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AUTHOR   Reynolds, David
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ABSTRACT
             An overview of the achievements and limitations in
British school effectiveness research is provided in this paper. In
contrast to educational research conducted in the United States,
school effectiveness and school improvement disciplines in Great
Britain have only begun to emerge within the last 13 years. Topics
discussed in this study include the effect of school size on
students, differential effectiveness, the consistency of
effectiveness over time, school effectiveness characteristics, the
future of school effectiveness research in Great Britain, and the
lack of integration between school effectiveness research and school
improvement practice. A conclusion is that school effectiveness
findings have been poorly translated into British school improvement
programs. Both disciplines need each other, in that school
improvement programs offer empirical tests of school effectiveness
research, and school effectiveness research can provide sensitive
descriptions of good practice. (98 references) (LMI)

A REVIEW OF ACHIEVEMENTS AND LIMITATIONS IN BRITISH SCHOOL EFFECTIVENESS RESEARCH

David Reynolds
School of Education
University of Wales College of Cardiff
Cardiff
Great Britain

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A REVIEW OF ACHIEVEMENTS AND LIMITATIONS IN BRITISH SCHOOL EFFECTIVENESS RESEARCH

D Reynolds

It is important to make clear at the outset that only in the last 12 or 13 years has a body of research findings in this area begun to emerge in Britain, a marked contrast with the United States, for example, where both school effectiveness and school improvement have been large and established disciplines from the mid 1970s onwards. There is not space to consider the detailed reasons for this here (see Reynolds, 1985) but a few explanations for this retarded development may be instructive:

(i)   There had been some difficulty in the past in gaining access to schools in Britain for comparative research purposes, as shown by the unhappy experience of Michael Power (1967, 1972) in Tower Hamlets in which research access to schools was refused after large differences were found in schools' delinquency rates.

(ii)   Early research findings in the United States (Coleman, 1966; Jencks et al, 1971) and in Britain (Plowden Committee, 1967) showed very limited school effects on academic outcomes and created a climate of professional educational opinion which held that variation in individual school organisations had minimal effects upon pupils' development.

(iii)   The absence of reliable and valid measures of institutional climate, again in marked contrast to the situation for researchers in the United States (see details of the OCDQ and OHI questionnaires in Hoy et al, 1991 for example) hindered the understanding of within-school processes and the measurement of the characteristics of effective organisational processes.

(iv)   The popularity in Britain of determinist sociology of education, as reflected in the work of Bowles and Gintis (1976) and of Bourdieu and Passeron (1977), led to a sociological neglect of the school as an institution independent from the wider society that lasted throughout the 1970s and early 1980s, with the result that the pioneering work into the independent effects of school organisational processes of Hargreaves (1967) and Lacey (1970) had no subsequent elaboration or development until the studies of Ball (1981) and Burgess (1983) published over a decade later.

(v)   The intellectual hegemony of traditional British educational research, with its psychologically determined stress on the primacy of individual, family and community based explanations for children's `educability', created a professional research climate somewhat hostile to school effectiveness work, a hostility which showed in some of the critiques of the Rutter et al (1979) study Fifteen Thousand Hours (see

for example those of Acton, 1980, and Goldstein, 1980), and in some of the reception given to our early work from South Wales, which for example Musgrove (1981) called "widely applauded but highly implausible"!

Indeed, when research findings were generated which showed the independence of children from the various socio-psychological influences of family background and environmental factors, the evidence was tailored to fit with the basic tenets of the paradigm. An example of this is the publication of the National Child Development Study of 1958, (Davie et al, 1972) where although great emphasis was put in the study publications upon the dependence of the child upon his or her environment, the excellent reading performance of the Scottish children who came from the worst housing conditions in the sample showed clearly the independence of children from their outside school environment. Attention was not drawn to this finding.

Whilst school effectiveness research has begun to gain momentum later in Britain by comparison with some other countries then, the last decade or so has seen the growth of a substantial knowledge base in the field. Although that growth in knowledge has produced as many unanswered questions as questions answered, there is a sense of a genuine intellectual progression in the body of knowledge and in the methodological sophistication of the work over time, as we will hopefully see below as we investigate some of the key areas and questions that work in the field has illuminated.

Do Schools Have Effects Upon Pupils?

At one level answering this question is not difficult, since we have good evidence that the amount of schooling or instruction consumed by pupils will have an effect upon pupils' academic and social development. Fogelman(1983) noted that school attendance had an independent influence upon levels of childrens' attainments and patterns of behaviour, and that children's attainment was related to the quantity of schooling they had received (Fogelman, 1978), particularly in such school-dependent subjects as Mathematics.

Whilst schools clearly matter in affecting development, the question above is normally held to refer to a slightly different issue - whether variation in the quality of their educational institutions has effects upon pupils. The regression analyses conducted for the Plowden Committee, (1967) suggested that there was little differential effect of schools on pupils and that parental factors such as social class and particularly parental attitudes were the key determinants. In the United States, it was the uniformity of schools' organisational effects that was emphasised by Coleman (1966) and Jencks et al (1971).

The early British school effectiveness studies (Reynolds, 1976; Reynolds and Sullivan, 1979; Rutter et al, 1979) sought to show that the outcomes of individual schools were not determined by the academic and social background of their intakes of pupils, yet there were in many people's minds

doubts as to whether enough detailed information on the intakes of pupils had been collected to prov that the large differences in the outcomes of the schools studied did not only reflect the effects of unmeasured differences in the quality of the intakes of pupils.

More recently, however, studies which have collected a very wide range of data concerning the intakes into different schools have still found large differences in the outcomes of the schools, even when allowance has been made for differences in intakes. The recent ILEA Junior School Project of Mortimore et al (1988) has data on the attainment, social class, sex and race of pupils on entry to their junior schools and still finds that this detailed individual information is a poor predictor of what progress the children will make over their next four years, without the addition of further data on the organisational character of their schools. Both Smith and Tomlinson (1989) and Nuttall et al (1989) have recently reported substantial variations between schools in their effectiveness, even after multiple factors were measured relating to the pupil intakes.

What is the Size of Schools' Effects on Their Pupils?

Early studies showed - in the views of their authors - very large school effects. Power et al (1967) reported a twentyfold difference in the delinquency rates of London schools, a difference which he argued was virtually independent of catchment area characteristics, and Gath (1977) reported substantial variation in the child guidance referral rates of Oxfordshire schools. Reynolds (1976) reported large differences between schools in their effectiveness, which were again argued to be virtually completely due to the effects of the schools themselves, since there was evidence that the schools were taking from similar catchment areas. The variation in delinquency rates across the schools was three-fold and in attendance rates was from 90 per cent attendance at the `top' school to only 77 per cent at the `bottom' school. The Rutter team (1979) also emphasised the scale of their school effects, and the early work of Gray (1981), using already available local education authority databases, produced an estimate that the `competitive edge' possessed by the most effective fifth of state secondary schools (as against the least effective fifth) amounted to approximately the equivalent of $1\frac{1}{2}$ of the old `O' level public examination passes per child. Substantial school effects on pupils' examination results were also reported by Gray et al (1983) in their analysis of data from secondary schools in Scotland and by Brimer et al (1978) using examination passes as their measurement of effectiveness.

Indeed, the latter study of variation in the public examination performance of pupils at the old 'O' and the still used 'Advanced' level examinations showed some of the highest estimates of 'school effects' ever reported in the international literature, with a range of between-school variation of from 5 per cent to 42 per cent in 11 'O' level subjects, after allowing statistically for the effects of pupils' family backgrounds. In 8 of the 11 subjects, 80 per cent of the between school differences were further explicable

by a range of data that had been collected on school and instructional variables such as teaching methods, school curricular provision and teacher beliefs.

After these early studies, however, came a large number of British studies in the 1980s that showed much smaller school effects, although these studies were in turn followed by a further wave of research in the last few years which suggests the existence of quite substantial school effects. The earlier research suggesting only small effects appeared as follows:

(i)   Comparisons of the academic 'outcomes' of local education authorities showed that social, economic and environmental factors accounted for up to 80 per cent of the variation in pupil academic attainment (Department of Education and Science, 1983, 1984; Gray, Jesson and Jones, 1984).

(ii)   Comparisons of school systems which were selective with those which were comprehensive showed minimal differences, as shown by the National Children's Bureau studies (Steedman, 1980, 1983) and as shown in the work from the Scottish Education Data Archive (Gray et al, 1983).

(iii)   Comparisons of the outcomes of individual schools suggested small differences in effects, as shown by the Scottish data of Willms (1986) in which schools only explained two per cent of the variation in the academic achievement of pupils. The work of Gray, Jesson and Jones (1986) suggested also much more limited school effects than their earlier study, with the difference between the most effective and least effective schools being only one very low grade CSE examination pass in size. The seminal study of Aitken and Longford (1986) also reported that only two per cent of the variance in pupil attainment was due to the effects of school.

(iv)   What appeared to be important in many studies was the 'balance' of the pupil intake into schools and the catchment area's effect in raising or lowering pupils expected performance levels, as in the findings from Willms (1986) noted above where there were large school contextual effects upon performance in English and in Mathematics. Willms (1985) also noted that students of average ability in high ability schools scored more than a full examination grade higher than comparable students in schools where the majority were pupils of lower ability. It was not so much the organisation of the school that was seen as important in the mid 1980s as the characteristics of the pupil group, in terms of affecting outcomes.

More recent work, however, has begun to support the earlier suggestions of large school effects. Cuttance's (1991) recent Scottish data suggest that up to 8 per cent of the variance in pupils' examination attainments is school related and that

the difference between the 'most effective quarter' and 'least effective quarter' of schools is of the order of two of the old 'O' level grades. Reynolds et al (1987) reported large school system effects upon pupils, in particular a major deficiency in the non-academic outcomes of comprehensive schools when their outcomes were compared with pupils from the selective system. Mortimore and his colleagues (1988) also report substantial school effects not upon attainment <u>at a point in time</u> but upon <u>progress over time</u> where, in the case of mathematics for example, the influence of the school was ten times more important than the influence of the home. Even in reading, which is likely to be more dependent upon the general cultural background of the child's family, the school's influence on pupil progress was four times greater than that of the child's home.

Smith and Tomlinson's (1989) study also shows large differences in the effects of schools, with for example a child of above average ability who managed to obtain an old CSE grade 3 in English at one school obtaining an old 'O' level grade B in the same examination at another school. For certain groups of pupils, in fact, the variation in examination results between individuals in different schools was as much as one quarter of the total variation in examination results. Both Tizard et al (1988) and Nuttall et al (1989) have also recently reported large school effects, with the former based upon a sample of pupils in infants schools and the latter based upon the examination performance of over 30,000 students drawn from 140 schools, although Gray et al (1990) have recently generated estimates of variation between schools that are at the lower end of the ranges reported above.

Are Schools Equally Effective Upon Different Aspects of Pupil Development?

The early work of Rutter et al (1979) and of Reynolds (1976) reported high inter-correlations between schools' academic effectiveness and their social effectiveness as measured by attendance and delinquency rates. However, more recent work has suggested that schools may be differentially effective in different areas. Gray et al (1983) showed that the social outcomes of schooling such as pupils' liking for school or school attendance rates were partially independent of schools' academic outcomes, as did the National Children's Bureau research in the area of comprehensive/selective system comparisons (Steedman, 1980,1983), in which the comprehensive schools were performing academically as well as those of the selective system, but were under-performing socially in comparison. Our own work (Reynolds et al, 1987) shows small academic, but large behavioural and attitudinal, differences in the effectiveness of the same two systems. The ILEA study (Mortimore et al, 1988) shows that schools can be differentially effective upon their pupils' academic and social outcomes and although much of the discussion of the findings of the study has concentrated upon a group of 14 schools which were effective on both academic and social outcomes, in fact there is almost a complete independence of schools' effectiveness in the various academic and social areas of development. Galloway's (1983) study of four schools

with very low levels of behavioural problems is also illuminating in this respect, since one of the schools possessed also very low levels of academic achievement, a result no doubt of the imposition of a policy of minimal demands on the pupils!

Even if we look only at one discrete area of schools' effectiveness - the academic outcomes from schooling - there is substantial variation in the Mortimore et al (1988) study between schools' effectiveness on one academic outcome like oracy (heavily school influenced) and reading skills (less heavily school influenced). Smith and Tomlinson (1990) also report substantial variation in the departmental success rates for different schools in public examinations, with these differences not just being a function of the overall effectiveness of the individual schools. In fact, schools are reported in this recent study as differing more in their achievement in particular subjects than in the aggregate, since out of the 18 schools the school that was 'first' overall on mathematics attainment (after allowances had been made for intake quality) was 'fifteenth' in English and since the school that was 'second' in Mathematics achievement came 'tenth' in English achievement.

The work of Fitzgibbon and colleagues (Fitzgibbon, 1985; Fitzgibbon et al, 1989;) also shows a substantial variation between the effectiveness of different schools' subject departments of English and Mathematics.

Are Schools Consistently 'Effective' or 'Ineffective' Over Time?

Early work suggested that schools were consistent over a number of years in their outcomes (Reynolds, 1976; Rutter et al, 1979), although of course this is not the same as being consistent in their effectiveness.

More recently it seems that schools can vary quite markedly in their performance over time, as originally noted by Goldstein, (1987). Nuttall et al (1989) note that their sample of 140 London schools exhibit unreliability in their performance over the period 1985-1987, and conclude sensibly that their analysis

> " ... gives rise to a note of caution about any study of school effectives that relies on measures of outcome in just a single year, or of just a single cohort of students. Long time series are essential for a proper study of stability over time (ibid, p.775)".

The Scottish data analysed by Willms (Willms and Raudenbush, 1989) also suggest a picture of schools as changing, dynamic and relatively unstable enterprises, which are changed by children as they change the children themselves. Statistical estimates of the correlation between school effects over time vary from .59 to .96 to .87, depending on the method used, but it is clear that there is more 'movement' in school performance than might have been supposed from the early work in this field.

Do Schools Have the Same Effects Upon all Pupils

Early work (Reynolds, 1982; Rutter et al, 1979) suggested that a school was equally effective or ineffective for all types of pupil within the school, irrespective of their social background or their ability.

More recently, however, Aitken and Longford (1986) found that schools can differ in their regression line slopes (the line reflecting the statistical relationship between their intakes and outcomes), suggesting that some may be more effective for pupils of a certain ability level than for others. Also, Cuttance (1991) notes that advantaged pupils from high socio-economic status homes are more affected by their schools than pupils from a disadvantaged background and Gray, Jesson and Jones (1986) note that high ability pupils were more affected by their schools than those of lower ability. McPherson and Willms (1987) show that the effects of comprehensivisation in Scotland varied considerably according to the social class of pupils, with working class pupils gaining more over time than others. All these more recent studies suggest that schoo⁻ may not have consistent organisational effects upon different kinds of pupils, a finding supported by the hints in Willms and Cuttance's (1985) data of the existence of a few schools that might have been effective for high ability children and a few for lower ability children, and vice versa.

Using the techniques made possible by the adoption of a multi-level modelling methodology, Nuttall et al (1989) show large differences for different types of pupils in the relative effectiveness of schools in London. If we take the experience of abler pupils (or VR Band One) and the experience of the less able pupils (or VR Band Three), in some schools the difference in the groups' performances as they leave school is as small as 11 VRQ points and in others as large as 28 points, even after adjusting for differences in the pupils' abilities at the time of joining their schools. In this study, the performance of schools also varies in the ways that they impact upon boys and girls and in their effects upon pupils of different ethnic groups, with some schools narrowing the gaps between these different groups over time and some widening the gaps in both instances. In Smith and Tomlinson's (1989) study there is also evidence of the differential effects of schools upon different pupils, particularly on those of both above average and below average prior attainment, but although the effects were statistically significant they were substantively smaller than those of Nuttall et al above.

Gray et al, (1990) report different findings however, in that in a wide range of local education authorities they could find little evidence of any differential effectiveness of schools. As they note themselves 'What is more surprising is the similarity of our findings across data sets of very different characteristics. We found this to be the case for those (LEAs) with large numbers of pupils in a relatively large number of schools and with prior attainment as an explanatory measure. We also found similar results with small numbers of pupils in a smaller set of schools, again using prior attainment (ibid, p.150).

On the issue of school differential effects - as on many other issues that have begun to attract researchers' attention over the last 12 or 13 years - the jury is still clearly out!

What Are The Characteristics of Effective School Organisations?

It is important to note that we know at present far more about which factors are associated with academic effectiveness than about those factors which are associated with social outcomes. Rutter et al (1979) identified over 20 factors associated with academic effectiveness but only seven associated with social effectiveness as measured by a school's possession of a low delinquercy rate. The recent ILEA study of Mortimore et al (1988) found only six school factors associated with behavioural effectiveness (such as low rates of misbehaviour) and 13 school factors associated with academic effectiveness judged in terms of good reading scores, even though the schools' overall effect sizes were the same on the two different outcomes. Our relative ignorance of the factors making for social effectiveness is also unlikely to be remedied by work from abroad, since virtually all the North American studies (with the notable exception of Brookover et al, 1979) look only at academic effectiveness (see reviews in Anderson, 1982; Purkey and Smith, 1983 and Levine (1991).

It is also important to note that we have only three studies in Britain which have been able to systematically collect data on a wide range of school processes in effective and ineffective school organisations, two on processes in secondary schools (Rutter et al, 1979; Reynolds, 1976, 1982) and one on effective primary school processes (Mortimore et al, 1988), although as we will see later there are a number of small scale studies which focus upon particular aspects of school organisation.

The Rutter study found that certain factors were not associated with overall effectiveness, amongst them class size, formal academic or pastoral care organisation, school size, school administrative arrangements (i.e. whether a school was split site or not), and the age and size of school buildings.

The important within school factors determining high levels of effectiveness were argued by Rutter (1980) to be:

(i)   The balance of intellectually able and less able children in the school, since when a preponderance of pupils in a school were likely to be unable to meet the expectations of scholastic success, peer group cultures and an anti-academic or anti-authority emphasis may have formed.

(ii)   The system of rewards and punishments - ample use of rewards, praise and appreciation being associated with favourable outcomes.

(iii) School environment - good working conditions, responsiveness to pupil needs and good care and

decoration of buildings were associated with better outcomes.

(iv) Ample opportunities for children to take responsibility and to participate in the running of their school lives appeared conducive to favourable outcomes.

(v) Successful schools tended to make good use of homework, to set clear academic goals and to have an atmosphere of confidence as to their pupils' capacities.

(vi) Outcomes were better where teachers provided good models of behaviour by means of good time-keeping and willingness to deal with pupil problems.

(vii) Findings upon group management in the classroom suggested the importance of preparing lessons in advance, of keeping the attention of the whole class, of unobtrusive discipline, of a focus on rewarding good behaviour and of swift action to deal with disruption.

(viii) Outcomes were more favourable when there was a combination of firm leadership together with a decision-making process in which all teachers felt that their views were represented.

Our own work in South Wales, although undertaken in a group of secondary modern schools and in a relatively homogeneous former mining valley that was very different in its community patterns to the communities of Inner London, has produced findings that in certain ways are parallel to those of Rutter. We studied the school processes of eight secondary modern schools, each of which was taking the bottom two-thirds of the ability range from clearly delineated catchment areas. We found substantial differences in the quality of the school outputs from the eight schools, with a variation in the delinquency rate of from 3.8 per cent of pupils delinquent per annum to 10.5 per cent, in the attendance rate of from 77.2 per cent average attendance to 89.1 per cent and in the academic attainment rate of from 8.4 per cent proceeding to the local technical college to 52.7 per cent proceeding on to further education.

Our early analysis (Reynolds, 1976) of our intake data showed no tendency for the schools with the higher levels of performance to be receiving more able intakes on entry. In fact, high overall school performance was associated with lower ability intakes as measured by the Ravens Standard Progressive Matrices test of non-verbal ability. Although subsequent full analysis of our full range of intake data revealed a tendency for the higher performance schools to have intakes of slightly higher verbal and numerical ability, the personality variables for these schools' intakes (higher extroversion and higher neuroticism scores) suggested, on the contrary, a poor educational prognosis. Although our sample sizes were too small to permit the use of more than simple statistical methods, and although the study was cross sectional in that data was collected from different pupils at intake and outcome, the intake data made a powerful case for the existence of substantial school effects.

Detailed observation of the schools and the collection of a large range of material upon pupils' attitudes to school, teachers' perceptions of pupils, within school organisational factors and school resource levels revealed a number of factors within the school that were associated with more 'effective' regimes. These included a high proportion of pupils in authority positions (as in the Rutter study), low levels of institutional cont.ol, positive academic expectations, low levels of coercive punishment, high levels of pupil involvement, small overall size, more favourable teacher pupil ratios and more tolerant attitudes to the enforcing of certain rules regarding 'dress, manners and morals'.

Crucially, our observations revealed differences between the schools in the ways that they attempted to mobilise pupils towards the acceptance of their goals, differences that were associated with their effectiveness. Such differences seemed to fall within the parameters of one or other of two major strategies, 'coercion' or 'incorporation'. Five more effective schools that took part in the research appeared to be utilising the incorporative strategy to a greater (three schools) or lesser (two schools) extent. The major components of this strategy were twofold; the incorporation of pupils into the organisation of the school and the incorporation of their parents into support of the school. Pupils were incorporated within the classroom by encouraging them to take an active and participative role in lessons and by letting them intervene verbally without the teacher'. explicit directions. Pupils in schools which utilised this strategy were also far more likely to be allowed and encouraged to work in groups than their counterparts in schools utilising the coercive strategy. Outside formal lesson time, attempts were made to incorporate pupils into the life of the school by utilising other strategies. One of these was the use of numbers of pupil prefects and monitors, from all parts of the school ability range, whose role was largely one of supervision of other pupils in the absence of staff members. Such a practice appeared to have the effect of inhibiting the growth of anti-school pupil cultures because of its effects in creating senior pupils who were generally supportive of the school. It also had the latent and symbolic function of providing pupils with a sense of having some control over their within-school lives; the removal of these symbols also gave the school a further sanction it could utilise against its deviants. Attempts to incorporate pupils were paralleled by attempts to enlist the support of their parents, by the establishment of close, informal or semi-formal relations between teachers and parents, by the encouraging of informal visits by parents to the school and the frequent and full provision of information to parents that concerned pupil progress and governor and staff decisions.

Another means of incorporation into the values and norms of the school was the development of interpersonal rather than impersonal relationships between teachers and pupils. Basically, teachers in these incorporative schools attempted to 'tie' pupils into the value systems of the school and of the adult society by means of developing 'good' personal relationships with them. In effect, the judgement was made in

these schools that internalisation of teacher values was more likely to occur if pupils saw teachers as `significant others' deserving of respect. Good relationships were consequent upon minimal use of overt institutional control (so that pupil behaviour was relatively unconstrained), low rates of physical punishment, a tolerance of a limited amount of `acting out' (such as by smoking or gum chewing for example), a pragmatic hesitancy to enforce rules which may have provoked rebellion and an attempt to reward good behaviour rather than punish bad behaviour. Within this school ethos, instances of pupil `deviance' evoked therapeutic rather than coercive responses from within the school.

In contrast, schools which utilised the `coercive' strategy to a greater or lesser extent (three ineffective schools) made no attempt to incorporate pupils into the authority structure of the school. Furthermore, these schools made no attempt to incorporate the support of parents, because the teachers believed that no support would be forthcoming, and they exhibited high levels of institutional control, strict rule enforcement, high rates of physical punishment and very little tolerance of any `acting out'. The idea, as in the incorporative schools, of establishing some kind of `truce' with pupils in these schools was anathema, since the teachers perceived that the pupils would necessarily abuse such an arrangement. Pupil deviance was expeditiously punished which, within the overall social context of these schools, was entirely understandable; therapeutic concern would have had little effect because pupils would have had little or no respect for the teacher-therapist.

The most likely explanation of the choice of different strategies was to be found in the differences (in the two groups of schools) in the teacher perceptions of their intakes. In schools which adopted a `coercive' strategy, there was a consistent tendency to over-estimate the proportion of pupils whose background can be said to be `socially deprived' - in one such school, teachers thought such children accounted for 70 per cent of their intake whilst in one of the incorporative schools teachers put the proportion only at 10 per cent - and a consistent tendency to under-estimate their pupils' ability. In these coercive schools, teachers regarded pupils as being in need of `character training' and `control' which stemmed from a deficiency in primary socialisation, a deficiency which the school attempted to make good by a form of custodialism. Such perceptions were germane seeds for the creation of a school ethos of coercion.

In addition to research on secondary school processes, characteristics of effective primary school organisations have been identified that are associated with high performance in cognitive areas such as reading and writing and in non-cognitive areas such as low truancy levels (Mortimore et al, 1988). Mortimore's research identified a number of schools which were effective in both academic and social areas, which possessed the following characteristics:

(i)   Purposeful leadership of the staff by the head. This occured where the head understood the school's needs,

is actively involved in it but is good at sharing power with the staff. He or she did not exert total control over teachers but consulted them, especially in decision making such as spending plans and curriculum guide-lines.

(ii)   Involvement of the deputy head. Where the deputy was usually involved in policy decisions, pupil progress increased.

(iii)   Involvement of teachers. In successful schools, the teachers were involved in curriculum planning and played a major role in developing their own curriculum guide-lines. As with the deputy head, teacher involvement in decisions concerning which classes they were to teach was important. Similarly, consultation with teachers about decisions on spending was important.

(iv)   Consistency among teachers. Continuity of staffing had positive effects but pupils also performed better when the approach to teaching was consistent.

(v)   A structured day. Children performed better when their school day was structured in some way. In effective schools, pupils' work was organised by the teacher, who ensured there was plenty for them to do yet allowed them some freedom within the structure. Negative effects were noted when children were given unlimited responsibility for a long list of tasks.

(vi)   Intellectually challenging teaching. Not surprisingly, pupil progress was greater where teachers were stimulating and enthusiastic. The incidence of "higher order" questions and statements was seen to be vital - that is where teachers frequently made children use powers of problem-solving.

(vii)   A work-centred environment. This was characterised by a high level of pupil industry, with children enjoying their work and being eager to start new tasks. The noise level was low, and movement around the class was usually work-related and not excessive.

(viii) A limited focus within sessions. Children progressed when teachers devoted their energies to one particular subject area and sometimes two. Pupil progress was marred when three or more subjects were running concurrently in the classroom.

(ix)   Maximum communication between teachers and pupils. Children performed better the more communication they had with their teacher about the content of their work. Most teachers devoted most of their time to individuals, so each child could expect only a small number of contacts a day. Teachers who used opportunities to talk to the whole class by, for example, reading a story or asking a question were more effective.

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(x)   Thorough record-keeping. The value of monitoring pupil progress was important in the head's role, but it was also an important aspect of teachers' planning and assessment.

(xi)   Parental involvement. Schools with an informal open-door policy which encouraged parents to get involved in reading at home, helping in the classroom and on educational visits, tended to be more effective.

(xii)   A positive climate. An effective school has a positive ethos. Overall, the atmosphere was more pleasant in the effective schools for a variety of reasons.

Whilst there are some clear differences between the three British studies in their respective findings, the degree of communality in the findings on the factors associated with organisational effectiveness is quite impressive. However, it is of course important not to over-emphasise the extent of the agreement between the various British studies and between these British studies and the international literature. Rutter et al (1979), for example, find that high levels of staff turnover are associated with secondary school effectiveness, a completely counter intuitive finding that is not in agreement with the Reynolds' (1976, 1982) findings of an association between high levels of staff turnover and ineffectiveness. Similarly, the consistent American findings on the link between frequent monitoring of pupil progress and academic effectiveness is not in agreement with the findings of Mortimore et al (1988) that pupil monitoring which involves frequent testing of children is a characteristic of ineffective schools.

In addition to the three studies outlined above, which all possess data on a comprehensive range of school and to a lesser extent classroom processes, there are a number of further studies which have data on a more limited range of school data. A clutch of studies on difficult or deviant pupils have appeared in the last few years, with Maxwell (1987) suggesting high levels of suspension from school arise from schools where staff groups do not believe in their capacity to affect this problem. McManus (1987) related school suspension rates and school organisational policies on 'pastoral care', showing that an incorporative, relationship-based approach minimised pupil problems. McLean (1987) also suggested a preventive, child centred approach minimised pupil disruption and Gray and Nichol (1982) generally replicated the findings of Rutter, and the Reynolds findings on effective schools' rule enforcement policy, in their study of two differentially effective secondary schools in disadvantaged communities.

It is important to conclude this section on those factors associated with school effectiveness by pointing out the existence of a further large body of knowledge which exists to inform debate, namely the reports generated by the British national school inspectorate or HMI. Their publications based upon visits to individual schools may leave much to be desired in terms of their validity, since HMI tend to assess schools'

not in the context of the schools' local communities and catchment areas (Gray and Hannon, 1986). However, HMI have in recent years attempted to make assessments of which organisational factors promote school effectiveness across the school cases which they have visited, which are reported in documents ranging from the original Ten Good Schools study (Department of Education and Science, 1977) to the more recent observations on schools that promote good behaviour (Department of Education and Science, 1987) and to a major study of secondary school practice based on a sample of 185 schools (Department of Education and Science, 1988). The latter's summary of the characteristics of an effective school is interesting when compared to the academic research reviewed above:

> "The report sets out the characteristics of effective schools. These were schools well-led by heads with the capacity to stimulate others and who had a breadth of vision about education together with practical ability to translate this into classroom practice for their pupils. They were supported in this by others who had clearly delegated responsibilities.
>
> In such schools effective communication and confident relationships enabled teachers to contribute to the formulation and implementation of school policies. Effective schools had clear goals and objectives which were often written down for staff, pupils, parents and governors - the production of these goals and objectives had been the result of discussion by all staff.
>
> Effective schools felt it important to help all pupils to reach the highest academic standards of which they were capable. Most lessons in these schools took place in an atmosphere which was relaxed but orderly and firm, with good relationships and clear encouragement to pupils to express their views and develop their ideas in talking with each other and with the teachers.
>
> Effective schools fostered their pupils' personal and social development. They had well qualified staff with an appropriate blend of experience and expertise who were well deployed within the school. Strengths in this respect were developed through, for example, participation in in-service training. (DES Press Release, 26 July 1988)

The Future of School Effectiveness Research in Britain

Detailed prescriptions of the research agenda that remains to be tackled are available elsewhere (Reynolds, 1991; Rutter, 1983; Reynolds and Reid, 1985; Gray, 1982) and elsewhere in recent papers by Murphy (1991) and Mortimore (1991). We have only space to consider the more urgent needs here, in terms of the development of the knowledge base on effective organisational practices.

(i)   Clearly the issues concerning the size of school effects, their consistency over time, their consistency

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consistency for different types of pupils and the applicability of findings across international settings need further elucidation through research.

(ii)   We need research undertaken in more typical samples of schools, (since early British work has been exclusively urban, has been undertaken either in London or in South Wales and has been based in highly disadvantaged communities) to see if the same factors are associated with effectiveness in different social and geographical areas.   Larger sample sizes (like Mortimore's 50 schools rather than Reynolds' eight or Rutter's 12) are also needed.   More studies of primary school effectiveness are also needed, particularly since the research literature on school effectiveness from the Netherlands and the United States shows a heavy concentration upon research in elementary schools.

(iii)   Some British studies, particularly those from the Centre for Policy Studies (Cox and Marks, 1983, 1985), have been highly defective in their measurements of pupil intakes into schools, which may have led to invalid assumptions being made about schools or systems of education being more effective simply because full allowance had not been made for the intake quality of their pupils. Analyses based only on measures of home background (as with Cox and Marks above) or on limited measures of background and ability (as with Rutter et al, 1979) are unlikely to be adequate. What is needed in the future are multiple indicators of intake, covering a range of pupil academic and social factors, as in the Mortimore et al (1988) study.

(iv)   'Means-on-means' analyses, where school averages for all pupils are used, as in the early Reynolds' (1976, 1982) work, make it impossible to analyse the school experience of different groups of pupils and also lowers explanatory variance.   Individual pupil level data rather than group data is now widely agreed to be necessary both on intake and at outcome (Aitken and Longford, 1986) to permit the appropriate use of multi level techniques of analysis, which can nest pupils within classrooms and classrooms within schools, and the schools within the context of outside school factors.

(v)   Further work is required into the school processes that are associated with effectiveness. We are still not completely sure which processes are associated with effectiveness, and also how the school organisational factors have their effects, through their effects upon pupil self-concepts or by direct modelling for example? We need to know what creates the organisational factors, which may require a degree of historical study since there are those who insist that what makes an effective school is in part the history of being an effective school. We need to know also whether the effective organisational factors are equally effective with very different types of teacher personality or

contrast whether the person makes a difference to the
effectiveness of the methods. Simply, the
`person/method' interaction and the `person/method' fit
are both areas that will undoubtedly repay further
investigation. Most important of all, we need to
investigate <u>which</u> of the school organisational features
are the most important and which factors (like the
headtea her perhaps) may determine other factors. No
existing British studies have attempted to do this at
the present time.

(vi)   Areas that have been neglected by the existing body of
British research need future attention. The leadership
or management style of the headteacher is seriously
neglected in both the British secondary school studies,
since in both cases the researchers felt that it was
politically impossible in the mid +ㄱ late 1970s to give
this factor the attention it poteutially deserved. The
content of the curriculum, the books and materials
used, its relevance to children's culture and the world
view the curriculum imparts have also received minimal
attention, no doubt because of the difficulty of
classifying and measuring curriculum `knowledge'
(Wilcox, 1985) and no doubt because of the destruction
of the utility of Bernstein's attempted classification
(King, 1983) of curriculum and organisation. The
interesting New Zealand findings of Ramsay et al (1982)
concerning the distinctive curriculum processes that
existed within effective schools remain unexplored in
Britain and in the Netherlands and in the United States
also.

The classroom environments or instructional processes
of effective school organisations have also not been
studied in detail in either of the secondary school
studies (although the Mortimore study advances our
knowledge of primary classrooms), an omission which
hampers the integration of the bodies of knowledge on
effective schooling and effective instruction. The
pastoral or welfare aspects of education and the
within-school practice and ethos of care and guidance
are also not areas that have received sufficient
attention.

Our last serious omission in terms of areas to be
studied is the actual administration, management and
decision taking process within schools, an area where
school effectiveness work would clearly benefit from a
closer knowledge of the literature on management and
decision taking in non-school organisations. In part
because of the neglect of the headteacher's role in the
two secondary studies, we are still unclear about the
precise nature of the leadership to be found in
effective school organisations, although the portrait
to be found in the recent Mortimore et al (1988) study
of the effective headteacher as both a purposive leader
and at the same time also as concerned to involve staff
in the running of the school takes our knowledge some
considerable way further. What is the departmental or

organisation, or the relations with outside supportive agencies, or the appraisal process, or the school self-evaluation process in use? What is the actual mechanics of the administration in terms of <u>behaviours</u> as well as reified organisational <u>structure</u>? In these key areas - very important for practitioners or policy makers who might want to directly attempt to change school practice - school effectiveness work is still deficient in knowledge.

(vii) To improve our understanding of the complex interaction of persons, methods and processes that generate an effective school we need to undertake greater use of case study and qualitative methods that will enable richer descriptions of processes to be made. This is particularly important if the school effectiveness work is to be made more accessible to practitioner and policymaker communities in Britain, since the rich description of practice that they may need is currently absent.

(viii) The 'contexting' of a school's effectiveness, in terms of an appreciation of how 'what works' may vary according to the circumstances in which individual schools may exist, is another topic of great importance. We have no analysis in Britain equivalent to that in the United States of Brookover et al, (1979), who studied how effective schools in different types of catchment areas were somewhat different in their organisational characteristics and in their 'phasing' of how they developed to become effective. We have also not been able in Britain to participate in the 'cutting edge' debates about sensitivity to context that are a central feature of discourse in the field in the United States (Hallinger and Murphy, 1986; Wimpelberg et al, 1989). The British tendency to study homogeneous, socially disadvantaged samples of schools has its costs.

The above list is of course not an exhaustive one. The theories of the 'middle range' variety that can move the field away from the level of simple empiricism are absent. Some variables may have been too easily dismissed from study because of out-of-date assessments of their usefulness - an example would be the neglect of school resources that followed the generally negative findings as to their salience in the 1970s and 1980s but which may now be inappropriate if the differentiation between schools in their resource levels has increased markedly. Social outcomes from schools, which may be independent from academic outcomes, clearly need further attention, even though British school effectiveness work has conceptualised and measured to a greater extent within this area than all other nations. Such outcomes may partially determine, as well as being partially determined by, the academic outcomes of schooling. Finally, the effects of variation in outside school factors, like the British local education authorities, have not been adequately developed after promising initial work (Gray and Jesson, 1987; Woodhouse and Goldstein, 1988; Cuttance (1991); Willms, 1987), no doubt

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politically sensitive issues and in part no doubt because of
the tendency of British research to 'cut off' schools from
their surrounding environments, which developed as a reaction
to the earlier highly prevalent over-estimates of the effects
of outside school environments upon school performance.   All
these, and many other areas, await our attention.

School Effectiveness Research and School Improvement Practice

In the United States, a recent survey by the US General
Accounting Office (1989) found that over half the school
districts were using elements of what can loosely be called
'effective schools research knowledge', and the United States
has seen numerous projects which have aimed to test out the
usefulness of the knowledge base in generating school
improvement (eg McCormack-Larkin, 1982).   The literature on
school effectiveness can also be increasingly seen in the
writing of leading school improvement researchers such as
Fullan (1991) and indeed in Canada there is an innovatory
project in the Halton School Board that is designed to put
school effectiveness knowledge in' improvement practice
(Stcll, 1989).   In Israel, school eftectiveness projects have
generated impressive gains in student achievement scores.
(Bashi and Zass, 1989).

In Britain, things are very different indeed and the take up
of school effectiveness knowledge by practitioners within the
educational system and within schools has been very limited,
with the exception of the former Inner London Education
Authority 'Inspectors Based in Schools' initiative of direct
provision of effectiveness knowledge to schools.   In part,
this may be because school effectiveness research in Britain
is heavily academically dominated, unlike the United States
for example where practitioners have undertaken some of the
research and where the school effectiveness `movement' was
pioneered by the black American school board superintendent
and practitioner, Ron Edmonds.

In part, though, it is probably the actual character of the
British research itself that has probably contributed to poor
levels of implementation by practitioners or by policy makers.
There are high levels of abstraction and a lack of specific
detail in some of the concepts utilised in the research like
`academic press' or `balanced control'.   The school
effectiveness research is weak on issues of management and
organisation and weak - as we noted earlier - on the
`technology' of schooling.   The research is quite strong on
school environments or climates but weak on the organisational
arrangements that are associated with effective school
environments.

The knowledge base of British school effectiveness research is
also not strong on teachers' focal concerns of the curriculum
and the actual instructional practices that are utilised
within classrooms as we noted above.   The studies are about
the end result of being an effective school and do not outline
how to get to the destination of 'effectiveness'.   Indeed, the
entire school effectiveness enterprise has usually seemed to
involve looking at effective schools to see what they have

improvement programmes to be effective we may need to know
what exists in the ineffective school that may not be in the
effective institution. Even the school effectiveness
processes may be a result of effectiveness rather than merely
a cause, as in the relationship between high academic
expectations and academic success for example.

The limited effects of school effectiveness work in terms of
take up into programmes of school improvement probably also
exists because the school improvement knowledge base (popular
with practitioners) has virtually diametrically opposed
intellectual characteristics. The school improvement paradigm
in Britain probably began with the teacher researcher movement
(Elliott, 1977, 1981), moved on to encompass school self
evaluation and review (Clift and Nuttall, 1987) and later
attempted to ensure that the review process was linked to an
improvement policy (as with the Hargreaves report on Improving
Secondary Schools (1984), the GRIDS scheme of McMahon et al,
(1984) and the International School Improvement Project of
Bollen and Hopkins (1987) and others.

Overall, though, this British school improvement effort in
total has continued to be concerned more with individual
teachers than with the organisation of their schools, has
rarely empirically evaluated the effect of changes in the
schools, has often indeed been more concerned with the journey
of undertaking school improvement than with reaching any
particular destination and has often celebrated practitioner
knowledge whether it is itself a valid improvement strategy or
not, leading to a futile reinvention of the wheel in each
project. The sociology of education has been particularly
good at the latter (for example Woods and Pollard, 1987). The
past lack of 'mesh' between the school effectiveness and
school improvement literatures and research communities, seen
for example in numerous disparaging comments about school
effectiveness work by the school improvers Holly and Hopkins
in Reid, Holly and Hopkins (1987), can be argued to have
damaged the knowledge base of school improvement work and to
have again reduced the potential practitioner impact of school
effectiveness work (see Reynolds, 1988 for elaboration of this
theme).

The disciplinary isolation of the two communities of school
effectiveness researchers and school improvement practitioners
has probably also been responsible for the disappointing
effects that have been generated when school effectiveness
researchers have directly themselves tried to influence school
practice through programmes of school improvement. Rutter and
his colleagues (Maughan et al, 1990; Ouston et al, 1991)
attempted major and lengthy interventions with three of the
schools that formed the basis of their earlier school
effectiveness research, using their findings in a direct
attempt to improve practice. Of the three schools involved,
only two showed some improvements and even these were in what
the researchers called 'restricted' areas. By comparison with
some other schools which changed rapidly because of the
appointment of a new headteacher, ' ... change at these
schools was less wide ranging, affecting only one or two of
our main outcome measures or being focussed primarily on

particular segments of the pupil intakes (Maughan et al, 1990, p.207)

In Wales, we tried a rather different consultancy-based method of bringing the results of school effectiveness work to schools, in which the school staff owned the change process, which was exclusively `bottom up' in orientation. This too had disappointing results in the short term (Reynolds, 1987). More recently there are occasional examples of the successful translation of school effectiveness work into school improvement programmes, as in the study where teachers attending in-service training in school effectiveness research as school `change agents' generated over four major organisational changes per person, over 80 per cent of which had survived in a six-year follow-up study (see Reynolds et al, 1989, for an outline of the project's results and philosophy). This study also showed that the schools which changed their organisational functioning also changed their pupil academic and social outcomes markedly, when compared to a group of non participating control schools. This 'Trojan horse' method of bringing the effectiveness knowledge base to schools through serving teachers may be one worth serious consideration. Its success, though, simply points up the failure of the other attempts to link effectiveness research and improvement practice..

Conclusions

This survey of the achievements and limitations of British school effectiveness research clearly gives us a mixed picture of the rewards of our efforts. On the one hand, the body of knowledge generated by school effectiveness research is quite substantial and some of the findings concerning effective processes may be quite robust. On the other hand, the translation of findings into school improvement programmes and into practice has been poor, with school improvement as a discipline following a separate set of emphases.

The pity of this situation is that the disciplines of school effectiveness and school improvement need each other intellectually. For school effectiveness researchers, school improvement programmes are the ultimate empirical test of whether effective school variables are causal and the experiments of nature that take place when schools change, or are changed, can provide a valuable set of research data. For school improvement practitioners, school effectiveness research can provide an increasingly sensitive description of good practice, especially useful as school effectiveness becomes more and more sensitive to the context of the school and to the precise portions of the ability range that improvers are interested in. Both communities, and bodies of knowledge, have much to learn from each other and one hopes that both communities in the 1990s will realise this.

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