Making the Case for Change

Investing in the transformation of American education is the greatest investment in our future. No matter what children want to do with their lives, they need a high-quality and relevant education to do it. The knowledge, lessons and skills we prepare our children to possess will determine whether America can meet our greatest challenges in the future—to sustain our economic vitality and national security. The better job we do of accelerating student progress and achievement for all students, the better we can guarantee that ALL students will be READY. Ready to:

- Seize opportunities in a changing economic environment;
- Be personally responsible for themselves;
- Possess creative problem-solving skills; and
- Participate in and understand the world in which they live.

Imagine an education system that ensures these readiness standards...that graduates students who are informed and socially-responsible individuals who have the will and leadership skills to effectively engage in economic interactions with foreign countries...who have the cognitive skills to develop policies, practices and products that ensure our national security.

For those who say it can’t be done—especially during these economic times—the research is compelling:

- “the aggregate growth numbers suggest that the annual growth dividend from an effective [education] reform plan would cover most conceivable program costs over a relatively short period...In other words, the increased GDP through improved student achievement would almost immediately cover current teacher salaries and benefits fully—suggesting considerable room to pay for better teachers and to compensate for the higher risk of entering teaching” (Hanushek, 2009).

- “Faster [educational] reforms will have larger impacts on the economy, simply because the better workers become a dominant part of the workforce sooner...But even a 20- or 30-year reform plan begun in 2005 has a powerful impact. For example, a 20-year plan would yield a GDP 5% greater in 2037 (compared with an economy with no increase in educational quality)...Over a 75-year horizon, a 20-year reform yields a real GDP 36% higher than without a change in educational quality...The accumulated evidence from analyses of economic outcomes is that the quality of education—measured on an outcome basis of cognitive skills—has powerful economic effects. Economic growth is strongly affected by the skills of workers. What people know matters” (Hanushek & Wößmann, 2008, p. 10).

Developing and implementing a truly effective educational system requires extraordinary leadership and a commitment to work together toward success. First, we must attract, develop and retain the best principals and teachers and provide them with the resources and support they need to be successful. Then, we need to hold them accountable for their results. We also need to engage the entire community in this effort—students, families, business and community leaders, unions, school boards, senior citizens, foundations and others. We have an obligation to collaborate about ways we each can contribute to addressing this national imperative.

This paper provides an overview of three overarching strategies that will transform our education system to ensure that all children are college- and career-ready:

1. Recruit, develop and retain the right people;
2. Identify and provide them with access to the right measures; and
3. Ensure they can use that information to improve and implement the right, proven practices.
As we learn in Jim Collins’ book, Good to Great, “the old adage people are your most important asset turns out to be wrong. People are not your most important asset. The right people are” (Collins, 2001). In an education system that has historically relied on proxies of measures of talent, assumptions around effective practices and egalitarian systems of compensation, we believe that clarity, hope, direction and real transformation in education come through focusing on human capital development that starts with attracting and retaining the right people. Human capital development refers to the practice of increasing employees’ value to their organization and themselves through education, training, feedback and experience.

The research and data are clear—teacher quality is the single most important variable impacting student achievement. “Everything else—educational standards, testing, class size, greater accountability is background…Ultimately, the success of U.S. public education depends upon the skills of the 3.1 million teachers managing classrooms in elementary and secondary schools around the country” (Gordon, Kane, & Staiger, 2006).

Research also tells us that teacher quality is not randomly distributed across schools, making it unlikely that students in many schools will learn what they need to be prepared for college and work. Peske and Haycock reported the “…painful truth: Poor and minority children don’t underachieve in school just because they often enter behind, but also because the schools that are supposed to serve them actually shortchange them in the one resource they most need to reach their potential—high-quality teachers” (2006).

Bill Gates suggests that, “If the entire U.S. for two years had top quartile teachers, the entire difference between us and Asia would go away and within four years we would be blowing everyone in the world away…We should reward those people…we should retain those people…we should find out what those people are doing and transfer those skills to other people…Education is the most important thing to get right for the country to have as strong of a future as it should have” (TED speech, February 2009).

Transforming America’s education system demands that every school has a principal who is empowered with the skills, knowledge and information to lead effectively, and every classroom has a competent and caring teacher. Principals must be able to effectively provide the vision, expectations, motivation, guidance and support needed to foster school transformation and a positive culture of continuous improvement. Teachers provide the ways and means of carrying out school transformation. They need to be full partners in education reform. Real transformation in the academic success of all students in a district can be directly linked to the influence of highly effective principals and teachers working together. When principals and teachers act on timely, relevant and reliable information to make decisions, rapid improvements can be made in accelerating student progress and achievement. There is no substitute for the right people empowered with statistically-reliable information and the knowledge of proven practices to make confident, informed decisions for improvement.

As the U.S. Department of Education and many other key education stakeholders, including the Bill & Melinda Gates Foundation, are increasingly focusing on human capital development, we have a unique opportunity in the history of education to dramatically change even the most entrenched educational processes to ensure the highest quality and most relevant educational opportunities for all students. Together, we must arm schools with strategies and resources to identify, recruit, retain, develop, distribute and reward talent in schools and to build accountability systems that increase expectations and results.

**The Right People**

**Human capital development strategies that will transform our schools include:**

- Improving hiring processes and career-ladder decisions
- Designing selection processes that are reliable predictors of success for teachers
- Creating programs to onboard and mentor new teachers in their first three years
- Strategically placing teachers in classrooms to align with students’ diverse learning needs
- Training principals on how to effectively guide their teams through data-driven, differentiated planning processes
- Developing recognition and reward programs that help to attract and retain talent
- Providing incentives to more equitably distribute talent across schools
- Fostering innovation to leverage the practices of highly effective principals and teachers
- Developing focus improvement plans that target employees’ specific needs and provide interventions and consequences for those who do not improve
We can guess what causes students to drop out of school. However, we believe a better solution can be derived from the old adage, “What gets measured gets done.” Using data allows us to separate what we think is happening from what is actually happening and establish a baseline of performance. A data-based approach to improvement also allows us to identify and understand relationships that might help explain variation between effective and ineffective practices.

In recent years, the No Child Left Behind Act has begun to provide us with a robust set of data from which to begin mining reliable measures. To provide a personalized approach to teaching, educators must be able to produce, access, navigate and interpret multiple data sources. In particular, educators need access to:

- Value-added analysis at the building, grade and classroom levels;
- Student projections of future achievement; and
- Formative assessment data.

Student achievement is significantly impacted by educators’ ability to use this data effectively and efficiently. Schools need access to summative value-added and achievement information and formative assessment information to gauge the impact of their current educational practices, classroom curricula and professional development on student progress over time. Value-added analysis brings a new and critically important kind of diagnostic information to allow districts to be strategic and focused in their instructional decision-making. Both progress and achievement data are essential to provide a comprehensive picture of school and teacher effectiveness and to allow educators to focus assessment, analysis, planning and implementation activities on the aspect of the schooling experience with which they have the most direct influence, responsibility and control. By measuring and connecting student progress and formative assessment data to other data sources and engaging educators in focused planning and differentiated professional development, teachers will accelerate their students’ progress rates.

Research also shows that, “Where sound assessment for learning practices were implemented, students performed on average 30 percentile points more than places not using the strategies. The largest gain was for the low-achieving students” (Black & Wiliam, 1998). However, assessment training and support are virtually absent in pre-service and in-service professional development programs. One of the most critical times to use assessment is during instruction. This practice helps teachers affirm students’ understanding of intended teaching objectives and reveal misconceptions, not just label achievement status.

Substantially altering classroom practices, by changing the instructional interaction between teachers and students, also demands strong support systems. To date, a limited number of educators are using value-added and student projection measures along with high-quality formative assessments to create a more personalized learning environment for their students. Only a handful of districts across the country are accurately linking student progress and teacher performance in an attempt to identify and reward teacher effectiveness. School districts that do use these measures and processes are achieving strong results. We need to make sure that all school districts have access to such data to inform their practices.

Other measures of classroom effectiveness are being developed to strengthen the transformational change within our schools, such as the research being done by the Bill & Melinda Gates Foundation around measures of student effort and of teacher-content knowledge. This comprehensive approach to using the right measures will inform staff recruitment, hiring and retention decisions and allow best practices to be uncovered and replicated across the organization.

Measures that will transform our schools include:

- Data sources that track the academic growth of students from PK–16
- Measures of teacher, principal and school effectiveness
- Student projections to future achievement
- Formative assessment to guide instruction in real time

Student achievement is significantly impacted by educators’ ability to use data effectively and efficiently.
Developing the right people and using the right measures also require a corresponding set of high-leverage, effective practices and methods that will allow schools to accelerate student academic progress. As the research confirms that teachers have the greatest influence on students’ academic success, it is imperative that we understand what highly effective teachers do in the classroom.

We need to tap into the expertise of our highly effective teachers who have helped students maximize their academic growth.

To continuously improve, we must create ways to research, mine and share proven practices that are repeatable and scalable. In the 2008–2009 school year, the Houston Independent School District initiated a study, supported by the Bill & Melinda Gates Foundation and conducted by researchers from Battelle for Kids, to uncover the practices of highly effective teachers. A group of more than 60 core teachers in grades 3–8 in math, science, language, reading and social studies who facilitated the highest levels of student academic growth participated in the study. These individuals had the highest average value-added Cumulative Gain Index for two consecutive years based on 2006–2007 and 2007–2008 teacher-level value-added results according to SAS® EVAAS® data.

The study uncovered the following recurring themes across each of the subject area groups:

- Instruction that supports and engages all students;
- A child-centered focus that fosters relationships and is responsive—teaching to each student’s needs;
- A consistent and predictable classroom environment that is positive, safe, organized and conducive to high-quality learning for all students; and
- Professional self-efficacy and continuous improvement through collaboration, personalized professional development and supportive leadership.

Using different types of media and experiences, highly effective teachers’ proven practices can be discussed and transferred from educator to educator. Principals need to foster a culture of collaboration that supports idea-sharing so that proven practices can be taken to scale.

Through collaborative learning experiences, educators’ collective energy, excitement and promise will give way to hope, encouragement and improved results.

Another powerful and convenient way to invest in our schools is to provide educators with online, self-paced learning—accessible any place, any time—24 hours a day, seven days a week. Just as all students don’t need the same content or have the same learning styles, adults need personalized learning experiences as well. New teacher and principal learning paths will ready individuals for success. And, personalized learning paths should be developed to align with educators’ opportunities for growth throughout their careers. Online education provides a real-time service and assessment of the users’ progress and learning. School leaders need to support and encourage the use of such resources.
In Closing

This is the perfect moment to educate our children on how they can achieve the opportunities to thrive in college, in their careers and in making the world a better place. Many of the solutions and practices outlined in this paper are ready and available through different organizations that work to improve school performance in a focused and data-driven manner. By mining best practices—localized to each district’s culture and greatest areas of concern—we will best leverage financial resources to establish and implement programs that lead to success for all students.

“Everyone has defining moments—moments of opportunity to make the world a better place. The moments arise. The question is having the character and the courage to act upon them” (Zacks, 2006).

Case in Point: Houston Independent School District

Over the past few years, the Houston Independent School District (HISD), the country’s seventh largest urban district, has been implementing ASPIRE (Accelerate Student Progress. Increase Results & Expectations), which is a comprehensive, educational-improvement and performance-management model. A large component of the model involves the implementation of measures of teacher effectiveness and one of the country’s largest pay-for-performance systems called the ASPIRE Award Program. HISD successfully implemented a linkage system as a critical first step to improving the quality of the data being used to measure teacher effectiveness. The district has used this information to research highly effective teaching practices, improve the distribution of teacher talent and help improve the overall quality of instruction across the district. These efforts have resulted in significant accomplishments for the district, including:

- An increase in the number of Recognized and Exemplary schools from 35 in 2005 to 205 in 2009;
- Achievement gap narrowed between White students and African-American students by 22 percent, between White students and Hispanic students by 30 percent and between White students and children of poverty by 57 percent;
- Commended-level individual performance increased by 50 percent on the state reading test, 100 percent on the state mathematics test, 40 percent on the state writing test, 130 percent on the state science test and 105 percent on the state social studies test; and
- An increase in college-readiness in English Language Arts (from 28 to 53 percent) and math (from 35 to 61 percent) based on performance standards on the state accountability tests in these content areas.

This is just one example of success that we can follow. We need to guarantee that there are many more such stories to share—by developing longitudinal data systems, conducting research and developing vehicles for continuous improvement and collaboration so that educators from across the country can learn from one another.

To prepare our children for success and protect our nation’s economic vitality and security, we must ensure that our education system offers students the right principals and teachers who have the right measures and information they need to collaborate, share and implement the right practices. Through strategic partnerships, focused planning and funding, the possibilities for improvement are endless. This investment is not only an investment for children today, but for all Americans tomorrow.

If we focus on these transformational efforts, we can be confident that when we peer into the classrooms of the future, we will see children ready to be the future leaders of and contributors to a brighter tomorrow.
References


To prepare our children for success and protect our nation’s economic vitality and security, we must ensure that our education system offers students the right principals and teachers who have the right measures and information they need to collaborate, share and implement the right practices.

About Battelle for Kids

Battelle for Kids is a national, not-for-profit organization that provides strategic counsel and innovative solutions for today’s complex educational-improvement challenges. Our mission-driven team of education, technology, communications and business professionals specializes in creating strategies that advance the development of human capital, the use of strategic measures and the implementation of effective practices in schools. We partner with state departments of education, school districts and education-focused organizations to advance these strategies with the shared goals of: improving teaching effectiveness and student progress; informing instructional practice in real time; recognizing and rewarding teaching excellence; and aligning goals and maximizing impact in schools. For more information, visit www.BattelleforKids.org.