EDUCATION WEEK

COMMENTARY

Quick Fixes, Test Scores, and the Global Economy

Illustration by Gregory Ferrand

Myths That Continue to Confound Us

By Iris C. Rotberg

Our policy deliberations are dominated by a belief that we can cure our educational problems if only we can find a magic bullet—"scientifically proven" teaching methods,

school choice, increased student testing. If we succeed, our students will rank higher on international test-score comparisons, which, in turn, will enable the United States to compete in the global economy. These beliefs are based on a set of loosely coupled myths about U.S. education. The myths form the basis for much of our rhetoric and many of our policies.

The first of these myths is that *we can "fix" our schools without addressing the problems of poverty*. We can't. The achievement gap based on family socioeconomic status is the most significant problem in all countries, and accounts for about three-quarters of the variation in student performance among schools in the United States. Compounding the problem in this country are large inequalities in school resources, largely to the disadvantage of poor communities.

When we compare U.S. education with education in other countries, we might want to keep in mind that the United States ranks high on two international competitions that we perhaps would prefer not to win: We have one of the largest income and wealth gaps between rich and poor when compared with other industrialized countries, and, at the same time, our system of school finance is also one of the most unequal. Both have major consequences for the educational achievement of students from low-income families and for their chances of upward mobility.

All countries face educational achievement gaps based on income—even Sweden, with its social-support systems and relatively flat income distribution. But Sweden's gap is smaller than ours, while Germany's, for example, is larger. The problems of poverty in Germany are exacerbated by a system that tracks students into three separate types of schools, typically starting as early as 5th grade, with the bottom track generally serving children from low-income and immigrant families.

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A second myth holds that *international test-score comparisons are valid measures of the quality of education*. The fact is that test-score comparisons tell us little about the quality of education in any country. The first problem is sampling. For example, which schools and students are selected to participate? And, after the schools and students are selected, which ones choose to participate? Which regions of the country are represented? Are vocational schools included? To what extent have

children from low-income families dropped out of school before the test is administered? Are children with disabilities tested? Language-minority children? The point is that the more selective the sample, the higher the country's average score.

The second problem in interpreting international comparisons is poverty. We know that poverty plays a major role in educational achievement, and that countries vary enormously in the level of poverty and the extent to which low-income children are even in school to be tested. A country that has a relatively high level of child poverty but also encourages low-income students to stay in school will be at a disadvantage in the test-score comparisons.

Although it is true that some countries might place more emphasis on, say, math than the United States—and, therefore, do better in the test-score comparisons—there is no evidence that high math scores are associated with advantageous trade balances. More on this issue in a moment.

The point I want to stress is that it is virtually impossible to isolate the effects of each of these factors on countries' rankings and, therefore, it is unrealistic to attempt to infer the quality of education from the test-score comparisons. The difficulty of interpreting international test-score comparisons is also repeated in state comparisons of test scores, and comparisons of schools within districts under the federal No Child Left Behind Act.

Which leads to the third—and very widely accepted—myth: that *international test-score comparisons are valid measures of a country's ability to compete in the global economy*. The fact that we can't interpret these test-score comparisons has not deterred us from concluding that a country's international competitiveness can be predicted from its ranking on international tests. There is a long history of drawing that inference. The early international comparisons, conducted shortly after the launch of Sputnik in 1957, reinforced our fear that the Soviet Union was overtaking us in science and technology. Later, Japan was the country to fear because of its trade balance and its industrial-management techniques. Now, we are most concerned about China and India, two countries with rapid growth that have made large gains in technical fields. In each case, a concern about other countries'

accomplishments became linked in our minds with a concern about the ranking of U.S. students on international test-score comparisons.

I would like to pose a few questions, which I will leave to the reader to answer. Did the United States lose the leather, textile, and steel industries because of its ranking on test-score comparisons? Did General Motors lose sales to Toyota in the U.S. market because of American students' math performance? And, at a more sophisticated level, are we losing out in high-tech innovation and information technology at Microsoft and Apple because the iPod is manufactured in China?

Even if some of our software and innovation come from other countries, is it because our education system has produced insufficient numbers of high-quality scientists, mathematicians, and engineers? Is there a shortage of U.S. scientists, as some firms have reported, or is there a shortage at the wages the firms would prefer to pay? Are companies outsourcing jobs to China and India because Americans are not qualified for them, or because the firms can pay much lower wages to workers in these countries? Did Italy outsource the production of designer shoes to China because there are no skilled craftsmen left in Italy?

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Is the underrepresentation of native-born U.S. students in some science, mathematics, and engineering Ph.D. programs the result of a failure of our education system, or of personal decisions made by students to select other fields—perhaps more-lucrative fields like investment banking, law, or business?

One more question—but this one requires some explanation first. China and India are currently perceived as our main economic competitors. Despite impressive economic gains in recent years, however, poverty remains a major problem in China, and an even greater one in India. The high poverty rates are reflected in education statistics. In China, less than half the upper-secondary age group is enrolled in school, while in India, less than a third is enrolled. (China and India do not participate in the Program for International Student Assessment, or PISA, perhaps because of the large proportion of children who are no longer in school at age 15, the age at which the test is administered.)

Both countries have huge gaps in wealth and in the education resources available to rich and poor communities. But China has a population of 1.3 billion, and India, a population of 1.1 billion, compared with 300 million in the United States. China and India, therefore, clearly do not have to educate a very high proportion of their populations to be competitive both in scientific fields and on the shop floor.

Complicating the issue is the fact that U.S. institutions and wealth managers can invest in industries throughout the world, as can citizens of other countries. U.S. and foreign firms can build factories abroad, hire workers in those countries, and then give the benefits of their profits and lower prices to their shareholders and consumers worldwide. Workers can move from one country to another and go where the jobs are.

Now to my question: Given the complexity of that global context, do you believe that our problems in economic competitiveness would be solved, or even alleviated, if U.S. students answered a few more questions correctly on international assessments?

A Japanese proverb puts it this way: "You can't see the whole sky through a bamboo tube." Nor, I would argue, through the lens of test-score comparisons.

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