CULTURAL DIVERSITY AND LEARNING EFFICIENCY

RECENT DEVELOPMENTS IN ASSESSMENT

EDITED BY
RAJINDER M. GUPTA
& PETER COXHEAD

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and
Peter Coxhead

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Introduction

Learning is at the centre of all human cultures; indeed, without learning there could be no human culture at all. Learning is also at the heart of the educational process: a teacher has the task of ensuring that his or her pupils learn, which entails ensuring that at some time in the future, they will have knowledge and abilities that they do not have at present. Yet, in Western classrooms at least, access to this *future* learning has been primarily controlled by assessment techniques based on *present* achievement, whether this is achievement in specific academic tasks or in more generalised 'intelligence' tests. In Vigotskii's colourful analogy (see Chapter 5), it is as though a gardener judged the future potential of a garden, the potential it might have after years of careful cultivation, solely by the ripeness of the apples then on the trees.

A concentration on present achievement is shown to be even more misleading when it is considered that, although the ability to learn is clearly a common attribute of people from all classes, cultures and ethnic groups, it is equally clear that *what* is learnt is different. That this is true of detailed *knowledge* is obvious: one would be surprised to find that a villager in India could read a British Ordnance Survey map; one would be equally surprised to find that a British geography professor could not. It is sometimes less obvious that apparently more general *abilities* have also been learnt to different degrees by people from different backgrounds. An anecdote may illustrate this. One of the editors of this book (RMG) asked six postgraduate students, originally from the Indian sub-continent but at that time studying in Cambridge, to fold a spreadout Ordnance Survey map and to find the principle underlying the folding. Each student took a long time to fold the map (an average of nearly 6 minutes), and none could deduce the underlying principle. Since all later successfully completed a PhD, they clearly had no general learning difficulties, nor any lack of general intelligence. Rather, they simply had not learned those manual and spatial-reasoning skills involved in map-folding. Why? Surely because they had never regularly folded maps.

Perhaps to the specialist in this field all this is not new, and may indeed have become utterly obvious. Yet can we honestly say that existing assessment practices reflect this understanding? As Gould (1984, pp. 28–9) reminds us:

> We pass through this world but once. Few tragedies can be more extensive than the stunting of life, few injustices deeper than the denial of an opportunity to strive or even to hope, by a limit imposed from without, but falsely identified as lying within . . . We inhabit a world of human differences and predilections, but the extrapolation of these facts to theories of rigid limits is ideology!

The origins of this book lie in the editors' belief, shared by a growing number of educationalists, that only those forms of assessment which take into account a child's 'learning ability' can provide a basis for educational provision which allows all pupils access to genuine opportunities to learn. However, we must not be too narrow-minded in considering learning ability; individual and cultural differences of all kinds, purely affective as well as cognitive, are likely to be involved. We have to reflect as many of these as possible, both at the practical and at the theoretical level.

This is perhaps the point at which to say a few words about terminology. We have not sought to impose any uniformity on contributors; indeed in this rapidly developing field any such attempt would be unlikely to succeed. However, it is probably true to suggest that the terms 'learning ability' and 'learning efficiency' are used more or less synonymously, denoting the performance of a person in learning specific kinds of knowledge or specific abilities in specific situations. ('Efficiency' perhaps hints more at speed of learning than does 'ability'.) 'Learning potential' on the other hand carries a wider implication, suggesting an extrapolation to all areas of education, and indeed to life in general. The fact that we favour the assessment of learning ability, with the implication that this may say something about learning potential, does not imply that we believe that there is a single general learning ability *per se*, which may be deemed to be at the heart of all types of learning (*cf* Vernon, 1969). Instead, in line with the overwhelming evidence in the literature we subscribe to the view that learning ability is multi-factorial, with no single factor common to all measures of performance on different learning tasks (see, amongst others, Woodrow, 1938a,b, 1939a,b,c; Stake, 1961; Mackay & Vernon, 1963; Duncanson, 1964; Malmi *et al.*, 1979 and a study cited therein by Underwood *et al.*, 1978; also reviews by Guilford, 1967 and Cronbach, 1970). More recently Cronbach (1984, p. 260) has argued that

> to think of a 'general' learning ability – even for organised lessons – oversimplifies. Each method of instruction makes its own demands

for information processing; also there are content-specific learning abilities (for example, in foreign languages).

However, it does not follow that this view, or for that matter any other of the views expressed above, is shared by our contributors. We would not expect it either. As editors, our concern has been to gather material which conveys the richness and variety that has permeated this exciting field.

The book has been organised into three sections, each comprising a number of chapters. The first section of the book presents the **concept of learning ability**, together with the history of, and rationale for, its use in assessment. Three chapters provide accounts of the varied approaches which have been, and are currently being, used to assess the child's learning ability; these approaches are reviewed and critically analysed. This also involves contrasting the assessment of learning ability with more traditional assessment procedures (such as IQ measures), and displaying the unacceptable (because unjust) consequences which follow from the use of these traditional procedures, particularly when applied to children from diverse cultural backgrounds. The three chapters, Chapter 1 by the editors, Chapter 2 by Seamus Hegarty, and Chapter 3 by Gilbert Gredler, inevitably overlap slightly, but use varied research evidence to argue that, for the purposes of decision making, determining educational provision, and curriculum planning, practitioners should favour assessment related to children's learning potential as opposed to their achievements or 'intelligence'. However, such assessment is not a universal panacea, and some difficulties in using currently available measures are pointed out by Professor Gredler in particular.

The second section considers some of the **theoretical frameworks** which can provide a setting for the assessment of learning ability. It may seem to put the cart before the horse to consider concept before theory, but at present it is not unfair to say that, whatever the arguments against this practice, the assessment of learning ability is based more on an *ad hoc* use of diverse psychological theories and on empirical success than it is on a more general, broadly-based framework. (The best that can be said is that conventional IQ tests seem to have even less in the way of theoretical foundations.)

Professor Reuven Feuerstein's framework, which is discussed by Mogens Jensen, Reuven Feuerstein, Yaacov Rand, Shlomo Kaniel and David Tzuriel in Chapter 4, has generated considerable research interest, particularly in Europe, Israel and the United States. 'Structural Cognitive Modifiability' makes a clear distinction between those

individuals and groups who are 'culturally different' and those who are 'culturally deprived'. Although under some circumstances the manifest level of functioning of both groups may be quite similar, and in both cases may require mediation and educational intervention, the underlying etiology (cultural difference vs. cultural deprivation) will indicate considerable differences in the nature, intensity and mode of this intervention. The key factor is 'Mediated Learning':

> the interactional process between the developing human organism and an experienced adult who, by interposing himself between the child and external sources of stimulation, mediates the world to him by framing, selecting, focussing and feeding back environmental experience in such a way as to create appropriate learning sets!
>
> (Feuerstein, 1970, pp. 358–9)

The culturally deprived, through lack of sufficient exposure to mediated learning, will often lack important cognitive skills, and in particular flexibility and modifiability, whereas the culturally different, with adequate exposure to mediated learning, may initially have similar difficulties when immersed in a strange culture, but these are essentially due to a lack of knowledge rather than a lack of cognitive skills. The Learning Potential Assessment Device (LPAD) which is firmly based in this theoretical framework, is crucial both in diagnosis and in defining appropriate remediation.

Vygotskii's work and his Cultural Historical Theory of mental development, described by Andrew Sutton in Chapter 5, is less familiar to Western academics, although beginning to receive more attention. The different historical and political origins of Vygotskii's work (accompanied by difficulties in translation), should not hide from us the underlying similarities with many of the views expressed in earlier chapters. The focus on the 'Zone of Next Development' in particular expresses exactly the central thrust of the argument in favour of assessing, however imprecisely, a child's future learning potential rather than his or her current status. (It should not however be assumed that the Vygotskian tradition is necessarily in sympathy with attempts to reduce this assessment to procedures possessing, at least in some measure, psychometrically desirable properties.) If societies do undergo predictable historical changes, along with related cultural developments, history, sociology and politics interact with psychology much more than non-Marxist scholars in the West have been prepared to consider.

The final section considers some **current research and practice**. The

editors, in Chapter 6, show how a particular instrument, the Learning Efficiency Test Battery, was designed, developed and psychometrically validated. Although this particular assessment device was specifically constructed with Asian children living in Britain in mind, some evidence is presented that it is of wider application. Part of the purpose of this chapter is to provide an example (not necessarily perfect!) so that others may be encouraged to develop a variety of high-quality measures of learning ability. The existence of a range of good measures of learning potential might encourage more practitioners and researchers to use them in their work as sheer availability accounts for some of the continued use of intelligence tests.

Presenting learning tasks without considering affective factors, is, in our judgement, extremely unwise. Many children referred for assessment may have a long history of failure, particularly in basic school subjects. Presenting such children with learning tasks with the intention of assessing their learning ability, but where those tasks are culled from a subject domain in which they have a history of learning failure, can generate feelings of anxiety, fear of betraying inadequacy, and poor self-esteem, leading to avoidance behaviour. Any child experiencing such feelings is unlikely to be able to concentrate well on the task in hand, and hence his or her performance will be adversely affected (see also Bloom, 1976; Spielberger, 1975). In Chapter 7, David Tzuriel, Marilyn Samuels and Reuven Feuerstein discuss the influence of non-intellective factors during the administration of the LPAD. They consider how these influences can be understood and evaluated, and suggest some useful strategies for modifying their influence during a dynamic assessment procedure. Such an understanding is important, not only in respect of children's test performances, but also in understanding the learning difficulties which they may be experiencing in school and everyday life.

It seems likely there are distinct cultural differences in those affective factors which relate to varied learning tasks. Only by understanding and responding to these can we hope to achieve some measure of fairness across different cultural backgrounds. Monique Boekaerts, in Chapter 8, shows that in some important respects, even Flemish and Dutch pupils, who might be thought to be reasonably culturally similar, differ in the way they think about learning. Some implications for the classroom are discussed.

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Rajinder M. Gupta and Peter Coxhead

INTRODUCTION

In this chapter, we attempt to set out the reasons why the assessment of learning efficiency is frequently to be preferred to the more traditional forms of assessment widely used hitherto. There are two main directions to the argument. Firstly, traditional assessment procedures are demonstrably unfair to many ethnic minority groups. Secondly, there are sound theoretical reasons, increasingly backed by research evidence, for believing that the assessment of learning efficiency is more relevant to the determination of the appropriate educational provision for a child than are traditional procedures.

It is important to set out clearly from the start our reasons for attaching considerable importance to the issue of educational decisions relating to ethnic minority children. It is emphatically *not* that we believe that traditional procedures are acceptable for the cultural majority but somehow uniquely unfair to ethnic minority children. Nothing would be gained, and much lost, by having a separate set of assessment procedures used for ethnic minorities only; inevitably these procedures would come to be seen as second-rate. Rather, it is that traditional assessment methods implicitly pre-suppose a certain set of family and community inputs to a child's prior learning experiences. It has always been the case that many children within the majority community have not had these experiences; perhaps for socio-economic reasons, perhaps because of different traditions of child-rearing. However, in the absence of clearly identifiable ethnic minorities, it has always been possible for educators to minimise and even ignore such differences in children's prior experiences, and to believe, however incorrectly, that at least the principle of the unitary model held; individual differences being due solely to so-called 'cultural deficits'. Faced with distinct ethnic groups with their own developed and autonomous cultural practices, it becomes impossible to sweep away these prior differences; instead it is

essential to ensure that assessment procedures are used which are demonstrably fair, regardless of prior cultural experience. In our view, assessing learning efficiency takes a major step towards this goal.

ETHNIC DISPROPORTION IN SPECIAL SCHOOLS

In Britain, Coard (1971) was probably amongst the first to voice disquiet concerning the over-representation of West Indian children in special schools and/or units. Referring to the figures from the Inner London Education Authority survey (1968), *The Education of Immigrant Pupils in Special Schools for Educationally Subnormal Children*, Coard drew attention to the survey's findings that in 1967 in five of their ESN secondary schools there were 30 per cent 'immigrant' children, and that by January 1968 in one of these special schools the numbers rose to 60 per cent. In 1970, while there were only 17 per cent 'immigrant' children in ordinary schools, there were nearly 34 per cent 'immigrant' children in ESN schools; of all 'immigrant' children in ESM(M) schools, 80 per cent were of West Indian origin (see also Townsend, 1971). The Department of Education and Science's statistics (1972) further confirm that in almost all categories of special schools the number of West Indian children far exceeds the rest of the groups: compared to children from the 'rest of the commonwealth', there were nearly 66 times more West Indian children in special schools – surely an unacceptable and alarming figure by any standards.

The findings of a recent investigation (reported by Roberts, 1984) carried out in a Midlands town in England furnish further evidence that children from West Indian and Indian backgrounds are over-represented in remedial classes compared to their 'white' peers. These figures are summarised in Table 1.1.

Table 1.1 Percentage of children of each ethnic group in remedial classes

	West Indian	*Indian*	*Majority*
Remedial English	17%	12%	5%
Remedial Maths	19%	12%	8%

Source: Adapted from Roberts, 1984.

Compare the figures in Table 1.1 with those in Table 1.2. Table 1.2

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