



Knowledge Matters

Restoring Wonder and Excitement to the Classroom

Top Three Takeaways

1. Many educators and parents feel that a well-rounded education has been neglected in favor of too tight a focus on math and reading—and they are right.

2. Decades of research illustrate that students with broad knowledge are actually stronger readers.

3. A rich range of course offerings isn't a nicety. It's a vital part of a thorough education, and a crucial element of social justice.

John B. King, Jr., is the secretary of education at the U.S. Department of Education. His previous positions include commissioner of education for the state of New York, managing director with Uncommon Schools, and co-founder and co-director for curriculum and instruction of Roxbury (Massachusetts) Preparatory Charter School. He began his career in education teaching high school social studies in San Juan, Puerto Rico, and Boston, Massachusetts.

What School Can Be

By John B. King, Jr.

When I was a high school social studies teacher in Boston, I had a student named Ricardo. I guarantee you, every teacher has had a student like him—brilliant, fascinating, but disengaged and just barely skating by. In my 11th grade class, he was passing by the thinnest margin possible. But when we did a unit on the Great Migration and the Harlem Renaissance, he got excited about the topic. He came to care deeply about a paper he was writing about Marcus Garvey because he had his own ideas to share. He must have written six or seven drafts of the paper, but he was not going to stop until it captured his thoughts exactly. He said that paper changed his perspective about academics, and made him wish he had known as a ninth grader what it takes to succeed in school. That's a huge insight: Finding his passion changed his whole approach to being a student.

For so many students, a wide range of possibilities in school, powerfully and creatively taught, can be exactly what it takes to make the difference between disengagement and a lifelong passion for learning. But today, that's not happening enough.

I hear frequently and passionately from educators and families who feel that key elements of a well-rounded education have been neglected in favor of too tight a focus on math and reading.

Sometimes, that's because of constraints on resources, time, and money. Often, teachers and administrators have told me, it's because math and English language arts were focused on so intensely by some districts and schools under No Child Left Behind that other subjects were under-attended to or even ignored. The consequence for teachers in some places became daily choices between the well-rounded education their students need and deserve, and too narrow a definition of accountability. In many places in this country, testing became excessive, redundant, and overemphasized, and the U.S. Department of Education is serious about helping states and districts to change that.

Done well and thoughtfully, assessments provide vital information to educators and families, and identify the gaps that must be addressed to ensure equity. But in some places, an exclusive emphasis on the tested subjects drove a narrowing of what was taught and learned; worse, test prep and narrowly defined “time on task” sometimes came to replace a diversity of classes.

The evidence doesn't show a vast, nationwide abandonment of subjects outside of math and English language arts, but there is plenty of reason to believe that students are not getting the instruction in science, social studies, the arts, and

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world languages that they need. For example, one survey¹ found that in the elementary years, students are spending 21 minutes a day or less on social studies, and another study² found not much more on science. I count myself among those who worry that the balance has shifted too much away from subjects outside of math and English that can be the spark to a child's interest and excitement, are essential to success in reading,³ and are critical to a child's future. Being a well-educated person means being skilled and knowledgeable about a wide range of subjects, expert and passionate about a few, and confident in the quest for learning more.

The good news here is that, with the passage of the Every Student Succeeds Act—the welcome replacement for the No Child Left Behind law—the opportunity to widen how we understand educational excellence is suddenly ripe. It's a great chance to right the balance in places where the learning focus has become too narrow—and to do so in ways that expand, not dilute, civil rights.

Because the simple fact is, every kid in this country needs and deserves access to the subjects that go into being a well-educated person. Music and art; world languages; physics, chemistry, and biology; history, civics, geography, and



government; physical education and health; coding and computer science—these aren't luxuries that are nice to have. They're what it means to be ready for today's world.

A well-rounded education can help erase the either-or choice between academic and career-focused education in ways that enhance readiness for college rather than steering away from it. Just ask the kids at Francisco Bravo Medical Magnet in Los Angeles, where 83 percent are enrolled in Advanced Placement (AP) courses—and get to do hands-on work at USC's Keck School of Medicine.

A well-rounded education starts in the early years, with high-quality preschool that makes time for play, exploration, and discussions. It encompasses skills we don't traditionally think of as academic, but that can be cultivated through rigorous academic work, such as grit, persistence, and patience.

And the research is clear that a well-rounded education matters.

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You understand a reading or a lesson better when it touches on knowledge or experiences you've encountered before, which is why students with wider knowledge read and learn more easily.⁴ It's the same idea as the "30-million word gap"—the difference in the number of words kids from affluent and poor families have encountered by the time they enter school, and how differently that sets them up for success.⁵ Decades of findings from researchers like Daniel Willingham at the University of Virginia illustrate that students with broad knowledge are actually stronger readers.⁶

We see the same principle playing out in science, technology, engineering, and math (STEM). Science achievement gaps show up as early as kindergarten, and if they aren't addressed, they stick around, at least to the end of eighth grade.⁷ Kindergarteners who have been exposed to concepts and vocabulary about the natural world in their early years have an inherent advantage.

The implications for educational justice are profound. Because too often, it's kids from low-income families, and kids of color, who start out on the wrong side of those word gaps. Frequently, they are the ones who may miss out on a wide range of experiences, from museum visits to travel. And too often, they are the ones who lack access to a wide range of challenging courses once they get to school.

The same is true for gender gaps—which in math, show up in the early grades, and get wider later.

The bottom line is clear: A rich range of course offerings isn't a nicety. It's a vital part of a thorough education, and a crucial element of social justice.

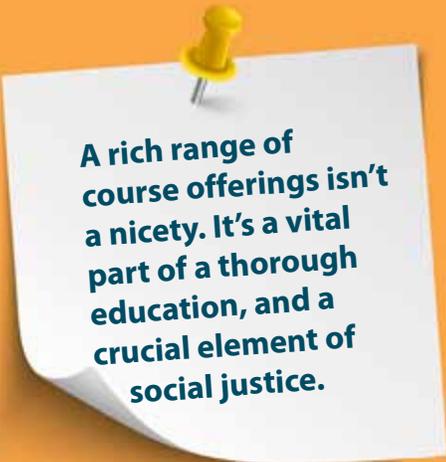
That's why we—states, districts, schools, and my own Department—need to act to change the current reality.

States must commit to providing all of their districts with the resources they need to provide a high-quality, well-rounded education to all students regardless of race or zip code. Arts instruction, science labs, and school counselors—just to cite a few examples—are not luxuries or extras that should be dependent on fundraising from parents or foundations; they are essential.

Districts have to support their school leaders in providing teachers with the resources, professional development, and most importantly, time to develop and implement a well-rounded curriculum.

The good news here is that the passage of the Every Student Succeeds Act makes the work to provide a well-rounded education to all students easier. Under the new law, states now have the opportunity to broaden their definition of educational excellence, to include providing students strong learning experiences in science, social studies, world languages and the arts, as well as AP and International Baccalaureate classes—and even supporting students' socioemotional development. That's a huge and welcome change.

And, when students in some schools are falling behind, states now have wider options for the kind of interventions they can put in place—including options like the Turnaround Arts Initiative funded by the Department. I've had the opportunity to see struggling schools make real change by infusing the arts



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into their school models, or launching new high-quality career and technical education programs, or taking a dual-language approach.

Every day, I also see schools through the experiences of my daughters, who are enrolled in public schools in Maryland. My daughters attend the kind of schools that should be the norm for every child in America—schools with good resources that pull together kids whose families differ in race and income and that provide an education that’s stronger because of that diversity.

Through their eyes, I see the importance each day of a well-rounded education, and the excitement it brings.

My younger daughter’s fourth-grade science class recently explored various ecosystems. They created a terrarium and an aquarium, and tracked data to see how they changed over time—temperature, plant growth, the pH of the water. And thanks to that hands-on study, she came home with a new interest in how the world works and an enduring curiosity about nature.

My daughters’ education will shape the people who they will become, not just what they will achieve academically. Both of them have studied music, dance, and theater. I don’t know if either will become a famous guitarist or a professional ballerina. But I do know that they are developing a kind of aesthetic appreciation that will bring them joy and widen their worlds for the rest of their lives.

And really, that’s what this is about: that inextricable intersection between what our kids learn and who they become. I am who I am because a teacher and a school believed it was worth the time and effort to widen my horizons.

That’s what every student in this country deserves. Let’s work together to make it possible.

This paper is adapted from “What School Can Be,” a speech Secretary King gave on April 14, 2016, at the Las Vegas Academy of the Arts in Nevada. To read the full speech, go to www.ed.gov/news/speeches/what-school-can-be.



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Endnotes

¹ VanFossen, P. J. (2005). “Reading and math take so much of the time...: An overview of social studies instruction in elementary classrooms in Indiana,” *Theory and Research in Social Education*, 33(3), 376–403, available at <http://eric.ed.gov/?id=EJ762548>; see also Banilower, E. R., Smith, P. S., Weiss, I. R., Malzahn, K. A., Campbell, K. M., and Weis, A. M. (2013). *Report of the 2012 National Survey of Science and Mathematics Education*, Table 4.2, Chapel Hill, NC: Horizon Research, Inc., available at www.horizon-research.com/2012nssme/wp-content/uploads/2013/02/2012-NSSME-Full-Report1.pdf.

² Blank, R. K. (2013). “Science instructional time is declining in elementary schools: What are the implications for student achievement and closing the gap?” *Science Education*, 97(6), 830–847, available at <http://onlinelibrary.wiley.com/doi/10.1002/sce.21078/abstract>.

³ Willingham, D. T. (2006). “How knowledge helps: It speeds and strengthens reading comprehension, learning—and thinking,” *American Educator*, Spring, available at <http://www.aft.org/periodical/american-educator/spring-2006/how-knowledge-helps>.

⁴ Nisbett, R. E. (2013). “Schooling makes you smarter: What teachers need to know about IQ,” *American Educator*, Spring, available at <http://www.aft.org/sites/default/files/periodicals/Nisbett.pdf>.

⁵ Hart, B. and Risley, T. R. (1995). *Meaningful Differences in the Everyday Experience of Young American Children*, Baltimore, MD: Brookes, available at <http://products.brookespublishing.com/Meaningful-Differences-in-the-Everyday-Experience-of-Young-American-Children-P14.aspx>.

⁶ Willingham, D. T. (2009). *Why Don't Students Like School? A Cognitive Scientist Answers Questions About How the Mind Works and What It Means for the Classroom*, San Francisco, CA: Jossey-Bass, available at <http://www.amazon.com/Why-Dont-Students-Like-School/dp/047059196X>.

⁷ Morgan, P. L., Farkas G., Hillemeier, M. M., and Maczuga, S. (2016). “Science achievement gaps begin very early, persist, and are largely explained by modifiable factors,” *Educational Researcher*, February 22, available at <http://edr.sagepub.com/content/early/2016/02/14/0013189X16633182.full?keytype=ref&siteid=spedr&ijkey=OhT8FvkXirs9Y>.

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Knowledge Matters is a campaign to make building knowledge Job One for American education.

It's time to restore history, science, geography, art, and music to the education we give to all students, especially those least likely to gain such knowledge outside school. Greater comprehension, critical thinking, curiosity, and equality will be our reward.

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