

Education and the wealth of nations

THE politics of education is in a confused and peculiar state. All over the world it is taken for granted that educational achievement and economic success are closely linked—that the struggle to raise a nation's living standards is fought first and foremost in the classroom. What has established this idea so unshakably in people's minds is a recent, and to many a rather alarming, phenomenon: the new intensity of global economic rivalry. The idea of competition among nations is now familiar (albeit often misunderstood). But the idea of international competition among schools—that is, among educational methods and systems—has so far made only a dull impression on people's thinking.

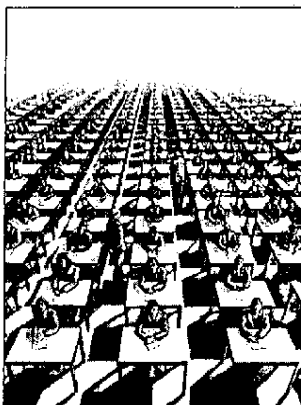
Up to now, education professionals have tended to resist comparisons even of apparently similar schools within neighbourhoods. Such are the subtleties of their craft, they say, that exercises of that sort are meaningless. In Britain, where the government has begun to publish league tables of schools' results, teachers and local-authority bureaucrats remain intensely sceptical of such information. To go further, and compare a school in Manchester with one in Tampa, say, or Seoul, would strike them as simply ridiculous. But the very changes that are concentrating people's attention on education are obliging everyone to be more outward-looking, and to judge their ways of doing things by the yardstick of the best in the world. Education should not be exempt.

Introduction to comparative studies

Certainly, no one any longer needs convincing that education matters. Not long ago a fashionable anxiety in many western countries was that youngsters were being over-educated—that is, schooled beyond society's needs. Machines were taking all the jobs that required basic skills, it was argued. In future only a handful of brain-workers would be needed. To teach cleaners and nightwatchmen advanced mathematics (such as adding up without a calculator) seemed pretty wasteful, and apt to breed discontent.

How quaint that seems now. In the advanced economies of America and Europe, today's chief economic worry is that jobs and industries will be lost to new competition from Asia, Latin America and Eastern Europe. It is a commonplace that, among these emerging economies, the most successful are the ones that have educated most of their workers up to, and in many cases well beyond, levels typically achieved in the West.

In the rich economies too the mix of jobs is changing rapidly, away from manufacturing and towards services, ancient and modern. But what many of the new activities have in common is that they too are based to a greater extent than before on information. One of the world's most conspicu-



ously successful centres of enterprise lies in that bit of California known as Silicon Valley: computing is today's knowledge-based industry *par excellence* (see our survey after page 60). The new jobs in tomorrow's industries, in manufacturing and services alike, will call for more than button-pressing automatons. They will require workers that are literate, numerate, adaptable, and trainable—in a word, educated.

When teachers and educational policy-makers start, like everybody else, to seek out best practice by looking around the world, what will they find? The first thing is a surprisingly large—and therefore potentially informative—variation in performance. The next is that this variation has little to do with things you might suppose would explain it: class sizes, hours of study per subject, and spending per pupil.

The biggest piece of international research on educational standards, involving schools in 41 countries, was published recently. It compared scores of 13-year-olds in maths and science tests, calibrating the scores so that a mark of 500 was equal to the international average. In maths, as it happens, America's score was 500, placing it 28th in the league. England's score was 506, giving a rank of 25. The Czech Republic, with 564, achieved Europe's highest score and a rank of 6. Top of the table was Singapore, with 643, followed by South Korea, Japan and Hong Kong (see pages 21-23).

The Czech Republic spent a third as much per pupil as America. Many of the most generous spenders achieved results that were mediocre or worse. Pupils per teacher and hours devoted to study in each subject were no more closely linked to results. The East Asian tigers scored well (without spending more than other countries), suggesting "Asian values" as the secret of success. But this too is misleading. English students scored almost as well in science as their Japanese counterparts. If "culture" is the key, why should this be so?

Academics are starting to ask why countries as culturally different as Japan and Switzerland do so well. The evidence suggests that teaching methods are the key. In teaching maths, for instance, both those countries spend more time on basic arithmetic than on deeper mathematical ideas, emphasise mental arithmetic, rely on standard teaching manuals and favour whole-class (as opposed to group) teaching.

Nobody, least of all their authors, is claiming that such studies are conclusive. So far they are proving much better at saying what doesn't work than what does. But it should be beyond doubt that more, and more detailed, comparisons of this sort are the way to advance the debate on education beyond tiresome quarrels over how much governments should be spending. This just doesn't matter very much. The argu-

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ment, in Britain at least, has begun to shift to teachers' methods in the classroom. Henceforth it should concentrate squarely on that issue.

Further research will be needed before it is possible to say with confidence what works best. Many teachers and most

local education officials will treat such inquiries with suspicion, of course: in most rich countries, unlike the pupils who turn out into the world, they have been sheltered from competition since they left college. Everybody else is part of the new global economy. It's time the schools joined in.

Vanishing peace