CREATING AN EXCELLENT SCHOOL

Some New Management Techniques

Hedley Beare, Brian J. Caldwell
and Ross H. Millikan

ROUTLEDGE

Volume 1

CREATING AN
EXCELLENT SCHOOL

CREATING AN EXCELLENT SCHOOL

Some New Management Techniques

HEDLEY BEARE, BRIAN J. CALDWELL
AND ROSS H. MILLIKAN

Routledge
Taylor & Francis Group

CREATING AN EXCELLENT SCHOOL

Some New Management Techniques

HEDLEY BEARE, BRIAN J. CALDWELL AND ROSS H. MILLIKAN

R

Contents

Contents

Contents

vi

Figures

Tables

Foreword

There is much talk these days, in both educational and political circles, about the pursuit of excellence in schools; and a great deal of this talk is unproductive, seeking scapegoats, or looking for instant panaceas. Excellent schools are, as this book demonstrates, the product of good management. Good management, in its turn, depends on a clear understanding of valid management theory and, even more important, the ability to translate that theory into practice.

This volume offers profound insights, in a refreshingly readable manner, into those crucial areas of leadership, culture, structure and public accountability. At the same time there is a sense of vision in the writing, an essential antidote to the gloom and doom widely prevalent in education in many developed countries. It may be that we are so preoccupied with the immediate effects of change that we have lost the ability to visualise long-term benefits. One of the most striking passages in the book looks at the changes that the exponential growth of information technology - home microcomputer and interactive video - may well bring about in our concept of schooling in little more than a decade. Another chapter, **Re-conceptualising the school**, looks at the many innovations that are already experimentally current - flexitime, the vertical curriculum, mastery learning, community support - and depicts ways in which these can be knit together into a total educational experience.

The authors have an extensive knowledge and experience of educational practice in Australia, North America and Europe, linked with a sound grasp of educational theory. They also write well, an attribute not necessarily allied to knowledge. This is a book which a wide range of readers in many countries will find of

value: school teachers and school leaders, administrators, lay members of governing bodies and educational committees, lecturers and consultants in education management. **Creating an Excellent School** is a worthy addition to the Routledge (formerly Croom Helm) education management series.

Cyril Poster

Preface:

Why this Book is Necessary

This book is addressed to those who are involved in the running of schools, especially to principals and their senior staffs, but also to those parents and administrators who participate in policy-making about schools. We have tried to make the book not only readable and informative but also of practical value in the day-to-day management of schools.

There are two fundamental reasons why this book has become a necessity. The first is that school administration now takes place in an increasingly turbulent, politically charged environment; bluntly, running schools has become a tough job which involves very much more knowledge and skill than it did even a decade ago. And secondly, there has been almost a revolution in the writings and theories about educational administration since about 1975, largely as a result of the same environmental forces which have so complicated the life of school managers. In consequence, it is essential that those who are running schools or deciding policies about them should be up-to-date in their concepts about management and should not be trying to operate with outmoded concepts. In this book, therefore, we explain why some of the new ideas developed when they did; and then we have tried to put many of these ideas into a form which will make them readily usable by managers and policy makers.

We can demonstrate these changes in several ways, and we amplify our views in the chapters which follow. But to illustrate:

• Since the early 1970s, when so much was written about innovation and change, there has been enormous development in the way we conceive of the change process and change strategies. For example, it is likely that people will now talk of entrepreneurship

and intrapreneurship rather than about innovation, and when that term is used it usually is in such contexts as product innovation, or innovation in technology.

- Since the early 1980s, there has been a stream of new ideas about leadership which go far beyond the 'traits' approaches of a decade ago. The 'great man administrator' theories (they developed well before the feminist movement appeared) have now been thoroughly superseded, largely because organisations can no longer afford to function on such strictly hierarchical and centralist lines.

- There is a profound shift occurring in the way we conceive of school systems, especially public school systems. Put simply, the focus has moved away from system administration and towards viewing schools as the essential units in the delivery of learning programmes. System control is giving way to system co-ordination, schools are becoming much more independent and self-determining, school governance has taken over from the central administration many of the functions which were once carried out systemically, and the systems (or governments) have become much more concerned with setting priorities and laying down adequate accountability patterns.

In short, the landscape of school management has changed; we believe it will change even more as the post-industrial economy arrives. There will be more emphasis placed upon the way individual schools operate and are managed because education is so centrally located in the service and information sectors - the expanding parts of the new international economic order. Those who are running schools are expected to be quite sophisticated in their management techniques; and they also are expected to be expert in the theories about management.

      Because of the point we have made above about the shift in the way people are now conceiving of public education, with an emphasis upon the school as the prime unit for the delivery of an education service, we have chosen in this book to concentrate on the management of schools per se rather than of school systems or of clusters of schools, though we are aware that many of the concepts we discuss are applicable in educational administration wherever it is practised.

In recent years those connected to education have grown used to the words efficiency, effectiveness, excellence and equity (or equality) - as though the four Es have now replaced the three Rs. Even so, the vocabulary signals a profound shift, for it means that the contributions which education makes to the country's productivity, its competitiveness in international trade, its social stability and its political competence has at last been recognised. Unless education performs, the country cannot prosper. Schools which do not measure up to the high (and sometimes unrealistic) expectations held by parents, politicians and the community will come under very intense pressure, and may well lose money, resources and students. We are aware, then, that those involved in the management of schools need access to the newest ideas and to the techniques which embody them.

The book draws on material which has already been field-tested in dozens of seminars and workshops which we have run, and from our use of these ideas with literally thousands of teachers. Much of the content of this book has already appeared in the articles which we have written and which we know have been widely photocopied and quoted. So we are confident not only about the acceptability but also about the practicality of what we have included here. The book attempts to bring these materials together into one place so that they are more easily accessible to those involved in school management; the ideas do cohere, and they now constitute a reliable base upon which deliberate planning and action can be built.

We are grateful to many people who have supported the production of this book; not the least are our spouses who have not only given us continuous encouragement but have also had to adopt the project as an intrusive member of our families. Typing and production of the script have been expertly handled by Mrs Dorothy Rowlands (now Clarke) and the final typing, re-typing and computer setting by Ms Trudy Lingwood, with significant computer typesetting assistance given by Ailsa Mackenzie and Ross Millward; without their skill, perceptiveness, good humour and unwavering commitment, the book quite literally could never have come into existence.

1

The Movement to Create

Excellent Schools

There are two strong trends which since the mid-1970s have sub-
stantially changed the way we now regard and manage schools.
The first has been called 'the effective schools movement'; it was
in fact a concerted attempt in several countries to rediscover ways
of creating really excellent schools. The movement has produced
an impressive literature which school managers cannot afford now
to overlook.

The second movement was a profound change in the field of
study called educational management in Great Britain, and educa-
tional administration in North America and Australia, and which
has tended to make many of the ideas inherited from before 1975
obsolescent. In this chapter, then, we deal both with the issue of
effective schools and with why the matter became so prominent in
the early 1980s. In the next chapter we address the advent of new
ideas about educational administration and school management.

But this book is not merely an excursion into ideas. We
want also to discover what can be done with the notions produced
by these developments. In precise terms how can we change the
ways schools are run and administered by capitalising on these
developments of recent years? In Chapter 4, therefore, we return
to the outcomes of these recent movements and endeavour to sug-
gest patterns of operation which might embody the new ideas
about school management.

From School Effects to Effective Schools:
the movement from Coleman to Edmonds

One of the most influential scholars connected with the effective
schools movement, Ronald Edmonds, wrote in December 1982,

'Educators have become increasingly convinced that the characteristics of schools are important determinants of academic achievement' (Edmonds, 1982: 4). This view is the antithesis of the one widely held in the late 1960s and early 1970s, namely that schools do not make much difference. As Shoemaker and Fraser (1981: 179) point out, disbelief in the efficacy of schools crystallised in 1966 with the publication of the Coleman Report in the USA, which had demonstrated that:

> home environment variables were the most important in explaining the variance in achievement levels for all racial and regional groups, and school facilities and curriculum were the least important variables.

So what caused the change in attitude in the period between Coleman and Edmonds?

From the early 1960s investigation after investigation came up with the same result, that a student's progress at school, his or her success in academic study, is overwhelmingly more dependent on home background than on what the school does for the students. As far back as 1959, the UK Crowther Report had shown the close association between a father's occupation and the educational achievement of his children.

The Robbins Report in 1962, an investigation into the need for places in higher education in Great Britain, took the group of men and women who turned 21 in 1962 and classified them according to characteristics of their parents. Of those whose fathers left school before they turned 16, only 5 per cent went on to higher education; of those whose fathers studied beyond the age of 18, 57 per cent went on to higher education. Put another way, if that cohort is divided according to the occupation of their fathers, 45 per cent of those with fathers in the well-paid professions (doctors, lawyers, senior civil servants) went on to higher education, whereas of those whose fathers were in semi-skilled or unskilled jobs, only 2 per cent went on to higher education (Robbins Report, 1963: 49-54). On the basis of the socio-economic status of the parents, you can predict what the student's school record will be like.

But the most impressive documentation of this thesis resulted from the American study headed by Professor James Coleman, and conducted in the USA in the mid-1960s. It was one of the most comprehensive student surveys ever attempted,

covering thousands of children from every part of the nation. The Coleman Report (entitled *Equality of Educational Opportunity*) caused immediate argument around the world when it was published in 1966, for its most controversial finding was 'that schools bring little influence to bear upon a child's achievement that is independent of his background and general social context' (Coleman, 1966: 325).

The follow-up study by Christopher Jencks (1972) reaffirmed the same result and sparked off a similar public debate. The two reports, to quote Kerensky's summary, seemed to prove that:

the school is a much smaller part of a child's total education than most teachers and parents have assumed . . . What the child brings to school is more important than what happens in the classroom in determining the kind of person he will become (Kerensky, 1975: 44).

Australian evidence made the same kind of point. For example, in the 1960s and 1970s a team of researchers from the Centre for Research in Measurement and Evaluation in New South Wales followed a generation of students through their secondary schooling. From interviews with students and their parents, the researchers created an index to give a reading on 'opinion of schooling'. In only 3 per cent of cases did father and mother have strongly different views about the school and in only 6 per cent of the cases did the student's opinion vary strongly from the father's and mother's; in short, in most homes, mother, father and child all hold the same opinion about the child's school. About one home in four, across all classes of society, was dissatisfied with schooling. The report stated that 'the survival patterns of students from satisfied homes are strikingly different from the survival patterns of the dissatisfied students' (Moore, 1974: 8).

Three-quarters of the students from satisfied homes survived beyond year 10 (age 15/16), yet from the dissatisfied homes, only one half survived to year 10 and only one in six went beyond that level. Thus the parent's satisfaction with the school appears to be an accurate gauge of how well the student is performing. The Generation Study data could be considered from a second perspective. Define the parents' satisfaction with their child's schooling, their socio-economic level, their occupation and so on, feed this in to the computer, and one can predict fairly accurately what does in

3

fact happen to the child, at what year she will drop out of schooling, what her achievement patterns will be up to that point, and what occupation she is likely to pursue.

So The Generation Study researchers concluded:

> When home-based educational objectives clash with school-based objectives, the student normally resolves the conflict by rejecting school. The key figures in this whole dynamic social complex are the parents. It is the parents who can accept or reject aims projected into the home from the surrounding environment; it is parents who evolve the family system of values about education; and it is parents who reject or accept school values . . . It is a most curious paradox that the whole enterprise appears to stand or fall according to the support or opposition of parents - most of whom rarely, if ever, make an appearance on school premises or show any concern or interest in school happenings and affairs. (*ibid.*: 25)

If it is so demonstrable that home and family backgrounds have such an enormous impact on how well a student performs at school, why have not educators invented more efficient models of teaching and learning which link the two prime movers - the home and the school - in some clearly articulated, reinforcing way?

In fact, there were developments along these lines. The most obvious one to gather impetus from these studies was the movement to create boards or councils which involved parents (or parent representatives) in making the decisions about the school in which their children were enrolled. Across the Western world the powers and membership of school governing bodies were revised and where such bodies did not previously exist there were moves to set them up.

In several of the federal programmes instituted in the United States of America, it was a condition of receiving the grants that a school-site council be set up to help administer the funds. In several of the Australian States and Territories, school councils came into existence or else had their powers extended. And in Great Britain, the Taylor Report (1977) recommended important changes to the composition of Boards of Governors and Boards of Managers. In short, education authorities tried to invent formal mechanisms to link school and home in the management of the school.

There was also a concerted attempt to involve parents more fully in the learning programmes for their children. There was a variety of 'open education' techniques tried, and a proliferation of open-plan classrooms in which it was relatively easy for parent aides to be used as assistants to the teachers. A new range of assessment and reporting techniques came into play, and more adequate methods for the school to use to advise parents about the educational progress of their children were invented. In the process, of course, the management of schools became so much the more complicated.

Even so, it remains true that the children of the rich tend to go to richly endowed schools, that children whose parents are educated continue to win almost any educational race against those whose parents are uneducated, that children who have fathers in professional occupations crowd the others out of the available university places, that money spent on upper secondary and higher education continues to subsidise the children of the well-to-do and the middle class and that the school which deliberately sets out to serve the children of the uneducated and the poor is *not* looked upon as an excellent school until it can demonstrate that the children who attend it have made demonstrable gains on normal test scores or in examinations and can compete with students from the more privileged suburbs.

If we needed more evidence, one has only to study some of the effects of the programmes initiated by the Australian Schools Commission since 1972, or to read a book like Connell's *Making the Difference* (1982). In short, the Coleman findings have not only stood scrutiny but also constitute a threat to the existing social order, as well as to the schools which serve that society.

But the social order itself was under attack from other quarters too. The period when the efficacy of conventional schooling was being questioned coincided with developments like the war on poverty; the emancipation of women and the feminist movement; civil rights and in particular the rights of minority groups; the so-called new international economic order, and the emergence politically, economically and ideologically of Third World countries; the conservation ('green') movement; and, importantly for our purposes, the alternative schools movement, acceptance of lifelong learning in a variety of locations, learning networks, alternative and new curricula and learning programmes, and the rise in influence of people like Paulo Freire and Ivan Illich.

5

People began to understand that conventional schools may unwittingly - or quite wittingly - reaffirm an unjust social order and notions of class distinctions and privilege, that they can be a means of cultural reproduction and that left to their own devices they will probably produce more of the same. To invent alternatives to the current models for schools can therefore be profoundly disturbing to those who now occupy positions of influence and authority, and threatening to those whom the present system has given preferential treatment, status and improved life chances. So it was almost inevitable that there would be some kind of counter-revolution.

The movement to re-establish the reputation of conventional schooling gathered momentum in the late 1970s. In an article published in the Winter of 1973, Klitgaard and Hall asked whether it was possible to identify 'unusually effective schools', for there appeared to be evidence of 'schools and districts that consistently produced outstanding students, even after socio-economic factors were controlled for' (Klitgaard and Hall, 1973: 90).

Of particular interest in this study is that neither researcher was an educator; Klitgaard was an economist with the Rand Corporation and Hall was a Deputy Assistant Secretary in the Department of Defence. Yet even to them it was obvious that something was wrong with the research which consistently failed to show that what goes on in schools influences both how and what children learn. They stated what educators know from experience:

Considering the enormous diversity among the nation's public schools, it would surely be incredible if some were not much better than others. Furthermore, parents and children, administrators and teachers, journalists and taxpayers seem to act as if some schools were unusually effective. (*ibid.*: 91)

And, of course, it is demonstrable that schools do differ on important points.

Some schools consistently have higher achievement scores, lower dropout rates, more college-bound graduates, wealthier alumni and so forth. But these results cannot be entirely attributed to the schools themselves. Pupils bring different amounts of intellectual capital [hear the economists speaking!] to their educational experiences (*ibid.*: 91).

6

Schools can hardly pride themselves on making higher profits than their competitors if they have much more capital to work with in the first place. But of course they do pride themselves on that; everyone wants to be a millionaire, and envies those who are. That is the insistent problem concerning which schools are labelled effective.

Klitgaard and Hall made an important contribution to the debate by stating that researchers should be looking at the exceptions rather than the averages.

> Surprisingly little research [they observed] has addressed the question of unusually effective schools. Scholarly analysis has concentrated on the average effects of all school policies on educational outcomes (*ibid.*: 92-93).

Although stories about successes existed, the analyses dwelt on programmes rather than schools, on averages across the student population rather than on pockets of 'outliers' - the students or schools where the unusual, unexpected, extraordinary seemed to be occurring. Might there not be more profit in following up the differences rather than the commonalities? So their article is indicative of the change in attitudes which was occurring in the mid-1970s. More importantly, it is a harbinger for a change in methodology, away from large-scale statistical reviews and towards case studies, towards analyses of exemplars.

Another provocative finding emerged too, for they raised the point that the school may not be the best unit of analysis. Might there not be unusually effective year-levels or individual classes? Might there not be unusually effective teachers? And are there unusually effective regions / districts / areas (or school systems)?

Rutter study

So the late 1970s produced some significant studies aimed at showing that schools do make a difference to pupil achievement and at pin-pointing what characteristics were common to those schools which were shown to be effective. One of the most important of these studies was that conducted in twelve inner London schools over an eight-year period by Michael Rutter and a team from the University of London; the findings were published in 1979 as a book entitled *Fifteen Thousand Hours*. In a very useful introductory chapter dealing with previous research, Rutter

7

(1979: 1) concluded that:

> it does matter which school a child attends. Moreover, the
> results provide strong indications of what are the particular
> features of school organisation and functioning which make
> for success.

The Rutter study was unusual in that it was longitudinal over
eight years from 1970 onwards, dealt with secondary rather than
primary schools and subjected its data to careful statistical and
objective analysis. It concentrated on changes - increments - in
pupil achievement to demonstrate the school's quality (Rutter,
1979: 5). The school effects which the study team looked for
were high attendance (that is, less truancy), observed good
behaviour in school, the proportion of delinquent students at the
school and the school's results in public examinations. The team
found that some characteristics - like the age of the school build-
ings - had no effect on the outcome measures. The following
seemed to characterise the good schools (Maughan and Ouston,
1979: 18-24):

• Their lessons were work-oriented with time focused on subject
matter rather than on behaviour or administration
• Teachers worked and planned together, and there was strong
supervision and coordination by senior teachers
• Formal reward systems, public commendation, and immediate
feedback to students on good performance existed in the good
schools
• Students were expected to take responsibility for day-to-day
matters in their school - like looking after their own books and
facilities
• Homework was set and followed up. The good schools openly
emphasised academic performance and students were expected to
work hard and to succeed
• The good schools had a good atmosphere and ethos.

American studies

On the other side of the Atlantic, studies carried out in the USA
in the late 1970s were also developing an inventory of the charac-
teristics which seemed to be common to those schools judged to
be excellent or effective. D'Amico (1982: 61) has commented that

four studies laid the groundwork for most school improvement efforts, namely those by Brookover and Lezotte (1979), Edmonds and Frederickson (1979), Rutter (1979) and Phi Delta Kappa (1980), but one could also include Weber's of 1971 and Austin's Maryland study (1978). These studies seem to be among the most frequently cited.

Weber, 1971

The study by George Weber was conducted in 1971, and was principally concerned with how well inner-city children could be taught to read; effectiveness was therefore measured by a reading achievement test. The study concerned four city schools (two in New York, one in Kansas City and one in Los Angeles). The common factors he observed in the four schools making up his case studies were strong leadership, high teacher expectations of the students, an orderly purposeful school climate and (not surprisingly) strong stress on reading.

Austin, 1978

The study by Gilbert Austin (1978) in Maryland identified eighteen high-achieving and twelve low-achieving schools, found to be 'outliers' from the states' 'accountability data'; so his were 'case studies of exceptional schools' (Austin, 1979: 12). The factors which accounted for differences among schools were strong principals who participated in the instructional programme; high expectations held by those principals about themselves, the teachers and the students; and a school programme which emphasised intellectual rather than affective goals.

Brookover and Lezotte, 1979

The Brookover and Lezotte (1979) study was carried out on six 'improving' primary schools and two 'declining' schools in Michigan, using a case study method which allowed the researchers to conclude that the improving schools were likely to have principals who were curriculum leaders, who asserted themselves in that role, who maintained tough discipline and who assumed responsibility for evaluating pupil achievements.

Phi Delta Kappa, 1980

The Phi Delta Kappa study included case studies of eight exceptional primary schools as well as material from 59 other cases and about 40 research or evaluation studies; it also used eleven experts. Effective leaders, it claimed, were those who set goals and performance standards, and maintained a good working environment. They were 'enablers', giving teachers room to get on with their teaching, and marshalling political, parental and financial support for the school (Shoemaker and Fraser, 1981: 180).

Edmonds and Frederickson, 1979

Ronald Edmonds devoted more than a decade to school improvement. As senior assistant for instruction in the New York City public schools he developed one of the first formal School Improvement Projects in the USA. His research on effective schools began in 1974 with case studies of schools which were 'academically effective with the full range of their pupil population, including poor and minority children' (Willie, 1983: 4). He continued the research when he was a faculty member at Harvard from 1978 to 1981 and thereafter when he moved to Michigan State University. Willie concludes:

> Ron Edmonds' belief that pupil performance depends more on the character of the school than on the nature of the pupil's family captured the imagination of educators . . . [He] did not deny the significance of family background in the adaptation of children, but he gave greater weight to the school's response to the family background of children as the determining factor in pupil performance (*ibid.*).

Edmonds argued that there were five characteristics which seem to be 'the most tangible and indispensable' (Edmonds, 1979: 22) in those effective schools which have been the subject of detailed research. He described those features as follows:

• 'They have strong administrative leadership' (*ibid.*). Later he added the principal's 'attention to the quality of instruction' (Edmonds, 1982: 4)
• They have 'a climate of expectation in which no children are permitted to fall below minimum but efficacious levels of

10

achievement' (Edmonds, 1979: 4)
• 'The school's atmosphere is orderly without being rigid, quiet without being oppressive, and generally conducive to the instructional business at hand' (*ibid.*). Elsewhere he calls it an 'orderly, safe climate' (1982: 4)
• The school has 'a pervasive and broadly understood instructional focus' (*ibid.*), and he comments that the effective school is prepared to divert its energy and resources away from other areas in order to further that instructional objective (1979: *loc. cit.*). Indeed, he is quite precise about that instructional focus. 'Pupil acquisition of basic school skills takes precedence over all other school activities' (*ibid.*)
• Finally, effective schools ensure that 'pupil progress can be frequently monitored'. They have the means whereby 'the principal and the teachers remain constantly aware of pupil progress in relationship to instructional objectives' (*ibid.*).

We will return to a consideration of these essential characteristics to be found in a good school. First, however, we need to be aware of some of the factors which shaped the effective schools movement and which led it to take the approaches it did. There are four aspects deserving of comment.

Measuring effectiveness

First 'effectiveness' has always been an elusive term, and it must be clarified before we can understand the significance of what is meant by 'effective schools'. Chester Barnard's definition has been a robust one since he invoked it during the 1930s in his classic work *The Functions of the Executive*. 'An action is effective', he said, 'if it accomplishes its specific objective aim' (Barnard, 1938: 20). 'To effect' means 'to bring about, to accomplish'; thus to be effective, an action or an institution or an individual must bring something about, must accomplish something. Indeed, the term implies that the action is deliberate. You are effective if you set yourself a target and then hit it. Definition of a target is a prior requirement before it is possible to be effective.

There is a distinct difference between 'effectiveness' and 'efficiency'. Both derive from the same Latin roots, and both involve accomplishment, but the word 'efficient' also implies productivity, accomplishing an end without waste of effort or resources; it implies getting value for money.

11

So a school can be effective but also inefficient; it achieves its objectives but at too great a cost. A school can be efficient (that is, sparing in its use of resources) but not necessarily effective (that is, good at achieving results). A school which is efficient and effective, may not necessarily be excellent - in the sense of being the best among its peers. But most important of all, a school cannot be either efficient or effective unless it has objectives, targets to achievement. So there need to be at least some outcome measures which can be used to separate effective schools from the middling or ineffective ones.

How is one to demonstrate effectiveness, achievement of a sought outcome? The American studies used as performance indicators the national standardised achievement tests. Rutter, on the other hand, used absenteeism, behaviour in school, officially recorded delinquency and public examination results. Thus in the USA 'effectiveness' meant raising the average scores in the school in mathematics and reading. Put bluntly, school effectiveness usually meant literacy and numeracy. Judging the effectiveness of a school by this criterion should cause disquiet to educators.

As we well know, one way to raise the average scores is to exclude from the sample those students whose scores will fall below the average and will therefore pull the average down. This can be done by the simple device of advising the underachieving student to go elsewhere for his or her education; and it is sad to note that some schools have used this device over the years and have been judged excellent accordingly. Suppose we judged the effectiveness of a hospital on the proportion of its patients which it can discharge in good health; the way for a hospital to stay on top of the list would be for it to admit only those patients who were already reasonably healthy or who had a high probability of recovery. To retain its reputation for effectiveness, it would refuse to admit any patient who was terminally ill or whose illness presented the doctors with difficulties, and it would certainly not involve itself in the risky business of experimentation and medical research.

It was so easy to use this effectiveness measure in the late 1970s, when there was so much discussion on school achievement testing, on levels of literacy and numeracy, and so vigorous a campaign about getting back to the basics. 'Mastery learning' also grew up in this period. In the USA, state legislatures were mandating the basic competencies which every student must acquire before graduating from general education. It was in this context