post-empiricist epistemic coherentism developed by Quine (cf Quine 1951, 1969; Quine and Ullian 1972) and his followers. This starts from the premise that philosophy is not so much an activity of conceptual analysis and clarification, which 'leaves everything as it is' - an essentially conservative position; rather it sees any kind of science as an activity of theory comparison, criticism and correction, on the road to a better understanding of phenomena and the strengthened capacity to predict and therefore plan for the future. Education, on this view, becomes a matter of helping younger people build their theories of language-and-the-world, to develop better theories of reality, and to

develop the apparatus to respond with greater intelligence and superior theoretic resources to the demands of both present and future.

The other line is developed from the philosophy of Karl Popper (Popper 1949, 1961, 1972); here knowledge is seen as provisional and as evolving experimentally and incrementally. On this view truth is not a property, a pre-supposition or a bias; it functions as a regulative principle towards the achievement of which all our cognitive personal development and professional undertakings must aim. We are therefore better advised to adopt a pragmatic approach towards our problems, the temporarily unfalsified solutions to which then join the body of *ad hoc* and provisional 'theory' on which we manage our daily responsibilities. A curriculum for education and personal and social development on this model would not be restricted to 'subjects' or 'disciplines' but would list and concentrate on the substance and context of the problems with which the community is faced and the various bodies of theory and practical procedures by means of which we could best attempt to solve them. An attempt is made to show how adherence to either of these models could issue in the form of a program for curriculum development, that an educational institution committed to a problem-based learning approach could adopt and offer its students (cf Bridges and Hallinger 1992; Robinson 1993).

The question of how this relates to the education of leaders is found in the fact that the epistemological concerns of educating institutions are also paradigms of democracy at work. The roles and functions of school principals and educational leaders are a consequence of the community's concern for its knowledge, values and preferred attitudes to be passed on in forms of organisation formally instituted for that purpose, and thus requires that some of its citizens be prepared for the opportunities for leadership that form of society offers and indeed requires of them in that kind of establishment. This therefore underlines the epistemic and moral importance of the principal's role and responsibilities for creating and managing the democratic school (Chapman, Froumin and Aspin 1995).

A curriculum for the education of the modern principal is thus *not* an attempt to perceive some kinds of eternal verity and then follow their dictates, *nor is it* a way of grasping at and exercising power so as to make sure that their version of the truth shall prevail: *it is* an exercise of evolutionary epistemology and of summoning cognitive resources from all possible corners of the cognitive map to develop, criticise and apply the best theories to the solution of tractable problems. And this is an exercise that is difficult, fragile, costly and by no means leading to

principal infallibility. As Wittgenstein remarked: we can only talk of knowledge in the presence of the idea of being mistaken - and every principal and leader, at every level in education, will know what he meant!

#### SOME KEY EPISTEMOLOGICAL QUESTIONS AND ISSUES FOR THE DEBATE ABOUT CURRICULA IN QUALITY SCHOOLS

At the present time throughout the world a widespread stock-taking is taking place on key issues pertaining to the construction of the curricula of educating institutions: does it matter if, at the national level, legislation enacts requirements as to those subjects to be covered in the curriculum? How do such enactments determine delivery? Are there inflexibilities of institutional structure or function that inhibit change? If legislation sets in place the objectives and goals to be achieved in specific subjects, does this interfere with professionals' rights not merely in respect of appropriate teaching methods and curriculum, but also their properly qualified view of what constitutes and counts as the subject itself? Is there any danger that the promulgation and imposition from the centre of national statements of goals and curriculum frameworks, schemes and guidelines might overtly or covertly condition and shape the nature of curriculum subjects, in such a way that the ontology of a subject can become distorted from what the professionals believe it is or should be? From which dominant intellectual traditions and cultural values shall the curriculum selection be made, and on what grounds?

The question of which shall be the dominant, preferred or stipulated cognitive categories, intellectual traditions and cultural values from which curriculum schemes are to be constructed is a crucial one. We need, however, also to include in that examination the ways in which cultural values are passed on in the school as a social institution by informal or extra-curricular means, as well as formally through the child's exposure to the curriculum and to subject learning. School is a highly effective social and socialising institution and we need to consider how it functions and affects the learning and the development of the child, in all the various ways, formal, non-formal, informal and para-normal, in which these occur. This is particularly important in the case of the question of access to the curriculum. Should there, for example, be different curriculum goals for different groups in society? Is the curriculum we envisage for *all* students the same curriculum we