

# Education Reform: Making this the 'Best of Times'

by Malbert Smith III, Ph.D., President



MetaMetrics.

1290L

When I read and hear about all of the activities associated with the American Recovery and Reinvestment Act (ARRA) and Race to the Top, my thoughts go back to my ninth grade reading assignment of Charles Dickens' "A Tale of Two Cities:"

*It was the best of times, it was the worst of times; it was the age of wisdom, it was the age of foolishness... we were all going directly to Heaven, we were all going the other way.*

With many of the issues before us today—including health care, immigration and education—there are those who believe our country is poised to enter a new and enlightened period. On the other hand, there are those who think our nation is on the edge of the precipice toward foolishness and despair. As an educator, I am excited to see education be a significant part of ARRA and am equally excited to hear President Obama challenge our students and parents to pursue educational excellence. I subscribe to the notion that our biggest assets are our children, and those who are entrusted to their education. However, I am concerned that the increased attention and financial resources committed to education could, in the long term, harm our efforts to achieve equity and excellence in education if we do not proceed with some level of caution.

Of primary concern is that we establish the proper framework and expectations of what these additional resources are likely to yield in terms of educational gains. Too often we look for quick fixes, silver bullets and short-term turnarounds when we should seek a more strategic and long-term perspective. We need to be honest and realistic about where we are, the steepness of the climb to the top, and the end goal. That is, how do we define success, how long will it take to achieve that success, and how will we determine if we are making progress along the way?

If we fail to be proactive in describing what is realistic and how we will measure progress, I fear that the dark side of Dickens' quote will be our fate. If we fast forward four years, I can foresee many pundits pointing to our failure to improve and that we spent too much money on public education and that the return on investment was not worth it. I think it is likely that even if we are hugely successful and judicious stewards of the dollars committed to education, the gains we make may not be quick or dramatic enough to silence the critics. We should model Wall Street and issue guidance as to what to expect in the years to come.

How will we judge our success? The basic goals are twofold: first, we need to ensure that all high school students graduate college- and career-ready; and second, we need to improve our performance relative to other countries as measured by international benchmarks. For the first goal, will we look to gains on ACT or College Board's SAT? How soon should we expect to see gains? And how will we measure preparation for college and the workplace? For international benchmarks, will we look at the results from the 2012 PISA, 2011 PIRLS or 2011 TIMSS? Is success based on whether U.S. students rise in the international rankings? Will we look at the 2012 NAEP results and if we move ten percent more of our fourth, eighth and twelfth graders to proficiency is that enough? Are all of the above dates too soon to make judgments about the efficacy

of our investments? Should we wait until the next testing cycle of these assessments (PISA 2015, PIRLS 2016, TIMSS 2015)?

Again, we need to be realistic about the amount of change and over what period of time to expect the requisite change. In his highly acclaimed book, "The Seven Habits of Highly Effective People," Steven Covey points out that we should always begin with the end in mind. In "Good to Great," Jim Collins points out the importance of being honest about your current status as one embarks on interventions and the importance of "The Flywheel," the additive effect of many small initiatives. We, as educators and policy makers, should draw heavily on the advice of these authors.

In addition to considering time frames, effect sizes and gain scores, we must think about how and where to spend the additional financial resources to achieve the "Flywheel." While not intended to be exhaustive, I submit the following suggestions on where we can achieve the most returns on our investments.

1. **Time.** We need to rethink the amount of time our students spend in school, and find ways to increase the school day, week and year. Students in other countries spend much more time in school: 193 days in OECD countries and up to 240 days in some Asian countries. If the U.S. Olympic team only could practice 180 days a year but had to compete against countries that practiced 240 days, this disadvantage would be reported on the front page of every American newspaper. We need to have the same level of concern for education as we have for sports in our country. For a more complete discussion and analyses of the issue of time, I encourage you to check out the tremendous work of Chris Gabrieli and Jennifer Davis at the National Center for Time and Learning (NCTL) at [www.timeandlearning.org](http://www.timeandlearning.org). In 1994, NCTL issued the report, "Prisoners of Time." In 2007, Elena Silva of Education Sector pointed out the need to rethink the use of time in "On the Clock: Rethinking the Way Schools Use Time." KIPP schools have figured out how to get more hours of instruction, and their approach to time management is worth emulating.
2. **Early education.** Low-income students face tremendous achievement gaps when they enter school. Making investments where practical and feasible is critical to addressing some of these gaps. ETS has published two monographs, "Parsing the Achievement Gap II" and "The Family: America's Smallest School," that provide excellent summaries of the research on achievement gaps and point to suggestions on addressing them. In "Parsing the Achievement Gap II," Paul Barton and Richard Coley note that the initial achievement gaps reported in 2003 remain "apparent and alarming" (Barton & Coley, 2009). One of the main findings from the National Math Panel Report was the considerable amount of knowledge of numbers and other aspects of mathematics that most children acquire before entering kindergarten. This knowledge becomes the foundation of mathematics that the students will learn for years to come. However, children from low-income backgrounds enter school with far less knowledge than their middle-income peers, introducing an achievement gap which progressively widens over time.
3. **Summer loss.** Many students lose ground over the summer when they go home to "text-free zones." A number of researchers (Cooper et al., 1996) have demonstrated that while all students grow during the school year, low-income students' reading skills decline during the summer. Many of the same researchers have pointed out that there are a number of low-cost options to combat this

epidemic. For example, Kim (2006) demonstrated that if students read eight books that match their reading ability and areas of interest over the summer, they can realize gains similar to those students who attended summer school. One example of a state putting this research into action is North Carolina. Governor Bev Perdue, struggling with staggering budget deficits and a commitment to protect education and other core services, seized the opportunity to encourage families to use free resources available through [www.Lexile.com](http://www.Lexile.com) to excite students about summer reading. The Governor sent letters and informational flyers to principals and librarians, and parents received letters and similar information about the "Find a Book" search utility with their child's report card. (Details: [www.governor.state.nc.us/NewsItems/PressReleaseDetail.aspx?newsItemID=452](http://www.governor.state.nc.us/NewsItems/PressReleaseDetail.aspx?newsItemID=452).)

4. **Select interventions and programs that are grounded in the components of deliberate practice.** The instructional principles required to move a student from a novice to an expert in any discipline are well defined. Whether considering an intervention or instructional program, we need to make sure that the publisher has incorporated sound instructional principles. Research suggests that a novice develops into an expert through an intricate process that includes the following components (Glaser, 1996; Kellogg, 2006; Shea & Paull, 1996; Wagner & Stanovich, 1996):
  - *targeted practice* in which one is engaged in developmentally appropriate activities;
  - *real-time corrective feedback* that is based on one's performance;
  - *intensive practice* on a daily basis that provides results that monitor current ability;
  - *distributed practice* that provides appropriate activities over a long period of time (i.e., 5–10 years), which allows for monitoring growth towards expert performance; and
  - *self-directed practice* for those times when a coach, mentor or teacher is not available.
  
5. **Meaningful and actionable assessment data.** The first breakthrough in a new era of meaningful assessments rests upon the idea that educational constructs, such as reading, writing and mathematics, can be measured on vertical/developmental scales. The construction of common vertical scales for these disciplines facilitates communication and clarity. One purpose of education is to foster growth, and it is time that we measure individual student growth. The second breakthrough is predicated upon the premise that just like we can order students from low to high across the vertical scales of reading, writing and mathematics, we also can order instructional content along the same vertical scales. In the cases of reading, writing and mathematics, these breakthroughs have resulted in the creation of The Lexile Framework® for Reading, The Lexile Framework for Writing and The Quantile Framework® for Mathematics. Using these frameworks, the educational community has seen many benefits. Test and text publishers can and have linked their products to these underlying scales in such a way that educators now can connect assessment with day-to-day instruction in the classroom. In his essay on national standards, Chester Finn (March, 2009) suggested that the country could take advantage of candidate scales—the Lexile® and Quantile® scales—that already have been voluntarily adopted by states and educational publishers.
  
6. **Teacher quality and school leadership.** It is well known that the distribution and staffing of highly qualified teachers is anything but random. Our high-poverty districts are the hardest to staff and maintain continuity of leadership. In a recent conversation with a state chief, I discovered that the

problem with sending in “school improvement” teams was a lack of adequate accommodations (in some cases, the closest hotel was over 90 miles away). We need to utilize digital solutions to level the playing field. The days of the digital divide must give way to the democratization of opportunity that digital resources provide. In “Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns,” Clayton Christensen, Curtis W. Johnson and Michael B. Horn provide a rich background upon which we should all consider deploying technology to better serve students’ needs. Web-based resources and digital learning can help our remote and poverty-stricken districts have access to a world-class 21<sup>st</sup> century education.

This is a very exciting window of time and opportunity. Let’s use it in such a way that we will all look back and say, “it was the best of times.”

### **References**

- Barton, P. E. & Coley, R. J. (2009). *Parsing the achievement gap II*. Princeton, NJ: Educational Testing Service.
- Barton, P. E. & Coley, R. J. (2007). *The family: America’s smallest school*. Princeton, NJ: Educational Testing Service.
- Christensen, C. M. (2008). *Disrupting class: How disruptive innovation will change the way the world learns*. New York: McGraw-Hill.
- Cooper, H., Nye, B., Charlton, K., Lindsay, J., & Greathouse, S. (1996). The effects of summer vacation on achievement test scores: A narrative and meta-analytic review. *Review of Educational Research*, 66, 227-268.
- Covey, S. R. (2004). *The 7 habits of highly effective people*. New York: Simon and Schuster.
- Ericsson, K.A. (1996). *The Road To Excellence: the Acquisition of Expert Performance in the Arts and Sciences, Sports, and Games*, Erlbaum Publishers.
- Ericsson, K.A., Charness, N., Hoffman, R.R., and Feltovich, P.J. (2006), *The Cambridge Handbook of Expertise and Expert Performance*, Cambridge University Press.
- Finn, Jr., Chester E. (2006). *Can we get to national standards, considering the pitfalls?* *The Education Gadfly*, The Thomas B. Fordham Institute.
- Kim, J. (2006). Effects of a Voluntary Summer Reading Intervention on Reading Achievement: Results from a Randomized Field Trial. *Educational Evaluation and Policy Analysis*, Vol. 28, No. 4, 335-355.
- NECTL (1994). *Prisoners of Time*, Report of the National Education Commission on Time and Learning, <http://www.ed.gov/pubs/PrisonersOfTime/index.html>
- Silva, E. (2007). *On the clock: Rethinking the way schools use time*. Washington, DC: Education Sector.

### **About the Author**

Malbert Smith III, Ph.D. is president of MetaMetrics, an educational measurement organization. MetaMetrics’ renowned psychometric team develops scientifically based measures of student achievement that link assessment with instruction, foster better educational practices, and improve learning by matching students to materials that meet and challenge their abilities.

MetaMetrics®, the MetaMetrics logo and tagline, Lexile®, Lexile Framework®, Lexile Analyzer®, the Lexile logo, Quantile®, Quantile Framework® and the Quantile logo are trademarks of MetaMetrics, Inc., and are registered in the United States and abroad. The trademarks and names of other companies and products mentioned herein are the property of their respective owners. Copyright © 2009 MetaMetrics, Inc. All rights reserved.