What Is a World-Class Education?


One of the new educational buzz phrases is "world-class education." The United States wants its students to receive a world-class education. Indeed, the goal is often stated that students in the United States are to be second to none, and they are to be first in science and mathematics.

Of course, I can imagine that leaders in other countries have the same aspirations for their students, which does seem to create a slight problem! I wonder whether an international competitive model for education is appropriate?

I hate to admit it, but I am not sure what constitutes a world-class education. The summer Olympics have recently ended, so I know what constitutes a world-class performance in an athletic event such as swimming or running. In these events, performances can be clocked to the nearest thousandth of a second. In sports like soccer or basketball, athletes earn points under a system of carefully defined rules. In performance events such as gymnastics and diving, the judging process is quite complex and the results are sometimes controversial.

This suggests one definition of world class. It is a competitive definition, and it refers to a person or a team being competitive with the best in the world. In areas like mathematics and computer programming, there are international "Olympiads" in which teams from different countries meet head-to-head. The teams are asked to solve problems that are sufficiently challenging so that a clear winner usually results.

However, most people who talk about a world-class educational system are interested in the education of the vast majority of children, or all children, and not just a small elite. Probably they have in mind an extension of the above competitive model. The idea would be to develop assessments (tests) that are highly accurate and that are absolutely equally fair to the students in every country. Then assess every child in every country, compute the average scores for each age level, and see which country comes out on top.

Unfortunately, there are a few flaws in this approach. For example, Japanese students spend quite a bit of time memorizing the names of their country's rulers going back for a thousand years, while students in other countries face longer or shorter lists. Should our international educational assessment include a measurement in this area? Or should we leave out any topic that varies across regions or countries?

As another example, in many countries, children grow up speaking two or three languages. In other countries, they learn only one language. Should fluency and literacy in several languages be part of the international competition? Or perhaps we should concentrate just in one's native language. I can imagine trying to compare quality of written and oral communication among students with differing native languages. That would certainly be a challenge to the test makers.

Will we measure students' abilities to survive in a jungle, desert, or large city? Should we assess skill in using public transportation systems? Will we measure students' abilities as hunters, farm workers, factory workers, and service industry workers? Will we measure artistic
creativity? If so, should the artistic medium be crayons, brush and black ink, or a computer? Should we measure composition and performance in music? If so, should the instrument be guitar, bongo drums, or a computer with a MIDI interface?

I believe that this line of reasoning and argument illustrates the difficulties, if not the impossibility, of defining a world-class education. What seems to emerge from this morass of difficulties is a simplistic definition of world class. We will select certain things that are relatively easy to assess. Given a map of the globe, name and locate the continents, the major oceans, the 10 most populated countries, and the 10 most populated cities. Perform the following computations; solve the following math problems. Balance the following chemical reactions, and solve the following physics problems.

If the nature of the assessment is clearly defined in advance, then schools can prepare their students to do well on the assessment. However, that means the assessment drives the curriculum. It also means that we need worldwide agreement on what is to be assessed, so we need worldwide agreement on directions in which to drive the curriculum.

At the current time, it would be impossible to achieve such worldwide agreements. Moreover, it is not clear that it would be desirable to do so. It may be okay to agree on precise international definitions on athletic events, and not change these definitions over a period of many years. It is another thing entirely to agree on precise goals for various parts of the school curriculum, and not change these over a long period of years.

Continued rapid advances in computer technology, along with rapidly growing interest in "authentic" assessment, further complicates the issue. Many students are learning to answer geography questions, solve math and science problems, and communicate in a computer-rich environment. If assessment of these students is to be authentic, it should be done using the facilities of this environment.

During the past year I have gotten quite good at having the term "world-class education" flow through my keyboard. Maybe in the next year or two I will learn what it means.

**Retrospective Comment 8/27/08**

The 2008 Summer Olympics just ended. Thousands of athletes from throughout the world competed. Many new world records were set. Occasionally an athlete won (or, lost) a timed event by a hundredth of a second.

The various highly competitive nations have good insight into how to produce world-class competitors in various sporting events. Identify potential stars when they are quite young—perhaps even before they start grade school. Give them special diets, special training, good faculties, and so on for 10 or more years. Encourage/make them work very hard during this time.

As pointed out in the editorial written 16 years ago, this overall process works reasonably for elite athletes. However, the basic ideas do not carry over well to general education. Of course, there are certain exceptions to this. We can have national contests in spelling, and we can have “College bowl” types of completion in answering questions of fact. But, high performance in such testing is not a very appropriate goal in education for the general public.

It seems to me that our overall educational system could be improved by having fair, reliable, valid, authentic, easy to administer and score, and easy to understand performance tests over the
full range of “schooling” topics and areas. However, it is not clear that we are making any progress toward such a goal.