Common Core Standards: The Emperor Has No Clothes, or Evidence

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Illustration from Anderson, H.C. 1932. *Fairy tales by Hans Andersen*, A. Rackham, illustrator. London: George G. Harrap.

The Common Core State Standards (CCSS) initiative continues to gather strength. But the evidence presented by its developers—the National Governors Association (NGA) and the Council of Chief State School Officers (CCSSO)—seems lacking compared to the independent reviews and the available research on the topic that suggest otherwise.

Evidence Please

Evidence-based or data-driven decision making has been at the forefront of education rhetoric for the past 15 years. Administrator

preparation programs have courses on the topic, and preservice teachers are taught to use evidence and data to inform instruction. Many schools have "data committees" that make school-wide decisions. The No Child Left Behind Act ([NCLB] 2002) includes the word *data* 230 times. Surely there must be some quality data available to support the use of the CCSS to transform, standardize, and centralize America's education system.

I wondered whether the official Web site for the CCSS provided such evidence. The site does claim that the standards are "evidence based" and lists two documents to prove it: *Myths v. Facts about the Common Core Standards* and a *Benchmarking for Success* report. The *Myths* document (NGA and CCSSO 2010, 3) presents claims that the standards have "made careful use of a large and growing body of evidence." Evidence derives from scientific experiments and discoveries; thus, one would expect to find references to high-quality empirical research to support the standards. When I investigated that "large and growing body of evidence" offered by NGA and CCSSO, I found that it was not large and, in fact, was built mostly on the *Benchmarking for Success* report (NGA, CCSSO, and Achieve 2010), which was created by the same groups that created the standards.

I always look at the references an author chooses to use as my quick indicator of a study's quality. The *Benchmarking* report has 138 endnotes, some of which are repetitive references. Of the 138 cited pieces of evidence, four could be considered empirical studies related directly to the topic of national standards and student achievement. The remaining citations were newspaper stories, magazine articles, book chapters, notes from telephone interviews, and several tangential studies. Many of the various citations were linked to a small group of advocates and did not represent the larger body of thought on the subject. The *Benchmarking* report, the main source of evidence provided by the NGA and CCSSO, draws most of its support from one study: *The Role of Cognitive Skills in Economic Development* (Hanushek and Woessmann 2008). The use of that study is troubling because it has been criticized exhaustively and shown to be fatally flawed by independent researchers.

Evaluating the Evidence

The Role of Cognitive Skills claims that education drives economics and that national standards will improve education. This argument is methodologically and logically faulty on a number of levels. First, the study presumes a cause-and-effect relationship between standardized test results and national economic growth. Second, the study presumes that grades in school and performance on standardized tests predict individual economic growth later in life. Both may sound reasonable at first blush, but the cause-and-effect logic is untenable.

Most economists understand that variables driving individual income growth cannot be applied to an entire national economy. They are two different units of analysis—two different scales, if you will. It would be like saying that because a certain teaching method was shown to be effective with one type of student in one small school in Maryland, we should base national education policy for all students in all states on that single method. As another example, although there is a moderate to strong correlation between height and weight, we still cannot conclude that someone weighs "59 inches" and expect that to be meaningful. Connecting an individual's education achievement to a nation's economic future is just not possible, empirically or logically.

Certainly, education may influence an individual's achievement or a nation's future, but there is not a straight-line relationship. Further, an increase in education does not guarantee a lifetime of rising salaries. In impoverished nations, income gains can be as large as 20 percent for each additional year of schooling (Psacharopoulos and Patrinos 2004). But consider that the real earnings of U.S. workers with at least a bachelor's degree fell by more than 5 percent between 2000 and 2004 (Mishel 2006). Historically, there has not been an unimpeded, upward sloping linear relationship between the general level of education attainment and a nation's Gross Domestic Product (Lewis 1964; Krueger and Lindahl 2001).

When trying to untangle the relationship between education and economic strength at the global level, one must recognize that not all economies are created equal (Ramirez et al. 2006; Tienken 2008). One cannot simply put every country from the Third International Mathematics and Science Study (TIMSS) or Programme for International Student Assessment (PISA) testing samples into the same economic or education pot. The size of the economy matters. Correlations between test scores and economic strength can be statistically significant and moderately strong when all the small or weak economies such as Poland, Hungary, and the Slovak Republic remain in the sample, whereas the relationship between international test scores and economic strength can be nonexistent or even negative when only the G14 or G21

economies, the strongest economies in the world, are in the sample (Tienken 2008).

The authors of the *Role of Cognitive Skills* (Hanushek and Woessmann 2008) do not cluster the samples to compare "apples to apples," but simply consider all the countries together as though they are all similar. Of course, there is a positive relationship between test scores and economic growth when one includes 18 countries with weak or collapsing economies and international test rankings above those of the United States. Manipulating the data is a statistical shell game; the data actually demonstrates that test scores do not predict economic success. To think that Poland, Slovakia, and Hungary, all countries that outscored the United State in math on the 2006 PISA (Organisation for Economic Co-operation and Development 2009), will ever eclipse the United States in economic prowess defies reality.

Economic Realities

Nations with strong economies (e.g., the top 21 nations) and quality education systems demonstrate a weaker relationship between increases in education attainment and economic growth (Krueger Lindahl 2001; Tienken 2008). In nations with strong economies, the education system probably needs the economy more than the economy needs the education system. Competitive and expanding labor markets in countries with strong economies drive the citizenry to seek higher levels of education. This phenomenon was identified more than 50 years ago when Harbison and Myers (1964, xi) noted, "Education is both the seed and flower of economic development," but somehow those who proffer the idea of curricular and knowledge standardization have not yet discovered this.

Nations functioning at high economic and education levels require larger changes in the education levels of a majority of the citizenry to have a statistically significant influence on the economy (a ceiling effect). Ramirez et al. (2006, 14) found that "School achievement levels appear to have a greater influence on economic growth in countries with lower levels of enrollment." Examples of such countries are Chad, Honduras, and Sudan, where increases in secondary school completion rates can influence the economy positively.

Data-less **Decision Making**

Where is the evidence to support the rhetoric surrounding the CCSS? This is not data-driven decision making. This is a decision hoping for data. I am not aware of many contemporary professions that operate this way. The main evidence offered by the NGA and CCSSO to make the case for a cause-and-effect relationship, or any significant relationship for that matter, between test scores, economics, and the need for national curriculum standards amounts to nothing more than a statistical house of cards. Yet we are going to base the future of our entire education system, and its children, upon this lack of evidence.

Where is the evidence that national standards will cause American students to score at the top of international tests? Some point to the fact that many of the countries that outrank the United States have national, standardized curricula. My reply is that there are also nations with very strong economies, such as Canada, Australia, Germany, and Switzerland, which consistently rank higher than the United States on international tests and do not have a mandated, standardized set of curriculum standards.

Centralized Curriculum Planning

Consider that the United States has a population of more than 300 million and is more ethnically, religiously, and racially diverse than many of the smaller nations that outrank it on international tests. The United States ranks third in the world in terms of population behind China and India and has the largest population of any of the countries that participated in the TIMSS and PISA testing. Size matters because size brings complexity. Finland, the country that usually ranks in the top 5 on international tests has 5.5 million people. In the United States, that's the equivalent of Wisconsin. In fact, the top 6 scoring nations on the 2006 PISA math test have a combined population of 240 million people. Singapore, another country commonly cited as one the United States should emulate has only 4.8 million people, a little more than half the population of New Jersey.

To think that every student in this country should be made to learn the same things is illogical on its face—it lacks face validity. The United States is just too large and too diverse to even want to engage in such folly. We all should have learned from the Soviet Union that central planning just does not work in the long run. The diversity of the United States is its greatest strength. The U.S. economy is able to adapt to change because of the diversity of the workforce. China is trying desperately to crawl out from under the rock of standardization in terms of curriculum and testing (Zhao 2009).

Chinese officials recognize the negative impacts a standardized system has on intellectual creativity. Less than 10 percent of Chinese workers are able to function in multinational corporations (Zhao 2009). Chinese winners of Nobel Prizes are scarce, and China does not hold many scientific patents.

Oversimplification

Mandating a singular curricular program for the entire country is terribly naïve. This approach lacks a basic understanding of diversity and developmental psychology. Further, at its core, it eschews science and condones forcing children to fit the system instead of adjusting the system to fit the needs of the child. Fundamentally, this mind-set lacks child-centeredness and offers an overly simplistic proposal for such a complex set of conditions.

Standardization is a Pollyanna approach to policy making. One cannot simply separate curriculum from culture, emotions, personal backgrounds, prior experiences, prior knowledge, and stages of cognitive and social development. Cognitive Development Theory (Piaget 1952; 1967), Ecological Systems Theory (Bronfenbrenner and Evans 2000), Sociocultural Theory (Vygotsky 1978), and even Maslow's (1943) Hierarchy of Needs for that matter, all tell us that we cannot pretend curriculum operates in a vacuum, apart from other factors. Standardization assumes that children are not active constructors of meaning who bring prior knowledge and experience to the learning situation. It assumes that all students start at the same academic place and will finish with the same results. One cannot just decree that all students will learn the exact same subject matter, at the same depth as mandated by the standards, at the same time (e.g., by the end of grade 1), and expect that to happen.

Curriculum Research

So what does the research suggest in terms of centralized curriculum planning? Wang, Haertel, and Walberg (1993) argued that curriculum has the greatest influence on student achievement when it is a proximal variable in the education process. They found that the closer the curriculum is designed, deliberated, and created near the student, the greater influence it has on learning. In short, curriculum should be a *local* endeavor. When curriculum is treated as a distal variable—occurring distant from the student, handed down from on high, as is the case with the CCSS—its influence is weakened. National policy mandates have the weakest influence of all on student learning because, like the CCSS, they are distal to the actual learning process (Wang et al. 1993). Recently, Tramaglini's (2010) study of 120 New Jersey high schools that serve the state's poorest towns yielded similar results. Tramaglini found that the more proximal the curriculum development process, the better the students performed on the state's high school exit exam. Local involvement and input matter greatly.

Seminal works also emphasize the importance of curriculum as a proximal variable. Among these are the mountains of curricular knowledge created by Francis Parker, John Dewey, Horace Mann, Ralph Tyler, and Hilda Taba, to name just a few. But we have confirmation from others as well. The landmark Eight-Year Study demonstrated that curriculum can be an entirely locally developed endeavor and still produce better results than traditional curricular programs (Aikin 1942), as long as it is based on empirically demonstrated results, something the CCSS lacks. In fact, the Eight-Year Study demonstrated that the less standardized, more diverse, locally developed and designed the programs (based on demonstrated research and theories of learning), the better the students did in college academically, socially, civically, and in their work ethic compared to their traditionally prepared peers. Results from some well-known earlier studies (Collings 1923; Thorndike 1924; Wrightstone 1936; Wrightstone et al. 1939; Jersild et al. 1941) demonstrated that there is not one best curriculum path for students in high school, and standardized curricula is not necessary to achieve superior results in elementary and secondary schools.

Dead Ends with Questionable Means

We have been down the road of standardized curriculum, and that road is a dead end in terms of ensuring that more children learn more. The results from the "college prep for all" initiatives in Chicago beginning in 1997, New York State in 2001, Texas in 2003, and the mandated use of universal state standards via the No Child Left Behind Act of 2002 have done little to close the achievement gap or the socioeconomic gaps that exist in this country (Allensworth et al. 2009). One program for all children just does not make conceptual sense, is intuitively contradictory, and has no empirical backing. The standards have not been validated empirically, and no metric has been

set to monitor the intended and unintended consequences they will have on the education system and children (Mathis 2010).

Equality of curriculum standards is inherently inequitable. Mandating that everyone follow the same set of standards and perform at the same level of achievement guarantees that everyone will not get what they need and that certain groups of students, those that do not fit into the new system, will lose out. These latter students will be labeled "not proficient" or "in need" of academic remediation, when perhaps they just need more choices, more pathways, and more diversity of curricula within the system.

We should be increasing curricular diversity, not seeking to constrict it. We should be trying to help students explore and enrich their intellectual and social growth, not constraining them or funneling them into a small set of subjects. Most of all, we should respect differences among children, not try to extinguish them.

Think It Over

There is no empirical basis for the CCSS initiative, and yet many policy makers and even educators support it. The idea is easy to champion because it appears straightforward, compartmentalized, and uncomplicated. However, keep in mind that education is as complex as other disciplines. For example, if your child's doctor made a high-stakes medical decision without consulting high-quality evidence or experimented on your child without your consent and without informing you of the known negative consequences, we would call that medical malpractice. Is this a case of education malpractice? At a minimum, it is irresponsible and unprofessional given the amount of evidence that calls the CCSS into question.

Developing coherent education and social policy is difficult. The CCSS presents itself as a neat and clean solution, easily manageable, and easy to discuss. Unfortunately, the real world is messy and much more complex. We cannot eliminate the complexity of educating all students by putting forth superficial ideas. Based on the lack of evidence behind the CCSS, it seems uninformed and unethical to support such a massive social experiment on participants who have no voice and thus no choice but to go along.

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