

It Takes More Than Money

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In 2018 the U.S. spent \$14,400 per pupil on primary and secondary education. This was the 5th highest among the 37 countries of the Organization for Economic Cooperation and Development (OECD), and it was 34% higher than the OECD average. The U.S. was the 7th highest in salary for primary grade teachers with 15 years experience. But the same year the international comparisons of results on math tests given to 15-year-olds showed that the U.S. performance was below the OECD average.

There are many reasons why the high U.S. expenditures for education do not translate into high performance by American students. Our system is one of the most decentralized and disorganized in the world. Each of the 50 states has its own education bureaucracy, and most decisions about what happens in the classroom are made at the level of individual school districts, of which there are 16,800 in the country. Much of the funding comes from local real estate taxes, and as a result wealthy neighborhoods have much more money to spend on their schools than poor neighborhoods. So our system is one of the most unequal in the world.

But in my opinion the root cause of the disappointing quality of American education is cultural. Over the last 4 or 5 decades we

have seen a sharp decline in popular respect for teachers and in the status of the teaching profession.

I went to secondary school and college during the “post-Sputnik” era in U.S. education, which lasted from 1957 (the launching of the first satellite into orbit by the Soviet Union) until 1969 (the landing of the first human on the moon by the U.S.). During the “race to the moon” the U.S. government invested heavily in education, especially in the sciences, and popular enthusiasm supported these efforts, if for no other reason than to “beat the Russians to the moon.” In addition, at this time most professions were effectively closed to women, and teaching at the primary and secondary levels was one of the few options for an intellectual woman. Some of the very best female university students went into teaching, and teachers were respected.

Now the situation is very different. Teaching in America is a very stressful profession. Teachers have little autonomy, and must deal with an unwieldy bureaucracy. Student defiance and misbehavior are widespread. The newspaper stories about school shootings frighten teachers. No longer do many of our best students choose the teaching profession.

In the U.S. when a student gets a bad mark, it is common for the parents to get angry at the teacher, not at their child who received the low mark. Parents also complain if their child is given what they consider “too much” homework. Complaints by students and parents can damage a teacher’s reputation and

career. In the U.S. there is a strong incentive to “dumb down” the curriculum and inflate marks. The good students find the material easy, and the lazy ones get inflated marks which only the best students would have received in earlier times.

The response of many public officials to the Covid-19 pandemic gave a clear indication of their disdain for teachers. After schools reopened for the 2021-2022 year, eleven states enacted bans against schools requiring mask-wearing. All of the debate about when to reopen schools and whether to require mask-wearing centered around what was thought to be best for children and their parents: the damage to children that comes from missing school, the burden on parents of having the children home all day, and the discomfort of wearing masks. In all the news stories about this debate, I never saw a single mention of the health of teachers, many of whom are elderly or have underlying medical conditions (such as asthma, diabetes, or immunodeficiency) that make them susceptible to severe covid. Undoubtedly many more teachers died from the covid they caught while doing their job than have ever died from school shootings. However, the newspapers report extensively on school shootings, and hardly a word on teachers dying because of the public’s lack of concern for their health during the pandemic.

In the 1990s I became interested in pre-university math education. When my wife Ann and I traveled internationally we would arrange visits to local schools to present math

enrichment material. For us it was like a breath of fresh air to see the tremendous value that people in other countries place on education and the respect they have for teachers. We visited schools in Peru, Chile, Belize, El Salvador, Mexico, Cuba, South Africa, Malawi, Zimbabwe, India, and Vietnam. In Hanoi we visited two special schools and one school that was described to us as average. In the “average” school we spent a morning with a class of students who were roughly the same age (about 10 or 11 years old) as the ones I’ve worked with near where we live in Seattle. But they were much better than their American counterparts, not only in their basic skills, but also in their creativity in handling the challenging mathematical puzzles we gave them.

Vietnam has a long tradition of great respect for scholarship, as Ann and I learned when we visited VAN MIEU during our first trip to Hanoi in 1978. In mathematics that tradition started with LUONG THE VINH and continued with LE VAN THIEM, HOANG TUY, and NGO BAO CHAU.

It is no mystery why one country can spend a lot of money on education and get meager results, while another country spends much less and yet manages to teach complex skills and creative thinking to young children. The root cause, as I said before, is cultural. Respect for teachers must be at the core of a successful educational system.