Remarks on Race to the Top (RTTT) Stephen Krashen Expanded version of comments submitted to regulations.gov on Race to the Top August 27, 2009

Standards supporters are telling us "that poor kids in crumbling urban schools will have equal opportunity for a quality education if we institute national tests and tell kids they can't graduate if they don't master quadratic equations" (Ohanian, 1999, p. 5).

THE RATIONALE

Global competitiveness

The major rationale for the RTTT is the claim that the US needs to improve its educational system drastically to keep up with the rest of the world, to be able to compete with other countries. In reality, the US is already very competitive: In fact, the US ranks first in the world (out of 134 countries) in "global competitiveness." (World Competitiveness Report, World Economic Forum).

The STEM (Science, Technical, Engineering, and Mathematics) shortage

"... the impending shortage of scientists and engineers is one of the longest running hoaxes in the country" (Bracey, 2009).

One of the major priorities of the RTTT is to "Prepare more students for advanced study and careers in the sciences, technology, engineering, and mathematics." There is no shortage of STEM-trained professionals, in fact, there is a surplus (Teitelbaum, 2007; Toppo and Vergano, 2009; Bracey, 2009). In addition, the US ranks at or near the top of the world on all categories related to STEM education and availability of expertise: According to the World Economic Federation, the US ranks 6th out of 134 countries in "availability of scientists & engineers," first in "quality of scientific research institutions" and first in "university-industry research collaboration."

Our schools are bad. Our students' scores on international tests are mediocre.

Students from well-funded schools who come from high-income families score outscore all or nearly all other countries on international tests. Only our children in high poverty schools score below the international average (Payne and Biddle, 1999; Bracey, 2009; Martin, 2009) The US has the highest percentage of children in poverty of all industrialized countries (25%, compared to Denmark's 3%). Our educational system has been successful; the problem is poverty.

THE TREATMENT: NATIONAL STANDARDS, NATIONAL TESTS

The Department of Education has made the standards movement its number one priority, has already planned to spend billions on the standards and has planned to spend much more on national tests.

The wrong priority

The first priority should not be new standards and tests but should be reducing poverty. As just noted, the US has the highest rate of child poverty of all industrialized countries. Poverty has a huge impact. Studies confirm that hunger, poor diet and lack of reading material seriously affect academic performance. When all our children have the advantages that children from high-income families have, our schools will be considered the best in the world.

A suggestion

A good start is strengthening school libraries in high poverty areas: Children in the deepest levels of poverty have the lowest reading test scores, and also have very little access to books in the home, in school, and in their communities. Study after study confirms that increased access to books results in more reading and more reading results in better literacy development (research reviewed in Krashen, 2004). A one-time investment in school libraries of about \$26 million would generate enough money in the form of annual interest to make sure all children have access to books forever. (The current NCLB federal budget is \$26 billion).

We already have tests

An argument for standards and tests is that they will allow comparisons among districts states, and other countries. But we already have instruments that can do this quite well. The NAEP is given every few years to samples of children, and the results are extrapolated to get an accurate picture of how different areas are doing. We need not test every child; the doctor does not have to take all your blood to get an accurate picture of your health.

We would be much better off improving the NAEP than starting all over again with a massive standards and testing program.

There is no evidence that more testing leads to better achievement; in fact, there is tremendous evidence that it has the opposite effect, converting instruction into test-prep rather than real learning.

Dangers of narrow, rigid standards

Everyone in education understands the value of having some common baseline benchmarks as well as the value of assessment. The department of education's push, however, appears to be for narrow and rigid national standards and widespread testing. Secretary Duncan has stated that his goal is to ensure that all children know where they are "on every step of their educational trajectory" at all times.

These tests will dominate the curriculum and even become the curriculum. In fact, one school has already dropped traditional grades and has substituted progress in the standards on report cards ("Miles adopts standards-based grading," August 24, 2009, Cincinnati Enquirer). This promotes a skill-building, rigid scope-and-sequence approach that is not in tune what is known about the way children learn.

A great deal of research (and common sense) tells us that many "skills" are acquired as the result of doing other things: Most our knowledge of concepts and facts is the result of our attempts to solve real-world problems that are of interest to us (Krashen, 2003). The encyclopedic knowledge experts have of their fields is not the result of drill and study: Linus Pauling did not review the Periodic Table each day, but gained his huge knowledge of chemistry from his wide research interests.

Similarly, nearly all of our educated vocabulary, our ability to write coherently, our mastery of the conventions of writing, as well as a great deal of knowledge, including "practical knowledge," comes from wide reading Cunningham and Stanovich, 1998; Krashen, 2004).

It is very difficult to teach these things as discrete items, and is often, in fact, impossible, because the systems to be mastered are too complex and large. Attempts to do this will dominate the curriculum and will drive out activities that help children the most.

A culture of test-prep

"...our children are tested to an extent that is unprecedented in our history and unparalleled anywhere else in the world. Rather than seeing this as odd, or something that needs to be defended, many of us have come to take it for granted. The result is that most of today's discourse about education has been reduced to a crude series of monosyllables: "Test scores are too low. Make them go up." (Kohn, 2000, p.2).

As we have already seen with NCLB, rigid national standards and tests promote a culture of school as test-preparation, and gives rise to a focus on increasing test scores, not real learning.

"Linda Darling-Hammond offers this analogy: Suppose it has been decided that hospital standards must be raised, so all patients must now have their temperatures taken on a regular basis. Shortly before the thermometers are inserted, doctors administer huge doses of aspirin and cold drinks. Remarkably, then, it turns out that no one is running a fever! The quality of hospital care is at an all-time high! What is really going on, of course, is completely different from providing good health care and assessing it accurately – just as teaching to the test is completely different from providing good instruction and assessing it accurately" (Kohn, 20000, p. 32).

21st century skills

"I contend that, instead of insisting on more and more standardization, we should be increasing variety, flexibility, and choice in what we offer in our schools (Noddings, 2009, p.243).

It is often stated that new standards are necessary so that children will develop "21st Century Skills." Secretary Duncan behaves as if he knows what these skills are (but see below). The rest of us have no idea.

The history of science and technology has taught us that new developments are nearly always a surprise. Secretary Duncan expressed this idea himself, in an interview with USA Today:

"As we get more and more of these technological breakthroughs, there are going to be jobs in fields available that don't even exist today. If these guys can come out and be those innovators and be those creators and inventors, they're going to create new opportunities that we can't even envision or begin to comprehend today." (USA Today, August 9, 2009).

In other words, Secretary Duncan agrees with Yogi Berra: "It's hard to predict, especially about the future."

The only way to prepare children for the future is to make sure children are prepared for a wide variety of options and opportunities. We need to continue to "produce students who graduate with generic skills that allow them to adapt rapidly to economic changes" (Martin, 2009).

But even if we knew exactly what skills the world will need in several decades, is a standardized curriculum the right choice? Our responsibility is also to provide the means for students to develop their talents and explore their interests so they can reach their full potential. This means broadening curriculum options, rather than making them narrower (Ohanian, 1999, p. 4).

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