

# **Educational Policies Must Change**

## **The Common Core State Standards Requires a Dramatic Shift in School's and District's Policies**

The Common Core State Standards (CCSS) are not just a replacement for the last set of standards that helped guide No Child Left Behind (NCLB). Instead, they challenge educators to teach significantly different from the past in order to improve student learning and prepare all students to be college and career ready.

NCLB had a noble goal.<sup>i</sup> That goal was to close the achievement gap. The strategies underlying NCLB was for each state to develop their own set of standards, and then create a test to measure those standards. After the tests were developed, each state created their own proficiency levels to measure whether their students were achieving at grade level. This led to vast differences in student achievement between states. In 2009, the highest performing state's students were learning three years more mathematics than the lowest scoring state's students on the eighth grade National Achievement of Education Progress test. California's students were in the bottom 8% of the states.<sup>ii</sup>

During the era of NCLB, school districts stressed to teachers to cover all the standards adopted by the state.<sup>iii</sup> To ensure all the standards were covered, districts created detailed pacing guides and compelled teachers to rigorously follow them. To insure that teachers remained in step with the pacing guide, a new genre of tests was developed. These tests were called benchmark tests. The benchmark tests were administered periodically throughout the school year to determine whether students were learning the right things and at the right time, and whether they would be prepared for the state high stakes test.<sup>iv</sup> The logic of this system sounds reasonable on the surface, but causes many unwelcomed consequences. The most alarming side effect is that students end up learning only low cognitive skills. Another consequence is that the curriculum is very shallow but very wide. Bill Schmidt, professor at Michigan State University and US Chair of the international math test TIMSS, characterizes American math curriculum as "A mile wide and an inch deep."<sup>v</sup>

America's practice of over packing the math curriculum and focusing on covering topics stands in stark contrast to curriculum and instruction in the highest performing countries like Japan, Hong Kong, Singapore, Finland and the Netherlands.<sup>vi</sup> In high performing countries, students slow down and focus on concepts and understanding. The number of big ideas covered in a year in Japan averages around 6-8 per grade; whereas here in America, under NCLB, there were usually over 20 big ideas taught each year. The Japanese educators stressed a more appropriate pace of learning. They have an often repeated saying, "A teacher should teach at the speed of learning."<sup>vii</sup>

In June of 2009, the New York Times soundly declared that NCLB was a failure.<sup>viii</sup> The paper cited stagnant test scores on the state tests, the large number of schools going into "program improvement", the large numbers of schools never getting out of "program improvement", the lack of progress on narrowing the achievement gap, in fact, the gap actually grew during NCLB, and the continued increase in high school dropouts.

As a result, the National Governors Association and the State School Officers commissioned the writing of the Common Core State Standards to reverse the course of NCLB and instead parallel some of the innovations of the highest performing counties. The authors of the CCSS in Mathematics (CCSSM), were give three charges:<sup>ix</sup>

1. To ensure all students are college and career ready by 11<sup>th</sup> grade
2. To ensure the new standards are internationally benchmarked
3. To create standards that are fewer, clearer and higher

These are challenging goals. In fact, if the first charge were ever to be met, it would mean that not a single student would drop out of high school and that every student would be qualified to take either AP Calculus or AP Statistics in his or her senior year of high school. Charge number 3, is a direct statement that the standards needed to be fewer in number, meaning focused on a small number of big ideas like the Japanese and higher, meaning high cognitive demand. Mathematics requiring high cognition are where students are explaining, concluding, justifying, modeling and proving mathematical concepts.

The authors of the CCSSM were diligent in their efforts to address these charges. In a bold decision, they created the *Standards of Mathematical Practices*.<sup>x</sup> Never before in a set of math standards, have math practices been written as standards to assessed upon the students. These eight standards appear at every grade level from Kindergarten through High School. They include requiring students to solve non-routine problems, to persevere in solving them, to reason abstractly and quantitatively, to construct viable arguments, to critique the reasoning of others, to model with math and to look for patterns and then to generalize. All of these standards require students to work deeply and spend significant time on rich problems. Speeding through the curriculum is the enemy of teaching these *Standards of Mathematical Practices*.<sup>xi</sup>

When one looks at the list of actual content standards in CCSSM at a grade level, they appear to be fewer in number. But these standards most often are about big mathematical concepts that may take students many days or weeks to learn. Also different from previous sets of standards, in the CCSSM, no standard is repeated from one grade level to the next. If a standard is listed in third grade, then the intent is for all students to learn that standard that year; it will not be repeated the next year. This too requires instruction to slow down to insure students really understand the math they are learning.<sup>xii</sup> Rushing through topics will not only cause failure that year, but for subsequent years as mathematical foundations will not be formed.

It should be clear that the CCSSM is not merely replacing standards, but rather it is a change of teaching and learning. All other high performing countries have national standards and/or curriculum.<sup>xiii</sup> The United States with the advent of the CCSS is just catching up in policy and educational instructional philosophy to the high performing nations. This is a dramatic shift and will require educational institutions to re-think their policies and practices.

The greatest challenge for US schools and districts is to not apply failed practices to the new CCSS and strategies for teaching and learning. Many schools and districts have continuing policies that they used during NCLB and will now try to implement for CCSS.

But those policies did not work under NCLB and will surely doom instructions in the era of the CCSS. Two outdated and non-productive policies are pacing guide documents and benchmark tests. These two policies insure covering but not deep learning. Phil Daro, co-author of the CCSSM, states, “Covering is the worse thing we can do in math instruction. Covering should be eliminated. Pacing guides, benchmark tests and other policies that encourage covering must be stopped.”<sup>xiv</sup>

Besides the ill effects of pacing guides and benchmark tests, almost all of those instruments are poorly designed and have never been field tested to prove that they produce the desired outcomes to improve learning or even increased achievement on state tests. It is confusing that our well-educated educational leaders so readily adopt and purchase instruments that have no record of quality control or validation. Just because a company sells a test or a district committee creates one, how do we know it is valid? Too many school leaders never question the quality or seek the validity of the tests and pacing guides they recommend and districts adopt. The most likely reason is that most tests and pacing guides have never been validated for learning outcomes.<sup>xv</sup>

We need professionalism and the due diligence to question whether a test or a pacing guide is worthy of governing what, when, and whether students learn. American education must reverse its past failed practices and start questioning which tools and tests they administer to their students. The policies of districts and schools must support highly effective instruction and deep student learning. It is time to question what has been done and shift to what will be best for student learning.

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<sup>i</sup> US Department of Education, No Child Left Behind, 2001

<sup>ii</sup> National Achievement of Education Progress, 2009

<sup>iii</sup> Boaler, J. “For the Love of Learning: Covering the Curriculum”

<sup>iv</sup> Evans, J. “Problems with Standardize Testing”

<sup>v</sup> National Research Center for the Third International Mathematics and Science Study (TIMSS) 1999.

<sup>vi</sup> Gonzales, P. Highlights from TIMSS-R, 2000

<sup>vii</sup> Takahashi, A. “What American Teachers Can Learn from Japan”

<sup>viii</sup> NY Times, “Persistent Racial Gap Seen in Students Test Scores”, Sam Dillion, April 29, 2009

<sup>ix</sup> Common Core State Standards, “The Development Process”

<sup>x</sup> Common Core State Standards in Mathematics, NGA and CCSSO, 2010

<sup>xi</sup> Gardner, H. “Covering is the greatest enemy to learning”

<sup>xii</sup> Leinwand, S. et. al, Principles to Action, NCTM, 2014

<sup>xiii</sup> Schmidt, W. et. al, “International Lessons about National Standards”, 2009

<sup>xiv</sup> Daro P., Common Core State Standards, Ignite Youtube Video, 2010

<sup>xv</sup> Kohn A., The Case Against Standardize Testing, 2000