Book Reviews

Michael Rutter, Barbara Maughan, Peter Mortimore, Janet Ouston, with Alan Smith.
FIFTEEN THOUSAND HOURS:
SECONDARY SCHOOLS AND THEIR EFFECTS ON CHILDREN.
Cambridge, Mass.: Harvard University Press, 1979.
285 pp. $8.50.

Underlying this book of statistical correlations about schools is a strong and persuasive message. The trouble is that many of those engaged in formal education, be they teachers, administrators, trustees, or professors in an education faculty, will immediately want to believe this message. The final conclusion in the book tends to confirm what idealists have always believed about schools: that is that they "foster good behaviour and attainments, and that even in a disadvantaged area, schools can be a force for the good." (p.205) In recent years, however, much has been written to suggest the contrary: that educational attainment is largely independent of the schooling a child receives (Coleman, 1966); that home and family influences far outweigh school influences (Plowden, 1967); that parental social status has more impact on a child's life-chances than does schooling (Jencks, 1972), and that education cannot, in fact, compensate for society (Bernstein, 1970). In the light of these findings many began to lose faith in the importance of schools and in the value of the schooling process itself. Then, as a final blow to these beliefs, Ivan Illich proposed the deschooling of society. "We have all learned most of what we know outside school," he said, and as "schools are the wrong places for learning a skill, they are even worse places for getting an education." (p.42, 24) Hence the appeal of Fifteen Thousand Hours. It tells us that "schools do indeed have an important impact on children's development and it does matter which school a child attends." (p.1) So where does all this leave us? Should we also become willing converts to Fifteen Thousand Hours' persuasive message?

When Fifteen Thousand Hours was first published in Britain in 1979 it was widely acclaimed as highly significant research. It

touched off headlines in the newspapers, stimulated parental interest and involvement in the schooling process, and animated numerous discussions and arguments in school staffrooms which are still going on. Its findings were used by some to justify mixed ability groupings and comprehensive schooling - a somewhat 'hot' political issue in contemporary Britain. Others have argued that the findings support a return to more formal schooling, with clean well-ordered classrooms and lots of homework. More recently, it seems to have provoked many an academic to feel compelled to publish a response, favourable or otherwise, to this work of Professor Rutter and his colleagues. Meanwhile, the book's reception in the United States can only be described as euphoric. The Director of the National Institute of Education said,

> I have talked to the most hard-headed, tough-minded, critical analysts and reanalysts of everything and, whatever their ideals of design, methodology, and analytical strategy might be, they recognise that this book is as good and as significant and conclusive as they may reasonably expect such books to be. (Timpane, p.15)

He was also "somewhat mortified" that Fifteen Thousand Hours had not been produced in the States, but nevertheless grateful because such a strong, careful study confirms our own emerging beliefs about the critical determinants of effective schooling: it is by way of a welcome message from abroad. (p.14) This "welcome message" was in turn published by the Harvard University Press. The Harvard Graduate School of Education soon organized a conference on "The Search for Effective Schools" and in so doing defined this topic as its new focus for the Eighties. In the words of the Dean, "It is a reaffirmation of the importance of schools in American society, and, more deeply than that, a restatement of our beliefs that schools can perform up to the expectations of American parents and the potentialities of our children." (Ylvisaker, p.1)

So much for the hoopla. What about Fifteen Thousand Hours itself? Is this book as important and as significant as many obviously think it to be? It is necessary to point out, as the authors do repeatedly, that this book is not a report of controlled experimental studies. Rather, it is a statistical study concerned with correlations and associations. Firm conclusions about cause and effect are therefore impossible. Nevertheless, the authors strongly suggest a number of causal relationships. These causal relationships are at once both intriguing and perhaps questionable. Basically, the study is about 12 inner-city London comprehensive secondary schools. Some of these schools were large, some small; some were co-educational, some were not; some were relatively new, some were built at the turn of the century; some were directly maintained by the Inner London Education Authority, whereas others were 'voluntary aided' Catholic or Anglican schools; some were located on one site whereas others used split sites. All of them served a densely populated area of Inner London, an economically depressed area characterized by poor housing, deprived or disadvantaged home circumstances, a substantial immigrant

population, and high delinquency rates. On the other hand, the schools themselves enjoyed a high rate of per capita expenditure and had one of the lowest pupil-teacher ratios in the country. They also experienced a high rate of teacher turnover.

The research was aimed at two general questions. Does it matter which school a child attends? If systematic differences between schools should be found, what are the features of school that matter? In tackling the first question, Professor Rutter and his colleagues measured four outcomes. These were academic achievement, student behaviour, attendance, and delinquency. After attempting to control for previous academic differences and occupational levels of parents, it was found that there was marked variation between the sample schools. In terms of academic achievement, as measured by public examination results, it was shown that the school with the best scores had 70% more high grades than the anticipated level, while the school with the worst scores had nearly 60% below it. In general, it was found that schools with better academic results also did better than average in terms of attendance, behaviour, and delinquency. Furthermore, it was found that these results were reasonably consistent over periods of four or five years. The conclusion is that it does, indeeed, matter which school a child attends. The inference is that the differences are due to the characteristics of the schools themselves rather than to individual differences among the children or the social status of the parents. These findings have enormous social and political implications.

What are the characteristics of schools that seem to be important in accounting for these differences? Rutter states quite emphatically that the differences between schools "were not due to such physical factors as the size of the school, the age of the building or the space available; nor were they due to broad differences in administrative status or organization." (p.178) These findings led the research team to look at the various processes in operation within the schools, and information was compiled on altogether 46 different, in-school, "process" variables. In many respects this part of the research is the most impressive and the most thorough. In total, it represents an extremely careful, time-consuming accumulation of data about the schools as social institutions. The factors identified as being positively correlated with successful outcomes included, inter alia, the amount of time that the teacher spent teaching the class as a whole; homework that was regularly set and marked; lessons that started on time and ran their full length; generally accepted standards of behaviour prevalent throughout the school rather than individual teachers operating in isolation with their own differing standards; the display of pupil work and the recognition of pupil achievement; the opportunity for large numbers of pupils to be given responsibility rather than just a few; broad consultation with teachers by administrators concerning school policy and practice; and schools purposely kept clean and tidy and attractively decorated.

According to Rutter, these features of school life "were probably less important in their own right than in the part they played in

contributing to a broader school ethos or climate of expectations." (p.55) The school ethos is thus greater than the sum of its parts, and the implication is that the success or failure of a school is directly proportional to the health of its ethos. Furthermore, "all of these factors were open to modification by the staff, rather than fixed by external constraints." (p.178) Quite clearly, the implication is that in-school administrators and teachers are directly responsible for the success or otherwise of the schooling process. Rutter concludes by stating that

> The total pattern of findings indicates the strong probability that the associations between school process and outcome reflect in part a causal process. In other words, to an appreciable extent children's behaviour and attitudes are shaped and influenced by their experiences at school and, in particular, by the qualities of the school as a social institution. (p.179)

Perhaps now it is easy to see why this book carries a persuasive message and why it has been so widely acclaimed. It is a book that addresses important social and political issues and has major implications for educators and policy-makers on both sides of the Atlantic.

Because of these implications and because many practitioners have already been converted by its message, it is important that both the findings and the conclusions in Fifteen Thousand Hours be subjected to careful scrutiny. It has already been pointed out that this was a non-experimental study from which firm conclusions about cause and effect should not be made. However, as Heath and Clifford have indicated, "It is important not only to put the caveats in but also to make them sufficiently prominent so that even the reader who wants to believe the conclusions has to take pause for thought." (Heath and Clifford, 1980, p.5)

A word of caution may well be in order concerning the school sample. The findings do not necessarily apply to other schools either in London or elsewhere in Britain. Still less can the findings be directly transplanted across the Atlantic. As indicated in the Educational Researcher, "Generalizing the results of correlational findings to causality statements and generalizing the findings obtained from the narrow sample used in this study to all secondary schools is questionable, at best." (Armento, 1980, p.27) But this is what tends to happen. In The American School Board Journal, for example, we find the following statement:

> Because the factors found to make a difference were almost entirely in the schooling process, rather than in form or structure, it is unlikely that the effects would be exclusively British. And it would be hard to argue that children in North America would react less well to consistency in discipline, to praise, and to greater opportunities for personal responsibility than do their

> student counterparts attending classes in the British Empire. (Switzer, 1979, pp.23-24)

The most serious methodological criticisms are to be found in the respected Oxford Review of Education. The main criticism is that Rutter and his colleagues did not adequately control for intake factors and that therefore the effects of in-school processes have been exaggerated. "With only one measure of family background, but forty-six measures of school processes, it is hardly surprising that some aspects of the school turn out to be important." (Heath and Clifford, p.6) The reader will recall that family background was controlled by means of the occupational level of the parent. These were grouped into just three broad categories. According to Heath and Clifford,

> Rutter fails to control for any other aspects of family background. It is commonplace now that parental interest and encouragement affect a child's attainment and that they have important effects even when we have controlled for parental occupation and IQ. After all, while a child may spend 15,000 hours in school, he will probably spend at least another 70,000 hours out of school, and many of these will be spent with his family. We need to put as much effort into capturing the effects of these hours as we do into capturing the effects of those spent at school. (Heath and Clifford, p.8)

The only other intake control was by means of verbal reasoning scores at the age of ten prior to secondary school admission. Analysis of variance was then used to find the extent to which pupils' academic achievement at the end of secondary schooling varied according to prior verbal reasoning and to the secondary school attended. The results showed that 27% of the variance is explained by verbal reasoning, only 6.5% is explained by the secondary schools, and the remaining 66.5% is left unexplained. "As it stands," say Heath and Clifford, "he (Rutter) simply has not controlled for all the non-school factors which are well known to affect children's school careers." (Heath and Clifford, p.9) The point is a fairly crucial one, for Rutter bases much of what follows on the strength of having controlled for intake factors.

In spite of the criticism, some of which has been described as nothing more than nit-picking, the fact remains that Fifteen Thousand Hours addresses important and fundamental questions about life in schools. One hopes that the study will encourage both researchers and practitioners to delve more deeply into the schools with which they are associated. North Americans, in particular, have always placed great faith in the formal school system. When it is sometimes realized that school systems are not always able to live up to their expectations, the result is often disillusionment, confusion, and despair. Professor Rutter and his colleagues have suggested that a focus on individual schools may be important. A strategy such as this, linked

with sound research, might well be the most important message of all.

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Peter F. Drucker.
MANAGING IN TURBULENT TIMES.
New York, N.Y.: Harper & Row, 1980.
239 pp. $9.95.

Peter Drucker, termed "the founding father of the discipline of management", is certainly no stranger to readers of organization and administration literature. In this, his 16th book in forty-one years of producing books, he seems to have something for everyone.

To conclude this new book, he rewrites a quotation from his much earlier book, Management: Tasks, Responsibilities, Practices, to suit the current management environment.

> Rarely has a new social institution, a new social function, emerged as fast as management in this century. Rarely, if ever, has it become indispensable so fast. But rarely also has a new institution, a new leadership group, faced as demanding, as challenging, as exciting a test as the one that managing in turbulent times now poses to the managements of businesses and non-business public service institutions alike.

Drucker explains that management is now being stridently attacked by a variety of interest groups. At some time during the last ten years