# **Reconsidering Competence**

## TERRY HYLAND

Attempts by David Bridges and others to justify certain models of competence-based education and training (CBET) are criticised on the grounds that they do not challenge the behaviouristic nature of the functional analysis system which underpins CBET. Competence strategies serve to de-skill and de-professionalise teaching and other public-service occupations by their technicist and reductionist approach to human values and knowledge. Educators committed to liberal values should eschew competence strategies in favour of learning theories inspired by the experiential tradition.

### INTRODUCTION

David Bridges's (1996) recent attempt to reappraise—perhaps with an eye to possible rehabilitation within the domain of worthwhile educational ideas – the theory and practice of competence-based education and training (CBET) was carefully argued and provided many valuable insights into this currently ubiquitous approach to education and training at all levels of the system. Bridges was only too aware, however, of the possibility of, as it were, giving comfort to the enemy by 'adding legitimation to the extension of the NCVO model which I also believe to be seriously flawed' (p. 363). This is, indeed, a risk for anyone opposed to the 'epistemologically naive' (*ibid.*) behaviourist National Council for Vocational Qualifications (NCVQ) model, not least because the implementation of this approach in the field of vocational education and training (VET) has led to a 'disaster of epic proportions' (Smithers, 1993, preface). Indeed, an especially worrying aspect of the application of this particular strategy is that—in spite of the increasingly large number of studies which indicate that, even within its own terms of reference, CBET has demonstrably failed to achieve its principal objectives (Robinson, 1996; Gokulsing, Ainley and Tysome, 1996; University of Sussex, 1996; Hyland, 1994, 1996)—it still manages to attract substantial Department of Education and Employment (DFEE, 1996) support and continues to influence practices from school to university without the benefit of any rationally justifiable philosophical foundation.

<sup>©</sup> The Journal of the Philosophy of Education Society of Great Britain 1997. Published by Blackwell Publishers, 108 Cowley Road, Oxford OX4 1JF and 350 Main Street, Malden, MA 01248, USA.

There is, however, an even greater danger than the one to which Bridges alludes and this is that, by talking about the possibility of alternative or more broadly-based conceptions of CBET which may accommodate 'value-laden professions' (1996; pp. 373 ff.) and even morality, we may come to believe that such non-behaviourist conceptions of competence actually exist. This fallacy of reification may thus come to justify the extension of CBET strategies in ways which I feel sure Bridges could never endorse. In examining these issues I want to pursue three main spheres of argument:

- 1. I will suggest that CBET is not just contingently but *intrinsically* behaviouristic, and that competence strategies cannot carry the weight of so-called alternative models which purport to include wide-ranging knowledge, understanding and values.
- 2. Competence strategies are concerned primarily with the assessment of performance, not with learning and development, and—underpinned as they are by technicist and managerialist assumptions—they cannot accommodate the ethical and epistemological bases of professional practice.
- 3. Linked to this is the excessive individualism of CBET models and hence the tendency to marginalise the collective values of professional work, thus serving to de-professionalise work in public service occupations such as teaching, health and social work.

## 1. Models of competence

The first thing that needs to be emphasised about the current fashion for CBET approaches is that—notwithstanding attempts to identify putative alternative models—the dominant model popularised through the work of the NCVQ is definitely and *unequivocally* behaviourist. All commentators are in agreement about the behaviourist foundations of CBET (Ashworth and Saxton, 1990; Marshall, 1991; Hodkinson, 1992; Hyland, 1993, 1994); the NCVQ approach is well characterised by Norris (1991) as resting on:

a description of behaviour (sometimes called performance) and the situation(s) in which it is to take place (sometimes referred to as range statements) in a form that is capable of demonstration and observation (p. 332).

Indeed, the currently dominant NCVQ approach has been described as 'unashamedly behavioural' (Marshall, 1991, p. 61) and incorporated into a system which is 'ruthlessly applied' (Smithers, 1993, p. 9) in all contexts.

Since no one—not even those critics seeking to recommend alternative conceptions of CBET (Hodkinson, 1992; Leicester, 1994; Hager and

Beckett 1995)—seems to want to defend behaviourist learning theory, I will not rehearse all the arguments against this approach to education and training. What such critics need to show, however, is how a system constructed out of a 'fusion of behavioural objectives and accountability' (Fagan, 1984, p. 5) and rooted in theories of 'social efficiency' (Hyland, 1994) can possibly accommodate the objectives of educators 'concerned to provide a liberal education in support of positive freedom' (Bridges, 1996, p. 367). The plain fact is that the liberal concerns espoused by Bridges could not be further away from the aims and procedures—described by Alexander and Martin (1995, p. 83) as a 'contemporary version of payment by results' whose 'basic purpose is to counter professional resistance'—of CBET.

In examining putative alternative models of CBET it is important to distinguish between those that are merely constructs—such as the 'generic' and 'cognitive' versions identified by Norris (1991) and the 'interactive' model recommended by Hodkinson (1992)—and those, such as the Australian 'integrated' model (Hager and Beckett, 1995), which are said to be actually in operation. In addition, since this sphere of discourse is highly contentious and not notable for either its conceptual clarity or concerns with logical consistency, it is always necessary to mark the difference between what is claimed for models of competence and what actually makes sense in terms of the requirements of rational discourse and educational criteria.

Proponents of alternative conceptions of competence have to deal with the undeniable fact that the term—in addition to being systematically ambiguous and of 'unclear logical status' (Ashworth and Saxton, 1990, p. 9)—is a basic minimum or lowest common denominator sort of concept (standard definitions include synonyms such as 'sufficient', 'suitable' and 'adequate') which does not signify high levels of achievement. Thus, although 'competent' cannot but be a term of approbation, any praise involved is neither undiluted nor unequivocal. The difficulties surrounding the ordinary-language connotations are revealed when definitions of competence (which are both numerous and vary considerably according to the occupational context in which they are being employed) move from the basic ones concerned with 'performance in employment' (NCVQ, 1988, p.v) to the more allembracing versions which include 'sufficient skills, knowledge, appropriate attitudes and experience for successful performance in life roles' (FEU, 1984, p. 3). Such confusion is caused partly by the failure, noted by Carr (1993), to mark a distinction between the broader 'capacity' and the narrower 'dispositional' uses of 'competence' (revealed in the widespread conflation of 'competence' and 'competency', see Hyland, 1994, pp. 21ff.), and partly by the inability of proponents to resist the very widest coverage for such an exceptionally persuasive slogan term.

The problem with such extended uses of competence—and the applications become even more constrained when applied to such areas as morality (Wright, 1989) and autonomy (Jessup, 1991)—is that a basic minimum concept is being asked to bear far more weight than it can conceivably carry. As with examples of skill-talk in education, such versions of competence are guilty of a kind of false essentialism or naturalistic fallacy by assuming the existence of x and then adopting procedures which serve to legitimate the nature and operational scope of x. Research programmes and educational objectives associated with general intelligence, skills and general powers of the mind provide similar instances of this sort of fallacious reasoning.

In relation to generalised skills, Dearden (1984) points out that:

there may indeed be features common to all skilled performances in virtue of which we call them skilled, but it does not follow that it is the same skill which is present in each case: in the skater, the juggler, the flautist, the chess player and the linguist (p. 78).

Powell (1968) makes a similar point in arguing that epithets such as 'careful', 'accurate' and 'thorough' are meaningless until the details of their context and application have been supplied. The context-bound character of such putative high-level skills and qualities is also endorsed by Phillips-Griffiths (1965) who argues forcefully against the widely-held belief that higher education can be regarded as a general preparation for adult and working life, and a strong case against domain-independent critical thinking skills has been advanced by Gardner and Johnson (1996).

Thus, although writers may wish for various reasons to talk about skills such as 'problem solving' (Walklin, 1990, p. 24) and 'personal effectiveness' (Annett, 1989, p. 4) there is no more evidence for the existence of such general abilities than there is for their CBET counterparts in the guise of 'generic competence' or even 'metacompetence' (Fleming, 1991). Of course, anything may can be *described* as a core or generic skill, just as anything may be *stipulated* as a competence; whether it makes educational or logical sense to do so is quite another matter.

Extended uses of skills and competences of this sort may thus be classified as types of educational slogans which function as 'rallying symbols' (Scheffler, 1960, pp. 36 ff.) in the sense that, although they may appear to be descriptive of practice, they are actually, in the words of Komisar and McClellan (1961), designed to 'recommend, advise, exhort, hint or suggest that certain educational practices should be followed and others avoided' (p. 198). Rather than describing actual practice, what those writers discussing 'generic' and 'interactive' conceptions of competence are, quite properly, trying to do, therefore, is to recommend additions or alterations to the existing behaviouristic models in order to meet a broader range of educational criteria. Indeed, this aim is explicit in the case of Hodkinson's recommendation of an 'interactive' approach to competence which incorporates intellectual processes and schemata and 'focuses on beliefs and how we think, as well as on performance' (1992, p. 35).

Such alternative accounts do not, however, alter the behaviouristic thrust of CBET strategies but rather prescribe ways in which such

strategies may be *supplemented* by non-behaviouristic approaches so as to remedy some of the main failings and weaknesses of CBET. Although all such attempts to temper and mitigate the worst features of behaviourism are to be welcomed—and within this category we need to include the so-called integrated model of competence used in Australia (Hager and Beckett, 1995) as well as Winter's attempt to marry competence statements with 'educational criteria derived from an elaborated theory of the reflective professional practitioner' (1992. p. 114)—none of them succeeds in changing the nature and purpose of the atomistic model of functional analysis which characterises CBET.

The problem is, as Halliday (1996) correctly points out, that the 'term competence comes loaded with implications about the nature and purpose of education which are largely undesirable' (p. 47). Underpinning such implications is a reductionist view of human agency which assumes that knowledge, skills and values can be codified in terms of lists of competence statements and measured objectively in abstraction from everyday experience. This leads to an excessively instrumentalist conception of knowledge and skills—'there is no justification for assessing knowledge for its own sake but only for its contribution to competent performance' (Jessup, 1991, p. 129)—in which the process and evaluation of learning are divorced from the accreditation of competence (Hyland, 1994). Moreover, such a technicist and reductionist approach to education and training is not a by-product of adopting competence strategies, but an intrinsic and necessary feature of an approach informed by 'Taylorist principles of scientific management, involving the separation of mental and manual labour' (Shaw and Crowther, 1995, p. 209).

Such strategies—based as they are on what Halliday (1996) calls a 'mistaken epistemology of logical empiricism' (p. 43) informed by the myth of a measurable 'objective reality' which 'supports current British and Australian systems of competence-based VET' (p. 54)—are characterised by an obsession with collecting evidence to satisfy predetermined performance criteria. It is just this feature of CBET—resulting in a radical mismatch between processes and products when the model has been bolted on to existing learning programmes in further and higher education (Hyland, 1994; Barnett, 1994)—which has been responsible for the notable failures and weaknesses of the NCVO system referred to earlier. All this leads to a misguided separation of means and ends in educational activities and results in a distortion of the positive and dynamic relationships between learning, teaching and assessment.

## 2. Competence and professional learning

The central problem for those such as Bridges who wish to apply CBET to value-laden occupations such as teaching is that competence systems—whether these are atomistic as in the British model or allegedly holistic and integrated as in the Australian model—are concerned only with the accreditation of performance outcomes, not with processes of learning and development. If it really is the case that CBET outputs are 'independent of any specific course, programme or mode of learning' (NCVQ, 1988, p.v), 'firmly rooted in the functions of employment' (Jessup, 1991, p. 39) and 'have nothing whatsoever to do with training or learning programmes' (Fletcher, 1991, p. 26), how on earth can such approaches be applied to higher level vocational and professional studies? Indeed, the very idea of using a system designed to accredit work-based vocational skills as a model for professional education seems, to say the very least, counter-intuitive.

Although the idea of professionalism is something of a contested concept, certain key epistemological and ethical dimensions of practice are stressed in all the mainstream accounts (Langford, 1978; Elliott, 1993; Eraut, 1994). What is clear is that these distinctive features are under-valued if not overlooked completely in CBET systems. As Elliott (1993) argues, within such systems the 'outcomes of professional learning are construed as quantifiable products which can be prespecified in tangible and concrete form'; knowledge belongs to the 'realm of inputs rather than outputs' and 'its introduction can only be justified if it is a necessary condition for generating the desired behavioural outcomes of learning' (pp. 16–17). Almost without exception, the introduction of CBET approaches—whether this has been in industry (Field, 1995) or education and the professions (Hodkinson and Issitt, 1995; Avis et al., 1996)—has gone hand-in-hand with the increase of managerialist control and input/output efficiency and accountability. As Elliott (1993) rightly observes, the 'production technology' of CBET strategies, although now somewhat discredited in the academic domain, continues to linger in the political domain 'as an ideological device for eliminating value issues from the domains of professional practice and thereby subordinating them to political forms of control' (p. 68).

The reductionist and technicist features of CBET—in addition to its 'excessively individualistic' (Ashworth and Saxton, 1990, p. 13) nature—similarly count against its application in the fields of morality and personal values. Certainly, just at the level of common sense, the whole idea of applying an industrial model of vocational accreditation to the domain of moral values would seem to be doomed from the outset. Attempts to reduce morals to skills or competences have been criticised (Hyland, 1992; Carr, 1996) on the grounds that such approaches fail to capture either the complexity of moral development or the processes of moral reasoning. As Richard Smith (1987) has observed, skills can be separated from persons in a way in which virtues cannot since

my skill and I are separate: it is not an essential part of me. You learn nothing about what sort of individual I am if you discover that I have or lack some skill or another (p. 198).

Similar sentiments are expressed in Hart's (1978) observation that 'certain of the activities in which we engage stand in a peculiarly intimate

relation to the kind of people we are' (p. 210). What Hart has in mind here are personal qualities of both mind and character which cannot be captured by disembodied skills and competences. Moreover, such arguments apply, not just to morality, but also to epistemology. Just as skills can be distinguished from virtues with reference to disposition. so knowledge in the strong sense can be similarly characterised. As Mike Smith (1984) has observed, although we can choose whether or not to exercise a skill.

one cannot decide to know or understand something in the way that one can consciously decide to read a passage, make and execute a pass in football, or carve a piece of stone (p. 228).

Knowledge is as intimately connected with personhood as are virtues and moral values. Thus, insofar as competence strategies transform knowledge, skills, attitudes and values into commodities which are somehow independent of human agency—save, of course, for the fact that humans must now 'compete' for such commodities in the education and training market (Halliday, 1996)—they serve to undermine the central features of professional practice.

# 3. Individualism and professional ethics

Carr (1994) has argued cogently for the idea that most problems in professional domains such as education call for a 'moral rather than a technical response' and that teaching should be characterised in terms of 'virtues rather than skills' (p. 47). The marginalisation of the values foundation of professional activity through the introduction of CBET approaches has, thus, led to a widespread de-professionalisation which has served to neutralise the discussion of ultimate ends in public service spheres (Barton et al., 1994; Hodkinson and Issitt, 1995). In addition, teachers working in opted-out schools, nurses employed in NHS Trust hospitals and, since 1993, further education lecturers in the new corporate colleges can easily become isolated from collegial values and thus vulnerable to the managerialist policies of market-oriented and increasingly insular institutions. Then there is far less likelihood that critical professional debate and alternative perspectives will serve to temper the top-down policy-making of an increasingly centralised bureaucracy characterised chiefly by technicist and instrumentalist ideological commitments (Chitty and Simon, 1993).

There is a sense in which CBET reinforces the individualistic nature of contemporary technicism by asserting that, as befits commodities in the market place of education and training, competence is essentially 'an individual's personal property' (Ashworth, 1992, p. 12). Not only does this, as with skill-talk, further alienate people from the learning which may result from education and training, but also such an approach 'ignores the truly collective aspects of teamwork' (ibid.) in all areas of working life. Such approaches do not acknowledge the extent to which

knowledge, skills and values are a product of joint social action developed through engagement in complex sets of interwoven social transactions (Wertsch, 1991). More importantly, the individualist thrust of CBET applications is potentially disastrous both for professionals and their clients in that it obscures the central conception of professional practice as a social activity concerned with issues which require 'collective, rather than merely individual, action' (Barton *et al.*, 1994, p. 540). The idea of the 'learning community' is, after all, dependent upon 'collective intelligence' (Brown and Lauder, 1995, p. 28), and the 'learning society' can only be developed through a 'collaborative process of agreeing the values of learning that are to guide and sustain life in the community' (Ranson, 1994, pp. 109–110).

#### CONCLUSION: COMPETENCE AND COLLUSION

I have argued that CBET strategies have not only failed in terms of their own internal objectives, but have also served to de-skill and deprofessionalise many occupations by undermining the epistemological and ethical bases of professional activity. A central and intriguing question, therefore, is why so many people still seem, in varying degrees, to want to support such approaches to education and training. Why, after all, if educators are truly committed to 'holistic assessment' (Hager and Beckett, 1995, p. 19), to the educational implications of a 'Wittgensteinian approach to mental acts' (Leicester, 1994, p. 113), or to 'more vigorous attention to the doing dimension of human being in education' (Bridges, 1996, p. 364) do they not simply make proposals and recommendations designed to achieve such objectives rather than trying to merge them with competence strategies which (where they are not totally discredited or outright failures) are self-evidently incompatible with these ends? This is, perhaps, more of an empirical or psychological question than a philosophical one but it is none the less fascinating for all that.

One principal reason for the ubiquity and popularity of competence-speak, of course, is simply the power of the sloganising process referred to earlier. In recent times, educational discourse has been unduly influenced by a range of fashionable concepts—skills, standards, quality, to mention a few—which, in spite of their ambiguity and intellectual vacuity, have manipulated and distorted contemporary debates. It is noticeable how all such concepts are informed by managerialist and technicist assumptions (Alexander and Martin, 1995; Avis *et al.*, 1996; Halliday, 1996) and, in this respect, competence is an ideal slogan for it combines an apparently precise and objective assessment system (everyone is against incompetence after all) with the required elements of control and accountability. If we add to this the massive amounts of public money spent by the NCVQ on public relations and marketing over the last ten years (Hyland, 1996; Robinson, 1996) the irresistible spread of competence strategies becomes even more understandable.

The invasion of the language by such fashionable slogans is such that—and this applies particularly to the concepts of quality and skills as well as competence—even philosophers of education find them difficult to resist. Moreover, since there are increasingly close links between funding mechanisms and NCVQ outputs—so strictly controlled in the further and adult sector that non-NCVQ programmes are almost impossible to run (Hyland, 1996; Avis et al., 1996)—it is not difficult to understand why teachers and researchers from school to university feel compelled to incorporate the idea of competence somewhere in their proposals.

Although no doubt influenced to some degree by these factors. Bridges makes three specifically educational claims which may be used to defend competence strategies (1996, p. 370) and which repay close consideration:

(*i*)

'an extended view of the conditions necessary for the exercise of positive freedom that emphasises socially situated competence'.

As mentioned earlier, although this extended notion is referred to in the alternative constructs of competence, there is no evidence that such versions are actually in operation, and those that may exist (such as the Australian model or Winter's ASSET model) only supplement or temper the behaviourist elements of CBET rather than eradicate them. In any case, I would have thought that if we were looking for the learning theories or programmes which stressed the 'exercise of positive freedom', the domain of CBET which is dominated by behaviourism and workbased functional analysis might be the very last place to look. The first place, on the other hand, would be the cognitive/humanistic tradition which, in the form of Kolb's eclectic experiential learning theories, characterises programmes which overemphasise outcomes at the expense of processes as 'maladaptive' ones which can easily become paradigm cases of 'non-learning' (1993, p. 144).

(ii)

'considerations to do with fairness and equity in terms of the conditions under which competence is recognised and accredited'.

Criticisms of the NCVQ system for its abject failure in just this respect of ensuring 'fairness and equity' of assessment are prominent in all the recent studies of NVQs. CBET systems have consistently failed to show superiority over conventional assessment models (Tuxworth, 1989; Wolf, 1995) and, moreover, the NCVQ model has proved to be cumbersome, costly, excessively bureaucratic and unreliable (University of Sussex, 1996; Gokulsing, Ainley and Tysome, 1996). Indeed, reliability of assessment, as Jessup (1991, pp. 191-2) has openly admitted, has now been abandoned in the quest for a spurious kind of increasingly task-specific validity. This obsession with validity is a particular weakness of systems like the NCVQ one based almost exclusively on criterion-referencing (Wolf, 1995; Davis 1995) and one which is likely to be abandoned as new and revised NVQs with more rigorous external assessment and verification procedures are 'relaunched' in 1997/98 (Nash, 1997).

In addition to all this, it has to be said that the combination of an NCVQ outcomes system with a post-school funding mechanism which rewards successful outputs has resulted in assessment abuses on an unprecedented scale in recent years. Studies by the education human rights charity Article 26 (Bell, 1996) and by the Public Accounts Committee (Baty, 1997) have revealed widespread fraud and corruption in the area of NCVQ awards. In the sphere of vocational studies, we have never been further from the fairness and equity of assessment recommended by Bridges, and there seems to be no way back short of abandoning certain fundamental CBET principles.

(iii)

'benefits, including perceived emancipatory benefits, related to the rendering public and transparent of criteria for the assessment of professional competence'.

The unreliability of CBET assessment and its vulnerability to abuse also counts against this call for public and transparent criteria. The significant question here, however, is why anyone should equate such a call with the introduction of a competence framework. There are any number of ways of ensuring public accountability in the professions (Eraut, 1994; Hodkinson and Issitt, 1995) without opting for CBET systems. The 'practical science' model of professional studies recommended by Elliott (1993), for example, drawing on a wide range of studies of professional expertise and reflective practice, incorporates detailed descriptions of learning objectives and criteria linked to the need for public accountability. Similarly, Halliday's suggestions for VET programmes based on 'practical wisdom' and 'hermeneutics' (1996, pp. 51 ff.), as replacements for the 'empiricist' competence approaches, show how accountability criteria may be merged with educational and democratic values. The mesmerising impact of competence-speak and similar managerialist language has blinded us to the fact that, a long time before the introduction of centralised accountability measures in the 1980s, we had perfectly adequate educational assessment methods backed by rigorous standards of public scrutiny. CBET has almost destroyed ideas about the value of formative and ongoing assessment (Ashworth and Saxton, 1990; Hyland, 1994), and it is worth remembering that we can legitimately recommend such approaches without resorting to the 'educational nihilism' which Winch and Gingell (1996, p. 387) seem unnecessarily worried about.

CBET is conceptually confused, epistemologically ambiguous and based on largely discredited learning principles (Hyland, 1993). So-called 'alternative' versions are either illusory or merely serve to mitigate the worst features of competence strategies. Such strategies have nothing of value to offer and should be eschewed by all those committed to an 'education that is liberal or liberating' (Bridges, 1996, p. 364). This sort of commitment is more likely to be realised by looking to theories of learning which are 'liberal' in the degree to which, in Scheffler's words, they 'respect the student's intellectual integrity and capacity for independent judgment' (1973, p. 67).

Correspondence: Terry Hyland, Dept. of Continuing Education. University of Warwick, Coventry CV4 7AL, UK.

#### REFERENCES

Alexander, D. and Martin, I. (1995), Competence, curriculum and democracy, in: Mayo, D. and Thompson, J. (eds): Adult Learning, Critical Intelligence and Social Change (Leicester, National Institute of Adult Continuing Education).

Annett, J. (1989), Training in Transferable Skills (Sheffield: Training Agency)

Ashworth, P. D. and Saxton, J. (1990), On competence, *Journal of Further and Higher Education*, 14.2, pp. 3–25.

Ashworth, P. D. (1992), Being competent and having 'competencies', *Journal of Further and Higher Education*, 16.3, pp. 8–17.

Avis, J., et al. (1996), Knowledge and Nationhood (London, Cassell).

Barnett, R. (1994), The Limits of Competence: Knowledge, Higher Education and Society (Buckingham, The Society for Research in Higher Education and Open University Press)

Barton, L. et al. (1994), Teacher education and professionalism in England: some emerging issues, British Journal of Sociology of Education, 15.4, pp. 402–407.

Baty, P. (1997), DFEE called to account, Times Higher Education Supplement, March 14th.

Bell, C. (1996), The Dangers of Dearing's National Lottery (London, Article 26).

Bridges, D. (1996), Competence-based education and training: progress or villainy?, *Journal of Philosophy of Education*, 30.3, pp. 361–376.

Brown, P. and Lauder, H. (1995), Post-Fordist possibilities: education, training and national development, in: Bash, L. and Green, A. (eds), *Youth, Education and Work* (London, Kogan Page).

Carr, D. (1993), Questions of competence, *British Journal of Educational Studies*, 41.3, pp. 253–271.
Carr, D. (1994), Educational enquiry and professional knowledge; towards a Copernican revolution, *Education Studies*, 20.1, pp. 33–52.

Carr, D. (1996), *The Moral Role of the Teacher* (Edinburgh, Scottish Consultative Council on the Curriculum).

Chitty, C. and Simon, B. (eds) (1993), *Education Answers Back* (London, Lawrence and Wishart). Davis, A. (1995), Criterion-referenced assessment and the development of knowledge and understanding, *Journal of Philosophy of Education*, 29.1, pp. 3–21.

Dearden, R. F. (1984), What is general about general education? in: Dearden, R. F. *Theory and Practice in Education* (London, Routledge and Kegan Paul).

DFEE (1996), Government Response to the Beaumont Report on the Most Used NVQs—Action Plan (London, Department for Education and Employment).

Elliott, J. (ed.) (1993), Reconstructing Teacher Education (London, Falmer).

Eraut, M. (1994), Developing Professional Knowledge (London, Falmer).

Fagan, E. (1984), Competence in educational practice: a rhetorical perspective, in: Short, E. (ed.), *Competence: Enquiries into its Meaning and Acquisition in Educational Settings* (New York, University of America Press).

Field, J. (1995), Reality-testing in the workplace: are NVQs employment-led?, in: Hodkinson, P. and Issitt, M. (eds), *The Challenge of Competence* (London, Cassell).

FEU (1984), Towards a Competency-Based System (London, Further Education Unit).

Fleming, D. (1991), The concept of meta-competence, Competence and Assessment, 16, pp. 9-12.

Fletcher, S. (1991), NVQs, Standards and Competence (London, Kogan Page).

Gardner, P. and Johnson, S. (1996), Thinking critically about critical thinking: an unskilled enquiry into Quinn and McPeck, *Journal of Philosophy of Education*, 30.3, pp. 44–456.

Gokulsing, K., Ainley, P. and Tysome, T. (1996), Beyond Competence: The NCVQ Framework and the Challenge to Higher Education in the New Millennium (Aldershot, Avebury).

Hager, P. and Beckett, D. (1995), Philosophical underpinnings of the integrated theory of competence, Educational Philosophy and Theory, 27.1, pp. 1–24.

Halliday, J. (1996), Empiricism in vocational education and training, Educational Philosophy and Theory, 28.1, pp. 40–56.

Hart, W. A. (1978), Against skills, Oxford Review of Education, 4.2, pp. 205-216.

Hodkinson, P. (1992), Alternative models of competence in vocational education and training, Journal of Further and Higher Education, 16.2, pp. 30–39.

Hodkinson, P. and Issitt, M. (eds) (1995), The Challenge of Competence (London, Cassell).

Hyland, T. (1992), Moral vocationalism, Journal of Moral Education, 21.2, pp. 139-150.

Hyland, T. (1993), Competence, knowledge and education; *Journal of Philosophy of Education*, 27.1, pp. 57–68.

Hyland, T. (1994), Competence, Education and NVQs: Dissenting Perspectives (London, Cassell).

Hyland, T. (1996), NVQs, skills training and employers' needs: beyond Beaumont and Dearing, Journal of Vocational Education and Training, 48.4, pp. 349–365.

Jessup, G. (1991), Outcomes: NVQs and the emerging model of education and training (London, Falmer).

Kolb, D. (1993), The Process of Experiential Learning, in: Thorpe, M., Edwards, R. and Hanson, A. (eds), Culture and Processes of Adult Learning (London, Routledge and Open University Press).

Komisar, B. P. and McClellan, J. E. (1961), The Logic of Slogans, in: Smith, B. O. and Ennis, R. H. (eds), Language and Concepts in Education (Chicago, Rand McNally and Co).

Langford, G. (1978), Teaching as a Profession (Manchester, Manchester University Press).

Leicester, M. (1994), Competence, knowledge and education: reply to Hyland, *Journal of Philosophy of Education*, 28.1, pp. 113–118.

Marshall, K. (1991), NVQs: an assessment of the 'outcomes' approach in education and training, Journal of Further and Higher Education, 15.3, pp. 56-64.

Nash, I. (1997), Relaunch in spring to defuse critics, *Times Educational Supplement*, January 24th. NCVQ (1988), *Initial Criteria and Guidelines for Staff Development* (London, National Council for Vocational Qualifications).

Norris, N. (1991), The trouble with competence, Cambridge Journal of Education, 21.3, pp. 331–341.
Phillips-Griffiths, A. (1965), A Deduction of Universities, in: Archambault, R. D. (ed.),
Philosophical Analysis and Education (London, Routledge and Kegan Paul).

Powell, J. P. (1968), On learning to be original, witty, flexible, resourceful, etc.; Proceedings of the Philosophy of Education Society of Great Britain, II (1967–68), pp. 43–49.

Ranson, S. (1994), Towards the Learning Society (London, Cassell).

Robinson, P. (1996), *Rhetoric and Reality: the evolution of the new vocational qualification* (London School of Economics, Centre for Economic Performance).

Scheffler, I. (1960), The Language of Education (Springfield, IL, Charles C. Thomas).

Scheffler, I. (1973), Reason and Teaching (London, Routledge and Kegan Paul).

Shaw, M. and Crowther, J. (1995), Beyond Subversion, in Mayo, M. and Thompson, J. (eds), Adult Learning, Critical Intelligence and Social Change (Leicester, National Institute of Adult Continuing Education).

Smith, M. J. (1984), Mental skills: some critical reflections, *Journal of Curriculum Studies*, 16.3, pp. 225–232.

Smith, R. (1987), Skills—the middle way, Journal of Philosophy of Education, 21.2, pp. 197–201.

Smithers, A. (1993), All Our Futures: Britain's Education Revolution (London, Channel Four Television 'Dispatches' Report on Education). University of Sussex (1996), The Assessment of NVOs (University of Sussex, Institute of Education).

Walklin, L. (1990), Teaching and Learning in Further and Adult Education (Cheltenham, Stanley Thornes Ltd).

Wertsch, J. (1991), Voices of the Mind (London, Harvester Wheatsheaf).

Winch, C. and Gingell, J. (1996), Educational assessment: reply to Andrew Davis, Journal of Philosophy of Education, 30.3, pp. 377–388.

Winter, R. (1992), Quality management or the educative workplace: alternative versions of competence-based education, Journal of Further and Higher Education, 16.3, pp. 100-115.

Wolf, A. (1995), Competence-Based Assessment (Buckingham, Open University Press).

Wright, D. (1989), Moral Competence (London, Further Education Unit).