

Understanding Learning as the Core Business of Schools

If you think our future will require better schools, you're wrong.
The future of education calls for entirely new learning environments.
If you think we will need better teachers, you're wrong.
Tomorrow's learners will need guides who take on fundamentally different roles.¹

—KnowledgeWorks Foundation and Institute for the Future
2020 Forecast: Creating the Future of Learning

Jan Stewart was attending an introductory networking dinner with some colleagues, a cohort of principals who had joined a professional network of school leaders that had agreed to work in targeted district schools to increase student achievement. They were enjoying this time to get to know each other and learn about their individual school cultures and challenges. Jan had been the principal of Eastville Middle School for several years and smiled as she listened to the spirited talk. The conversation began with broad ideas about new theories and ways of addressing individual needs and learning diversity through approaches like differentiated instruction, universal design for learning, curriculum mapping, and the like. The principals talked about needing new ways to deliver instruction and debated online learning, smaller classes, looping, and modifying use of time.

Typically conversations drifted toward district policies that the principals were unhappy with, but tonight was different. Jan's friend Brian Thomas, the new principal at Marshall Junior High, began sharing a story about an individual student he was concerned about. Darren, a bright eighth grader, was generally a strong student, although he'd had some recent difficulties. In particular, he'd received poor grades on writing assignments, especially on essays and research papers. His state writing test had just come back, and he had barely scored a 2 within the 1 through 4 ranking, putting him at below grade level.

Darren did well on multiple choice tests and his handwriting was fine, but his papers, reports, and essays were returned to him with the same messages: "Highly disorganized," "Needs more elaboration" and "Incomplete." The continued negative feedback on writing assignments frustrated Darren and he felt humiliated about it. "I don't get it," he had said when Brian asked what was going on. "I rewrote that essay twice and it still came back with marks all over it."

His teachers thought highly of Darren, noting that he participated in class discussions and was well liked by his peers, but they had exhausted their ideas for strategies to help him. Darren's language arts teacher said she'd taught him the 6+1-trait writing process and showed him the state writing test rubrics that described the difference between a score of a 2 and the acceptable 3. His social studies teacher had introduced a writer's workshop as part of her class. These hadn't produced a change in Darren's writing. His teachers shrugged and said Darren might be going through a rebellious period and not putting effort into his assignments, or he was just lazy. One teacher firmly believed that Darren had learning disabilities that should be addressed in a resource room and not her classroom, pushing to send Darren through the referral process.

Brian worried that he likely had dozens of Darrens in his new school and wondered how he would be able to help the teachers reach those students while also trying to inspire them to transform education for all the students that attended—and would attend—Marshall in the future. Darren was a particular risk, but Brian asked, "Won't we let down all of our students if we keep doing business the same old way?"

This chapter will explore

- A model of education centered around learners and learning
- The rationale for embracing the science of learning
- The role of learning leader versus school leader
- Use of a “small wins” strategy to support change in school practices

What’s Today’s School Leader to Do?

Anticipating the future while attending to the here and now is the work of all school leaders who are devoted to educating all learners. At its core, education is a future-oriented enterprise, charged with preparing the next generation of workers, citizens, and leaders. For decades, political and policy conversations about education have been centered on the knowledge competencies determined to be essential for students to compete in a twenty-first-century work environment and to thrive in a democracy. The ultimate measure of success is documentation that students have acquired skills and competencies at acceptable levels and graduated from high school ready for postsecondary life. Every May, communities celebrate milestones of graduation: kindergarten, fifth grade, eighth grade, and high school.

And every May and June, teachers and principals are haunted by the faces that have disappeared. Was there something else that could have been done to increase engagement and stem the dropout rate of students who struggle to learn and find success in our schools? Communities of educators across the country engage in such debates. They hope and plan for grand educational change and reform to address the systemic issues that are part of the chronic problem of poor school performance for so many children. Individually, principals and teachers aspire to save as many of these children as they can.

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The reality of schools is that the tyranny of the urgent drives what happens in classrooms every day. School leaders live in the moment, addressing the immediate demands of learners encountered, day after day. Getting second graders reading fluently, preventing a fourth-grade slump, getting all ninth graders to pass algebra, helping students make it to senior year, and navigating the annual ritual of high-stakes testing is the world of school leaders. It's also preventing cruelty from bullying or the humiliation when a student is not learning at a predetermined pace, or the disengagement when students feel no adult knows or cares who they really are. For every student claimed as a success story, the ones who missed the mark haunt all of us. How do we—as individuals who lead—bring new thinking to solve this enduring dilemma?

Lead with a Bifocal Lens to Transform Learning

Many school leaders view their work through a “bifocal lens” that permits them to lead with clarity of a future vision of success for all students and a focus on the current demands in the school environment. A bifocal lens permits a learner-centric view of education by which a leader can shift effortlessly between the future and present. It allows a leader to define the tactical steps to move toward a learner-centric school environment that serves both teachers and students. While engaging in the daily hard work of creating this culture, such a lens incorporates a compelling scenario for the school that fits with new, inspiring goals of education and learning. Such leaders have found they can address the immediacy of specific learner needs using the findings from a new science of learning such as the All Kinds of Minds approach; this is fueling the transformation of schooling better suited to the learner-centric world described by many education futurists.

A bifocal lens also helps school leaders address learning at three levels: their own, their colleagues and faculty, and their students. Addressing learning at these levels by working to understand *how* people learn reshapes our perspective when we—or those individuals in our charge—aren't succeeding. Typically we view those who aren't succeeding as lacking something internal (motivation, intelligence) or external (opportunity, social well-being, and so on). We focus on interventions to make up for those things. And while this has value, those interventions don't come close to solving the problems of why many teachers and students still don't succeed. Stepping back, helping all understand how they are wired to learn so that they can take ownership for their learning profile (and the strategies that can enable greater success) is a new dimension to bring to the table.

School leaders who are determined to help teachers inspire all students to bold accomplishments while identifying the right strategies for their most complex and struggling learners know one thing to be true: what makes this bifocal lens work is making learning the core business of school. This isn't the same as emphasizing assessment data, standards, and instruction. Rather, it means focusing on the foundation upon which all newer initiatives and drivers for change rest: an understanding of *how* people are wired to learn and the implications for bolder notions of schooling and instruction. Making learning the core business of schooling is a cornerstone of the All Kinds of Minds approach.

“Researchers have made remarkable progress in developing learning principles from neuroscience. This new research offers a very solid framework for developing curriculum by subject matter in a way that respects principles of learning . . . (and) helps confront learning challenges by providing scientifically valid, neurodevelopmental profiles of students' strengths and weaknesses from kindergarten through high school. The neuroscience message is an asset-oriented, student-centered strategy that is research based, upbeat and positive.”²

—Harvey and Housman, *Crisis or Possibility: Conversations About the American High School*

Brian Thomas's concerns about inspiring a vision of powerful education for all students while zeroing in on the "Darrens" and the teachers who are struggling in Marshall Junior High are both the right concerns. The National Association of Secondary School Principals (NASSP) supports this as well and urges its members to take part in large-scale school reform by "breaking ranks" and implementing the report's thirty-one action steps, which are focused on a learner-centric model of education. One of the three key recommendations and subsequent set of actions stressed the "development of personalized learning, where students see their learning as meaningful and relevant, as well as rigorous and challenging."³ NASSP believes that if principals act on the recommendations, they will ultimately see the success of every student, not only those typically served well by current middle and high schools.

This transformational work is one of the hardest and most challenging tasks one can undertake. But reframing conversations about why we need changes in education from a discourse of crisis to a discourse of possibility is energizing. The leaders in these discussions about school transformation see the power of new technologies to make curriculum and instruction accessible to students with differences in how they approach learning. Like the authors of the 2004 report, *Crisis or Possibility: Conversations About the American High School*, they know that the explosion of findings from neuroscience provides an overarching framework to better understand learning and thus help them make better decisions about the right curriculum, instruction, and resources to help the learners in their schools become more engaged and invested in finding academic success.⁴

Despite the efforts of many educators, scientists, and academics, the science of learning does not typically appear as a component of preparation programs and continuing education efforts for teachers and administrators.⁵ The focus of learning for educational professionals is acquisition of content and pedagogy knowledge, with only superficial coverage of knowledge of learning and learners. The science supporting

learning and learners tends to remain within the domains of knowledge in the clinical and medical professions. For educators to acquire and use this new knowledge for today's struggling learners—and to create new instructional scenarios for *all* learners—we have to recognize the quicksand of our educational past and how it unintentionally creates barriers.

Resist the Pull of the Past

“Advances in neuroscience are creating new notions of performance and cognition and reshaping discussions of social justice in learning.”⁶

—KnowledgeWorks Foundation and Institute for the Future
2020 Forecast: Creating the Future of Learning

This past decade has seen an explosion of findings from neuroscience and studies on cognition suggesting how we can all improve our cognitive and mental performance. Baby boomers flock to new technologies and games to enhance active working memory. They read publications like *Scientific Mind*. The U.S. government provides funding for national labs like the Institute for the Brain and Learning at University of Washington. Neuroscientists and cognitive psychologists are the new management gurus, with the *Harvard Business Review* publishing the implications of John Medina's *Brain Rules* on business management⁷ and Gregory Bern's *Iconoclast: A Neuroscientist Reveals How to Think Differently*⁸ hitting the best-seller list of business books.

So why is it that the science of learning has not penetrated the one sector—education—in which the core business is learning?

Daniel Pink, provocative author of the best seller *A Whole New Mind*, posed a key question as he pondered why efforts to really transform schools and education are stymied. Do our current schools bring a comforting wave of nostalgia or a rush of an exciting new future of learning?⁹

Most schools are the rare institutions we enter in which the environment—classrooms, hallways, furniture, and rituals—have largely

remained the same for more than forty years. And this familiarity typically evokes a wave of comfort rather than a sense of concern. If we were to enter a business and see mainframe computers and punch cards, visit a hospital without ultrasounds or magnetic imaging for diagnosis, or work in an office with Selectric typewriters and rotary phones, we'd think we'd stepped back in time.

Elementary classroom practice is sometimes a replica of our own experience of long ago. Children gather for circle time on the rug and do the daily calendar, recite the days of the week, copy the “news of the day” in print or cursive from the chalkboard. We laugh at the teacher in the movie *Ferris Bueller's Day Off* who drones on in a lecture, pausing only for a fill-in-the-verbal-blank answer by asking, “Anyone, anyone?” It's funny because it is familiar.

It may be the power of nostalgia that is associated with the common yet positive shared experience of school that pulls so many of our most dedicated and creative reformers to refashion golden moments of education rather than imagining bold new ways of learning. *We can* in the twenty-first century create another breathtaking democratic achievement for our diverse learners, but it will not be like the successes America achieved in the industrial era.

Nostalgia constrains creative thinking. Listen to local and national conversations about how to fix our schools and system. There is talk about accountability, charters, low-performing schools, data-driven decision making, nationally benchmarked standards and tests, twenty-first century skills, extended school time, pay for performance, teacher quality, community schools, strategic management of human capital, graduation rates. We now have shared acronyms—NCLB, NAEP, AYP, IEP, RTI, EOG, SAT, the list goes on. But we're missing a key word in our shared educational vocabulary, or even an acronym that includes it: LEARNING.

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A hypothesis is that most people who lead the national efforts to improve education were, by and large, successful students in the education system. Therefore, current efforts to improve education for all learners largely follow the strategy of our past reform achievements—using legislation and policy levers to ensure access for all children to the best education. Solutions tend to be focused on expanded access to those inputs believed to have enabled the achievements they have made: high-quality teachers steeped in content knowledge, tough standards and assessments like the New York Regents exam, more schools with this kind of rigor at their core, more time to learn, parental involvement, enrichment opportunities, and so on.

Leaders working on education reform recognize that many factors have created a new global, technology-driven world, but solutions offered to prepare students for this are largely a return to variations of this golden era of education. Reformers want more children to have access to the experiences and resources that enabled their success, yet they haven't considered the possibility that their success might have resulted because their minds were wired to succeed at the specific tasks that counted as academic achievement and overall school success—those relying largely on memory, linguistic, and attention strengths.

Curtis Johnson, one of the authors of *Disrupting Class*, states, “It is a mistake to confuse either the permission to create new schools or setting rigorous standards with learning. What matters is what happens in class, whether physical or virtual.”¹⁰ Many educators, school leaders, and policymakers—working on new standards, new schools, and new systems—talk *around* learning but not *about* learning. Some might argue this is merely a semantic assertion—we know that the reason we have been so focused on education reform for decades is that we want our students to learn in more relevant, rigorous, and engaging ways than ever before.

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It's plausible, yet without a specific focus on learning we have missed solutions from the science of learning research that are essential to bringing about the transformation in education we hope to achieve. We have new insights into the way students are wired to learn and how they vary that can help us address the persistent challenge of so many kids missing the mark in today's schools. We have innovative programs and tools to personalize and customize learning, demonstrating how we might accelerate how we transform the ways we educate all learners for a complex, changing world. Yet when *learning* is not one of our top education vocabulary words, ideas from scientific learning research do not find their way into our discussions.

The new role of schools and education that many thought leaders are urging won't go anywhere if we don't talk about the new kind of learning we need. Tom Friedman, in his best-selling book *The World Is Flat*, contends that the most important function of school is to teach students *how* to learn in order to prepare them for the future; the majority of students are being educated for jobs and roles that don't exist today.¹¹ Chester Finn, former deputy secretary in the U.S. Department of Education, concurs with the need for fresh ideas stemming from real experiences with student learning in our education reform discussions; he challenges readers in a commentary in *Education Week* that "people are good at different things—and plenty of traits matter besides academics."¹²

Shift from a School Leader to a Learning Leader

The term "learning leader" is widely associated with Douglas Reeves¹³ and his framework for school leadership development. The construct compatible with the All Kinds of Minds approach is one articulated by Hargreaves and Fink based on a report about learning issued in 1996 by the United Nations Educational, Scientific and Cultural Organization (UNESCO).¹⁴ They argue that "being a leader of learning means more than poring over and perseverating on achievement results or finding quick ways to boost the figures or narrow the gaps."¹⁵

It requires the consistent work summarized in the following box in building a deep learning foundation in today's school and developing the expertise for leading learning into the future.¹⁶

Learning leaders must

- Be passionate advocates for and defenders of deep and broad learning for all students. . . .
- Put learning before testing while promoting assessment for learning. . . .
- Become more knowledgeable about learning. . . .
- Commit to improving old basics of literacy and math but not to the exclusion of everything else, while emphasizing the new basics of creativity. . . .
- Engage students in discussion and decisions about their own learning. . . .
- Create the emotional conditions for learning . . . by personalizing learning for every student.
- Become omnipresent witnesses to learning by (analyzing and discussing) responses to student work.¹⁷

—Hargreaves and Fink, *Sustainable Leadership*

Many of the organizations that support and represent today's school leaders have acknowledged the necessity of a shift to a learner-centric purpose of education. The National Policy Board for Educational Administration updated its standards in 2008 to reflect the recent lessons learned about education leadership that enable student success.¹⁸ To drive the point home that standards of professional practice in leadership must link to this learner-centric focus, each of the redesigned six core standards begins with "An education leader promotes the success of every student by. . . ."

The National Association of Independent Schools (NAIS) conducted a survey in 2005 among leaders in education, business, and media to predict the key trends that will affect independent education

for the next two decades and the actions schools should take now. The NAIS noted both the challenges and opportunities that arise when science and technology move at warp speed and predicted that, each year, new findings from cognitive psychology and neuroscience will need to be infused into all aspects of education. The recommended action step from NAIS? Provide high-quality, research-based, professional development opportunities for faculty, staff, and parents to learn about “brain-based” teaching and other applications of the science of learning to gain an understanding of how each student learns.¹⁹

“The opportunities to implement major changes in education based on what we know today about how the brain works places educators in the position to venture into ways of learning only imagined a generation ago.”²⁰

—Kenneth Wesson, Educational Consultant in Neuroscience
NAIS Opinion Leaders Survey

Arthur Levine, Clayton Christensen, and colleagues along with KnowledgeWorks Foundation are part of an emerging group of “futurists” all describing this shift, aided by technology, to an individualized and time-variable system of education. In this system, the teacher serves as a diagnostician of how each student learns and what the student needs to learn. The teacher helps select and guide the program each student should follow and assess the student’s progress. Pedagogy is reinvented continuously in such systems as it is geared to particular learning profiles and includes myriad instructional possibilities such as classes, tutorials, mentoring, apprenticeships—both in real and virtual learning spaces called schools.²¹ KnowledgeWorks Foundation, in the *2020 Forecast: Creating the Future of Learning*, imagines many of the new roles adults may play in this exciting world of learning, some of which are described in the following box.

As school leaders become learning leaders using the approach described in this book, they not only build the capacity of their faculty to reach today’s students with learning differences; they also develop

2020 Forecast: Creating the Future of Learning predicts that “learning agents” will shape this future by redefining the roles of the profession. With a solid grounding in the “science of learning” and a student-centric focus, the roles we’ll see include

- **Learning partners:** Students with compatible personalities but different learning profiles are matched to support each other.
- **Personal education advisors:** Local education agencies assign these professionals to help families create, nurture, and maintain learning plans.
- **Learning fitness instructors:** These individuals help learners build and strengthen the basic cognitive, social, and emotional abilities essential to learning.
- **Assessment designers:** Using social networks and insights into cognitive functioning, they create more appropriate methods for evaluating literacy, learning journeys, and other innovative forms of instruction.
- **Learning journey mentors:** Mentors work with the other roles, creating and navigating learning itineraries for groups of students.²²

—KnowledgeWorks Foundation and Institute for the Future
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the experts to fill these new kinds of roles that will emerge when the teaching profession makes the transition to a learning profession.

Create a Series of “Small Wins” for “Big Change”

“Small wins” is a strategy cited in social science research—best described by and credited to psychologist Karl Weick in the 1980s—of redefining the scale of social problems to actionable, significant

tasks.²³ The idea of the small wins strategy involves reframing large-scale, social sector challenges—like the failure of public education to teach all children successfully—into smaller actionable tactics.

Small wins (sometimes referred to in education reform solutions as “rapid prototypes”) are characterized as concrete, significant tasks that produce a visible result while moving one step closer to a new vision or one step away from an unacceptable condition. Using this approach, school leaders—and the faculty—gain some experience to figure out how the knowledge and shift to learning expertise and leadership at the classroom level can begin to reshape some of the larger school and district practices. Small wins build confidence and provide proof of concept.

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One example of using the small wins strategy is to apply the knowledge and approach in this book with the most complex and challenging learners in a school—those individuals targeted for gains in student achievement. Former astronaut George “Pinky” Nelson now works with schools to improve science education for students targeted as “at risk.” He relays a story from his work with an elementary school in the state of Washington that illustrates how the small wins approach could be used with the All Kinds of Minds approach by starting with a faculty-identified cohort of students.

At the start of the school year, the principal asked her faculty members if they thought they had any students that might fail. Each

teacher named two or three. After taking all the names, collecting their school photos and compiling their smiling faces into a composite picture of a cohort, the principal reconvened the staff, presented the class portrait, and asked, “Now that we’ve identified these students as a high risk for failure, what should we do about it?”

From then on, that group of students—and their progress—became the focus of the entire faculty and biweekly meetings. Much like the grand rounds in medical practice, teachers brought examples to meetings of how they were teaching and assessing science instruction in innovative ways. When they were stumped, they presented their student “case” for others to question, offer advice, share strategies and suggestions. The progress of each student was noted every other week on cards attached to their photos; as students met and maintained grade-level performance, their photo and cards were removed from the cohort portrait and the focus continued on those who remained and struggled. During the year, as part of this process, teachers gradually enhanced their role as learning diagnosticians and experts.

The principal then reported the most astonishing finding at the end of the year. Not only did 90 percent of the students they targeted achieve grade-level performance on end-of-year tests, but the focus on improving instruction for the most challenging students benefited all students, with the majority of the students achieving among the highest scores in the state.²⁴

All Kinds of Minds wants educators to use the science of learning and the accompanying processes in the approach to advance success and achievement for a greater number of students. We need learning leaders who will help bring this knowledge and these tools to teaching faculty to build the capacity and confidence to reach those students about whom they so worry. And more important, America needs these learning leaders to spark a new, energized national conversation about the future of learning by sharing what can be done with the most challenging students to illuminate what is possible for all.

Key Ideas

- Bringing about the shift to learner-centric system of education requires that school leaders adopt the practices of learning leaders, establishing both a focus and new research on learning to teachers and students at the school level.
 - Leading with a bifocal lens ensures that the needs of today's struggling learners are being met and that progress toward a learner-centric model of education is being made.
 - Research about the mind, brain, neuroscience, and learning is expanding, but to date, this body of knowledge hasn't penetrated the education industry or schools.
 - Education hasn't embraced the science of learning or the ideas of "futurists" because of the pull of strong traditions and related nostalgia of a golden era of our education system.
 - Transformation can occur if there is a shift toward making personalized learning our vision of the future and helping teachers build the capacity to adopt a greater role as diagnosticians and learning specialists.