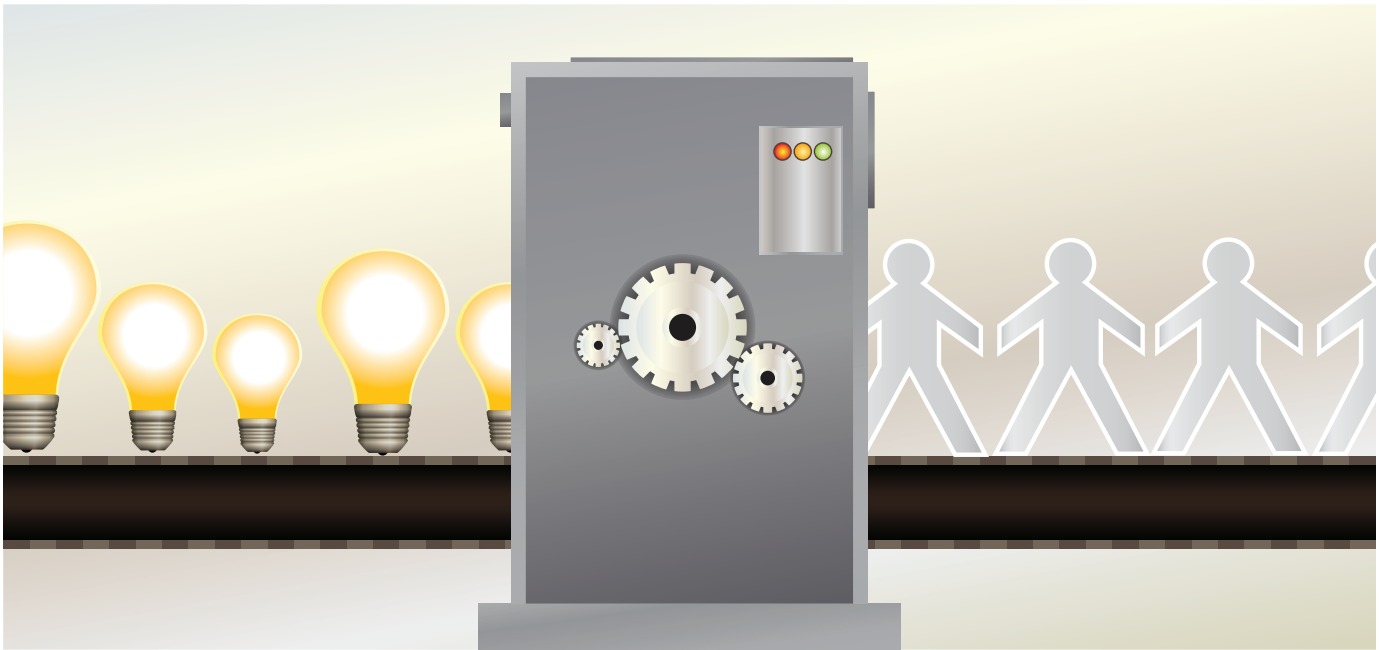


## For the Record

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# Non-Standardized Standards

by Christopher H. Tienken  
Academic Editor



### Abstract

*The evidence put forth by those who favor standardization and centralization of the public school system does not add up. Two popular claims made by standardizers advocating for the need to end local control of curriculum and assessment are refuted here and evidence in support of some alternate ideas for moving the public school system forward is presented.*

**Key words:** standards, education reform, curriculum

Education stakeholders in various states have begun to question their loss of locally controlled curriculum and assessment decisions—ceded to the corporately influenced movement to standardize the American public school system. In this article I refute two claims for the need to end local control of curriculum and assessment, and

I provide some competing ideas for non-standardized standards.

### Fraudulent Claims

The first claim made by bureaucrats for the need to impose a standardized curriculum system is that American students are frightfully behind their international peers in academic achievement. The second claim is that national curriculum standards will cause American students to score at the top of the world on international tests. The fact that some bureaucrats and superintendents still put forth these claims or parrot them, in light of the evidence that disproves them, makes me wonder whether the Internet is turned off in some departments of education and school district central offices. The evidence to refute such claims is publically available through a few clicks on a computer keyboard.

Don Orlich and I (Tienken & Orlich, 2013) deconstructed these frauds in detail in our book *The School Reform Landscape: Fraud, Myth, and Lies*, and I have written extensively about them in other forums (Tienken, 2008, 2012a, 2013a). I present additional data points for consideration in an attempt to inspire more reading on the topic, especially by those who make education policy for our 50 million public school children.

### *Claim #1: International Rankings*

Bureaucrats and vendors of the Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) use two prominent international assessments as examples that American public school students are behind their international peers academically: Trends in Mathematics and Science Study (TIMSS) and the Programme for International Student Assessment (PISA). Yet a conscientious look at the data does not support the claims that American students are lagging behind their international peers.

For example, on the 2011 TIMSS for grades 4 and 8 mathematics, American students ranked 8th and 7th, respectively, against more than 35 countries that have had national standards for at least five years (Mullis, Martin, Foy, & Arora, 2012). But let's look carefully at those that ranked higher. In terms of grade 4 results, seven other entities—only four actual countries—ranked higher (Tienken, 2013a). Students in Northern Ireland, Hong Kong, and the Flemish portion of Belgium ranked higher than U.S. students, but they are not countries. The population of Flemish Belgium is only about 6.5 million people. In the United States we call that Indiana. Hong Kong is known as a special administration district within China and has its own education system that abhors the Chinese standardized system. Northern Ireland is simply Northern Ireland, just like Lower Manhattan is one area of Manhattan.

So that leaves only Korea, Taiwan, Singapore, and Japan as countries whose testing

samples of 5,000–6,000 students, all of which are not representative samples like those in the United States, outranked American students with any statistical significance in mathematics, whereas 35 countries with national standards ranked lower than American students (Mullis et al., 2012). The grade 8 results were similar to those for grade 4, with American students statistically significantly outranked by only Korea, Taiwan, Singapore, Russia, Japan, and the city of Hong Kong, whereas 32 countries with national standards ranked lower than the United States (Mullis et al., 2008, 2012).

I am not sure these rankings warrant dismantling what many people around the world consider the most creative, egalitarian, democratic, and innovative public school system on the planet in favor of a one-size-fits-all, untested set of national standards. As the results suggest, having national standards is no guarantee of superior international academic performance. More countries with national standards scored lower than the United States, at a ratio of almost 5:1, meaning that for every country with national standards that ranked higher than the United States, five countries with national standards ranked lower.

### *Claim #2: The Influence of National Standards*

The second claim, that national standards will push students to the top of the international rankings, is just not true. American students ranked significantly higher than 67% of the sample in mathematics on the PISA for 15-year-olds (24th overall in 2009) and a little lower in 2013 (OECD, 2013a, 2013b). I explained in detail in the past why ranking 24th on an international test is not worrying, because the results do not correlate with economic strength or competitiveness (Tienken, 2008, 2014). But will national standards help?

As with TIMSS, more countries with national standards scored lower than the United States on the 2009 and 2013 PISA tests than countries without national standards (OECD,



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## For the Record

2013a). Another reason not to take the results too seriously is that in order to compare things statistically, they must in fact be comparable (Bracey, 2006). When comparing the quantitative achievement of two groups, one must ensure that the characteristics of the groups are comparable as well, in terms of the things that influence achievement. PISA results are heavily influenced by poverty and immigrant backgrounds (OECD, 2013a, 2013b). Poverty explains up to 46% of the PISA scores in OECD countries (OECD, 2011, pp. 35–36). That does not bode well for the United States with one of the highest childhood poverty rates of the major industrialized countries (Snyder & Dillow, 2012).

A more appropriate method would be to compare the achievement on PISA by poverty rates. For example, Finland has a child poverty rate of less than 4%, whereas the United States has a child poverty rate of about 24% (Snyder & Dillow, 2012). In fact, all the member countries of the OECD have much lower child poverty rates than that of the United States (OECD, 2012). When one controls for student poverty, the United States ranks at the top of PISA and near the top of TIMSS (OECD, 2013a; Riddle, 2010; Tienken, 2013a). The correlation between poverty rates and achievement ranks occurs on all international tests of achievement. For the 30 most industrialized economies, achievement relates strongly to poverty rates. The United States does not have an international achievement problem; it has a domestic poverty problem that is reducing achievement (Tienken, 2012b).

### Protecting Creativity and Innovation

I am opposed to standardized education reforms because they value imitation and regurgitation over creativity and innovation. Standardized reform policies raise homogenization above individualization and promote compliance instead of passion and interest.

A system of standardization and centralization limits the pursuit of dreams and aspirations to those defined by state bureaucrats as important. Mimicking the convergent practices of totalitarian and authoritarian governments such as China and Singapore that constrict human thought and freedoms is not the way to foster the growth of an innovation economy or strengthen a democracy. The attempt to limit diversity will not promote the entrepreneurial spirit. Limiting original thinking via a constricted set of curriculum possibilities will not lead to cognitive risk-taking.

Perhaps it's time to end the ideologically misguided pursuit of standardization and look to an idea that helped to produce the most Nobel Laureates in the sciences, the largest yearly number of utility patents for the last 55 years, the greatest number of yearly scientific papers, the top universities in the world, and some of the highest levels of global creativity, entrepreneurship, and innovation on the planet (Tienken, 2013b).

### *Locally Global*

I suggest that local standards, developed at cognitively, socially, and morally appropriate levels of mastery, and guided, not mandated, by examples from national content organizations and professional education entities, could help to guide and structure a comprehensive and creative local curriculum customized for the students who will be compelled to experience it. As I look outside the boundaries of the United States in search of skills that will help our children to remain the most economically competitive, I see the need to go beyond the 20th century skills of compliance, conformity, and convergence. I don't see Americans competing for routine manufacturing jobs that pay \$10 a day in China or \$2 in Bangladesh (China Labour Bulletin, 2013). I see the need for resilience, persistence, creativity, collaboration, cooperation, cultural literacy, strategizing, empathy, courage, innovation, entrepreneurship,

and divergent thinking. Those are skills that cannot be developed by authoritarian governments, but are necessary for an innovation economy (Zhao, 2012).

Local education entities should be held responsible for developing challenging curricula and assessments for the students they serve, that capitalize on local strengths, address local needs, and prepare students for a globalized world; but they must be based on what is known scientifically about cognitive development. The curricula should reflect the broad goals that stakeholders identify as being important. Historically, those broad goals have included (a) basic academic skills and knowledge, (b) critical thinking, (c) appreciation for arts and literature, (d) preparation for skilled employment, (e) social skills and a general work ethic, (f) citizenship, and (g) physical and emotional health (Rothstein, Jacobsen, & Wilder, 2008, p. 43).

Consider that the majority of our current workforce, including the more than 90 Nobel Prize winners since 2000 and tens of thousands of utility patent holders from 2012, were educated in an era of no or limited state and national standards (Tienken, 2013b). We had approximately a 150-year history of locally developed curriculum standards prior to the No Child Left Behind Act of 2001 and Common Core, and we have been one of the most competitive nations on the planet.

### *Developmentally Appropriate*

If state and federal education bureaucrats and government officials insist on mandating mastery of curricular expectations in order for schools to receive specific types of funding like Title I, then mastery needs to be based on scientific evidence. Keep in mind that the way the federal and state governments define mastery is that a student can select or produce the correct answer, on the day of the test, on the first try. If the student does not get the answer correct, he or she is assumed to not have

mastered the material. Mastery requirements for any federal requirements should be set at evidence-based, developmentally appropriate levels of difficulty.

What are cognitively developmentally appropriate curriculum standards? Let's start with the premise that students should be exposed to challenging content. However, "challenging" is in the eye of the beholder. What is challenging for one student can be easy or impossible for another. If we expect all children to demonstrate academic achievement at the same levels on the exact same day, or even year—according to standardized expectations that are outside of the cognitive developmental mastery levels of many students—then we certainly set up a situation in which only a portion of students actually will receive the education that will meet their unique needs. Vygotsky (1978) demonstrated that students can work with challenging content with the guidance of a teacher, through guided practice; but that content needs to be within the Zone of Proximal Development of the student.

Even with a teacher's guidance, it is still foolish to believe that all students can demonstrate mastery on a standardized test, on all concepts listed in a curriculum guide, if those concepts are outside of their cognitive mastery levels. Students certainly can learn many challenging concepts, and should be exposed to them, but they should not be expected to demonstrate mastery on one day, on one test, on concepts they are not developmentally equipped to handle.

So what can we expect? Based on more than 30 years of data from the National Assessment of Education Progress (NAEP) and cognitive psychology, it is fair to expect that almost all general education students in grade 4 can carry out simple, discrete reading tasks, and about 93% can comprehend specific or sequentially related information (Tienken & Orlich, 2013). Conversely, only about

25%–35% of grade 4 students can be expected to demonstrate mastery of finding specific information, interrelating ideas, and making generalizations. We should not expect grade 4 students to master synthesizing and learning from specialized reading materials; but we can certainly expose them to that content and include it in our locally developed curriculum if stakeholders think it is important.

## Effectiveness Versus Expediency

Locally controlled, non-standard education is one hallmark of our democracy. Likewise, locally controlled, non-standard education is not expedient because democracy is not expedient. We should not sacrifice effectiveness for expediency, because what is expedient is not always effective. I am not saying that the curriculum should not extend, challenge, and enrich students. It should. And it should span multiple cognitive developmental stages at each grade level to ensure equity—all children getting what they need, not all getting the same.

## What Can You Do?

Teachers and school administrators can review carefully their one-size-fits-all curricula standard by standard. The standards need to be broken down into their specific learning objectives so that teachers can get a better sense of what it is exactly that students need to know and be able to do and the level of cognitive complexity required. Then decisions can be made on which objectives require more concrete scaffolding and support for students or which ones need to be extended.

The extent to which customization occurs should be a local decision based on the students in the school, not the mythical prototype student envisioned by the vendors of standardized curricula. University faculty can play a role by teaching education students how to dissect and customize curricula as well. The good news is that curricula customized at the local level delivers better student learning than curricula mandated

by an education bureaucrat sitting in an office far from the school (Wang, Haertel, & Walberg, 1993).

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