

Some research issues for the National College for School Leadership

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The range of research literature potentially relevant to the work of a specialist institute for school leaders is enormous – even co-extensive with the corpus of educational research literature if the concerns of the leaders are broad enough. One way to achieve some focus, particularly in the early life of the College, would be to focus on research directly relevant to the role of the school in contributing to the achievement of its own goals and those of the larger system of which it is part.

Other contributions to this set of papers will draw attention to the research on school effectiveness and improvement, which offers many helpful insights into the role of school leaders in the school development. In this brief commentary, I suggest that another helpful starting point could be the reform agenda of the larger system. Further, I suggest that the role of the College should be not only to raise the level of awareness among school leaders of relevant educational research but also to sponsor research by the school leaders themselves.

The major educational reform initiatives of the current UK government are all designed, in various ways, to raise standards of students' learning. Such reform efforts can be controversial for several reasons. First, there can be disagreement about some of the specific reform strategies. The nature and extent of external prescription of curriculum and school practices, for example, can be contested, particularly in a system with a long history of local control. The regime of monitoring to determine whether standards of achievement are rising can be contested on grounds of intrusiveness or validity. Secondly, and more fundamentally, the reforms can be controversial because of doubts about the whether the goal can be achieved by any means.

Doubts about whether standards of achievement in a whole system can be raised have their origins in some deeply-held views about human capacity that, in turn, have their origins in, or are at least reinforced by, some of the work of differential psychologists. Research in differential psychology investigates the nature of differences among individuals, and it has consistently shown both that there are marked differences among individuals and that their spread around the mean typically forms a normal distribution. The ubiquity of the 'normal distribution' has led, in some cases, to the very conservative assumption that not only the shape of the distribution but also its location are essentially fixed. That is, that the level of the mean and of the shape of the distribution as a whole cannot be altered. When the dimension of individual differences is intellectual capacity, or intelligence, the assumption of an essentially fixed distribution in the population has some powerful consequences for education with which educational reformers still live.

If intellectual capacity is seen to set clear limits on performance, and a technology for measuring it is developed, then bold predictions are sometimes made. After adapting and extending the French intelligence tests of Binet and Simon into the Stanford-Binet Tests of Intelligence (Terman, 1916, 1919), Terman predicted that the minimum intelligence required for each of the main professions would soon be known (Terman & Merrill, 1937). With tests of the intelligence of

children, education can be consigned the role of preparing students for the futures for which their intelligence fits them (McGaw, 1992). The streaming of young students in England after the 1944 Education Act, on the basis of a test taken at 11 years of age, was a striking, system-wide example. Other, more contemporary, manifestations of this view of fixed distributions of capacity are evident in discussions about increased participation rates. In the USA, for example, there are currently increasing enrolments in the College Board's Advance Placement courses in the final years of secondary school, successful completion of which can result in exemptions from specific first-year courses at university. Some argue that increased participation will inevitably lead to a decline in standards in these advanced courses (Lichten, 2000). Similar claims are made about a lowering of standards in A-levels in England if participation rates increase.

I have discussed this point at some length because, although its origins lie in psychological research in the first couple of decades of the 20th century, its power remains. Reforms aimed at raising national standards of achievement clearly must confront the view that the task is essentially impossible.

The assumption that standards cannot be raised is certainly not universally shared. On the one hand, there are strong cultural differences. On the other, there is research evidence that schooling does make a clear difference.

Stevenson and Stigler (1992) found markedly different expectations in the USA, Japan and China of what is possible, and markedly different explanations of failure. In the Asian countries they found that parents, students and teachers all attribute a student's failure to learn something to insufficient effort by the student. In the US, parents and teachers tend to attribute students' failure to learn to insufficient intelligence, and students attribute it to inadequate teaching.

Substantial differences among countries in the levels of achievement of their students provide clear evidence that what education systems and institutions do makes a difference. These differences are non-trivial and not readily dismissed. The superiority of Singapore, Korea and Japan in the results of the Third International Science Study (TIMSS) cannot be dismissed with facile claims that they use rote learning techniques to elevate performances on a limited range of skills tested. Comparisons with Australia make that clear. Australia performed well in TIMSS in comparison with most countries except its Asian neighbours. Stacey (2000) compared the mathematics results of Australian students with those in Singapore, Japan and Korea. Australian mathematics curricula have reduced their emphasis on routine computation in order to increase attention to problem-solving. Stacey found that students from the high-performing Asian countries – not surprisingly – outperformed the Australian students in tasks assessing computation, but that the Australian students did not outperform the Asian students in tasks assessing problem-solving. They were sometimes as good as the Asian students, but never better, and sometimes significantly worse. Further evidence that the basis of the high level of performance of Japanese students rests in their curriculum and pedagogy comes from a detailed video study of mathematics lessons in lower secondary classrooms in Japan, Germany and the US (Stigler & Hiebert, 1999; Stigler et al, 1999). This study made clear that Japanese teachers typically impose more elaborate problem-solving demands on their students than do their counterparts in the US and Germany.

The priority being given in many countries to raising the quality of their education systems and the performance levels of their students is driven partly by a desire for a stronger competitive position. They see the need to enhance human capital, at school level and through lifelong learning, in an effort to enhance national performance in a global knowledge economy (OECD and Statistics, Canada, 2000). There is always the possibility that that kind of competitive advantage could be won through high-level performance of a few rather than elevated performance of the population as a whole. The demand for widespread improvement in performance arises because of the need to ensure the full participation of all citizens in the

knowledge society as well as the knowledge economy. New and higher-level skills are needed for all, so notions that nothing can be done to raise overall skill levels offer only a counsel of despair.

It is one thing for a nation to set the goal of higher educational achievement, but quite another to achieve it. System-wide settings can be established but, in the end, the agents of change are the schools and their teachers. System-wide monitoring can be established but, in the end, if schools do not also know how they are doing and work systematically to improve on their weaknesses and enhance their strengths, the system as a whole will not advance towards its goal. Schools must, therefore, develop a capacity to monitor their own performance and to experiment with their methodology in order to discover what works well in their context. The research on school effectiveness and improvement can provide insights about strategies worth experimenting with, but local context will have a significant influence. Local wisdom will arise from a productive mix of general and local research-based information.

Schools have considerable discretion about how they operate and how they allocate resources. McKenzie (1989) showed that, in a centralised education system in which resources were provided to schools on a strict formula basis, schools that were very similar on the dimensions that determined their resource levels actually deployed those comparable resources in very different ways – between subject areas, between grade levels and so on.

For school leaders, an important message from research on school effectiveness and improvement is that differences among teachers within schools are greater than differences among schools. Schools are not uniformly effective. School leaders need to identify their less effective teachers and to put in place effective professional development programmes, linked to monitoring on the basis of adequate evidence about effectiveness of performance. Teachers should be judged on what they are achieving, not on their conformity with implicit, or even explicit, criteria that reflect personal preferences of supervisors about teaching practice or style.

An area of research with increasing potential for school and education system leaders is the work on social capital. This can be defined as "norms and networks facilitating collective action", and it has a potentially powerful, yet complex, set of relationships with human capital and with more general issues of economic and social development. Social capital can be, in part, an outcome of education in much the way human capital is. It can also potentially exert a powerful influence on the development of human capital and, in that respect, can confer a considerable advantage on students whose home and social environment endows them with, or develops in them, substantial social capital. There are not yet clear messages from this work. Putnam (2000) provides diverse and compelling evidence that social capital is in decline in the US, and offers some suggestions of policies that might arrest and even reverse the decline, but these are yet tentative proposals. The World Bank has an active electronic discussion group examining and debating aspects of social capital. The OECD plans to publish, in March 2001, a report on the importance of human and social capital in relation to education and also to economic growth and social development.

NCSL should monitor this work on social capital because it offers the prospect of new ways of thinking about how the social and intellectual dimensions of life within educational institutions can be effectively related for both intellectual and social well-being.

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