

Opinion | EDITORIAL

Teaching Math, Singapore Style

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The countries that outperform the United States in math and science education have some things in common. They set national priorities for what public school children should learn and when. They also spend a lot of energy ensuring that every school has a high-quality curriculum that is harnessed to clearly articulated national goals. This country, by contrast, has a wildly uneven system of standards and tests that varies from place to place. We are also notoriously susceptible to educational fads.

One of the most infamous fads took root in the late 1980's, when many schools moved away from traditional mathematics instruction, which required drills and problem solving. The new system, sometimes derided as "fuzzy math," allowed children to wander through problems in a random way without ever learning basic multiplication or division. As a result, mastery of high-level math and science was unlikely. The new math curriculum was a mile wide and an inch deep, as the saying goes, touching on dozens of topics each year.

Many people trace this unfortunate development to a 1989 report by an influential group, the National Council of Teachers of Mathematics. School districts read its recommendations as a call to reject rote learning. Last week the council reversed itself, laying out new recommendations that will focus on a few basic skills at each grade level.

Under the new (old) plan, students will once again move through the basics — addition, subtraction, multiplication, division and so on — building the skills that are meant to prepare them for algebra by seventh grade. This new approach is being seen as an attempt to emulate countries like Singapore, which ranks at the top internationally in math.

All these references to Singapore are encouraging, given this country's longstanding resistance to the idea of importing superior teaching strategies from abroad. But a few things need to happen before this approach can succeed.

First of all, the United States will need to abandon its destructive practice of having so many math and science courses taught by people who have not majored in the subjects — or even studied them seriously.

We also need to fix the current patchwork system of standards and measurement for academic achievement, and make sure that students everywhere have access to both high-quality teachers and high-quality math and science curriculums that aspire to clearly articulated goals.

Until we bite the bullet on those basic, critical reforms, we will continue to lose ground to the countries with which we must compete in the global information economy.

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