Are We Fixing the Wrong Things?

Yong Zhao

Creativity—and not standardization—may be the driving force behind an effective education system.

Our Nation is at risk. Our once unchallenged preeminence in commerce, industry, science, and technological innovation is being overtaken by competitors throughout the world.

So opens the influential report *A Nation at Risk*. The report goes on to identify what put the nation at risk:

The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people. . . . Others are matching and surpassing our educational attainments.

The writers feared that the United States would lose out to its competitors, such as Japan and South Korea, because “we are raising a new generation of Americans that is scientifically and technologically illiterate” (National Commission on Excellence in Education, 1983).

More than two decades later, the United States remains a superpower, dominating the world as the most scientifically and technologically advanced nation. The core innovations that drove the global digital revolution were created in the United States; the leaders of the computer and Internet industries are from the United States. Moreover, nearly two-thirds of the 300,000 patents issued in 2002 went to Americans (Florida, 2005). In the meantime, the countries that spurred the alarm, Japan and South Korea, have been in an economic recession for more than a decade.

How could “a nation at risk” and a “generation of Americans that is scientifically and technologically illiterate” accomplish this? Did the report-induced reforms lift U.S. education out of mediocrity and save the nation from the crisis?

Apparently not. Although the report received tremendous attention and ushered in an era of education reform, “its goals have not yet been realized,” wrote Diane Ravitch, former U.S. assistant secretary of education and professor at New York University (2003). Many would agree. Education reforms have generally not changed, let alone improved, U.S. schools. According to Bill Gates, U.S. schools are not only in trouble—they’re “obsolete” (2005).

Did imported foreign talents, then, save the United States, as some would believe? Not according to records kept by the U.S. Department of Labor. In 2004, of the nearly 49 million people who had jobs in the category titled “Management, Professional, and Related Occupations,” which includes the professions most related to science and technology, only 9 percent were foreign-born. Moreover, in the subcategory of “Computer and Mathematics Occupations,” only 5 percent
of workers were foreign-born. In “Architecture and Engineering Occupations,” 6.5 percent of workers were foreign-born (Bureau of Labor Statistics, 2005). It is difficult to imagine that these small percentages of foreign-born workers had such a decisive impact on U.S. scientific and technological advances.

Is it possible that U.S. schools were not in trouble after all? Or were they in a different kind of trouble? Did reforms overlook the real problem and try to fix something that wasn’t really broken?

Déjà Vu Reform

We are currently experiencing a wave of education reform similar to that which followed A Nation at Risk, with similar justification. “Clearly, we’re no longer the only economic kid on the block,” said Margaret Spellings, U.S. secretary of education (2005a). At the National Education Summit on High Schools, Spellings added,

This is reaching crisis stages in the fields of science and engineering. . . . China now graduates six times as many engineering majors as the U.S.; South Korea and Japan, four times as many. This type of performance has serious implications for the future. (2005b)

A day earlier, Bill Gates had told the same audience, “In the international competition to have the biggest and best supply of knowledge workers, America is falling behind” (Gates, 2005). Why? Because U.S. students don’t test as well as their peers in Asian countries, and the United States doesn’t graduate as many engineers as India and China do. Recommendations for dealing with this new crisis are almost identical to those made in A Nation at Risk, except this time the reformers vow to implement them with greater force.

Our Secret Weapon

The world has changed; social commentators have observed that it has become a “global village” and “flat.” The reformers are therefore correct in pointing out that the United States can no longer isolate itself and that the country needs to be able to effectively compete with other nations. The reformers are also right about the problematic state of U.S. education. But they could be wrong about two things: what it takes to compete internationally and what the real problems in U.S. education are.

As indicators of crisis, the reformers often cite the lower performance of U.S. students in math and science, especially in international comparison studies; the declining interest and enrollment in math and science courses; and the growing number of college graduates in other nations. But the secret weapon that has helped the United States remain an economic leader and innovation powerhouse is the creative, risk-taking, can-do spirit of its people. This spirit is not normally measured in standardized tests or compared in international studies.

Sim Wong Hoo, founder and CEO of Singapore-based Creative Technology, pointed out this very fact. When asked in an interview with Newsweek about the advantages and disadvantages of having his company based in Singapore, Hoo answered,

The advantage is we come from a very conscientious culture. You tell our people what to do, they’ll follow the rules, they’ll do it. The downside is they are not as creative. We fixed that by having a U.S.-based R&D team that’s doing more advanced research. (Levy, 2005)

Singapore, by the way, has repeatedly been the top-performing nation in the Trends in International Mathematics and Science Study (TIMSS).

Whereas U.S. schools are now encouraged, even forced, to chase after test scores, China, Singapore, South Korea, and Japan—all named as major competitors—have started education...
reforms aimed at fostering more creativity and innovative thinking among their citizens. China, for example, has taken drastic measures to reform its curriculum. As the United States raised the status of standardized testing to a record high in 2001 with No Child Left Behind, the Chinese Ministry of Education issued an executive order to significantly minimize the consequences of testing (2002). As the United States pushes for more centralized curriculum standards, China is abandoning its one nation—one syllabus tradition. As the United States moves toward a required program of study for high schools, China is working hard to implement a flexible system with more electives and choices for students. As the United States calls for more homework and more study time, China has launched a battle to reduce such burdens on its students.

**Status Quote**

We cannot adopt the way of living that was satisfactory a hundred years ago. The world in which we live has changed, and we must change with it.

—Felix Adler

**The Real Problems to Tackle**

Creativity cannot be taught, but it can be killed. What fosters creativity in the United States is the whole multifaceted experience of growing up: the soccer games, the orchestra performances, the opportunities to pick and choose courses, even the much criticized mile-wide—inch-deep curriculum standards, which give students the flexibility to pursue topics that interest them and to progress differently than other students in the same school, district, or state. The current or proposed reform initiatives—centralized curriculum, standardized testing, accountability, required course of study—could kill creativity, the United States' real competitive edge.

The reform initiatives also neglect two pressing problems in U.S. education: (1) the lack of a curriculum that focuses on international issues and prepares students to actively engage in global affairs, and (2) the lack of opportunities for impoverished children to participate in the globalization discourse. We urgently need to learn how to work with our neighbors in the global village and help schools and children in poverty.

This “flat” world demands individuals who can market innovations to other countries without being perceived as arrogant or imperialistic. For this, we need people who can speak other languages, who understand and respect other cultures, and who realize that globalization and economic development in other nations do not necessarily mean job losses, lower wages, and a trade deficit in the United States. We need to realize that these developments can also result in expanded markets for U.S. inventions, a new workforce for U.S. companies, and a safer world for everyone.

**References**


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