

# Reengineering Schools For the 21st Century

There is already general agreement among various sectors of our society regarding the skills that today's students will need as they move on to higher education and careers. Mr. Bassett uses these expectations as a starting point to design a new kind of school — one that will prepare students to succeed in the 21st century, not the 19th.

**BY PATRICK F. BASSETT**

**M**ORE THAN 20 years after the publication of *A Nation at Risk* and half a decade into the new millennium, we seem to be in jeopardy again. Employers and university professors demand certain skills and modes of thinking appropriate for the challenges we face in the 21st century. But policy makers and school bureaucrats are increasingly reverting to an antiquated model of education. If we do not change course now, we will fail an entire generation of children and imperil the nation's future. Thankfully, visionary school leaders are beginning to confront this disconnect between 21st-century expectations and seemingly permanent 19th-century school values and practices.

There is a growing consensus among members of the corporate community, university professors, and informed educators regarding the skills needed for success in college and in the

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marketplace. According to the Business-Higher Education Forum, “today’s high-performance job market requires graduates to be proficient in such cross-functional skills and attributes as leadership, teamwork, problem solving, and communication,” as well as time management, self-management, adaptability, analytical thinking, and global consciousness.<sup>1</sup>

A study by 20 of America’s most prestigious research universities identified these same proficiencies and skills as the ones students need not only to gain admission to college but to succeed there.<sup>2</sup> While the study proposes standards for the various academic disciplines, its introduction indicates the “proficiencies” these standards are meant to develop. Likewise, at the precollege level, educators have articulated locally and nationally a core body of knowledge — what we know students should know.

Regardless of the angle of vision, there are remarkable similarities in what experts see. In short, we do not lack clarity about *what* to teach; rather, we are mired in antiquated thinking about *how* to teach. More specifically, we need to understand what exercises and experiences best produce proficiency in the skills and attributes that all sides agree are critical. Moreover, legislative mandates (e.g., high-stakes testing) and a slavish allegiance to traditional teaching practices and to specific disciplines of study are diversions that prevent us from devoting serious attention to developing a more global mindset and helping our children acquire the knowledge and skill sets they will need to succeed.

## A NEW FRAMEWORK FOR SCHOOLS IN THE 21ST CENTURY

All over the world, we see examples of schools that are determined to resolve the contradiction between the vision of high-quality education for the 21st century and the reality of current practices. Schools that have dared to experiment are experiencing profound success in redefining what to teach and how to teach. That commitment itself is a 21st-century attitude.

How can you recognize a great 21st-century school? Schools for the 21st century will expect proficiency, fluency, multicultural literacy, and high-quality performance by students in a variety of areas. These four hallmarks of a successful school will influence how the school organizes itself, its instructional program, and its assessment system. Students will be promoted according to how well they meet expectations in these areas. Samples of each student’s achievements in these four areas will be captured in his or her digital portfolio and will mark progress points at successive

stages of learning in a way that does not mean instituting standards of mediocrity that all students are forced to adhere to.

*Hallmark 1: proficiency.* The first hallmark of a successful school for the 21st century will be the proficiency curriculum. In the words of assessment expert Grant Wiggins, a proficiency curriculum will be “backward designed” so that preferred outcomes dictate program and assessment. A student who is well educated for the 21st century will be technically proficient in

- literacy (including reading with comprehension, writing with accuracy and cogency, and speaking in public with confidence and persuasiveness);
- numeracy (mathematics skills and reasoning at advanced levels);
- empiricism (the scientific method, as applied in scientific inquiry); and
- technology (including such tools as computers, digital imaging, laser operations, and robotics).

While these proficiencies will continue to be taught as subjects in classes, it is increasingly likely that “high-tech” means of instruction will be employed so that the assessments themselves offer instant feedback loops that allow students to progress according to their developmental readiness. Promotion to the next level of proficiency will depend on demonstrations (tests, performances, electronic portfolios) of increasingly sophisticated abilities. Students may “graduate” from school at a stage (rather than an age) when they have the level of proficiency required for the workplace, the military, or the university.

*Hallmark 2: fluency.* The second hallmark of a successful school in the 21st century will be the value placed on a number of “fluencies” that stretch students beyond the technical proficiencies. Fluency in leadership, in ethical decision making, in communications, and in teaming is developed less by instruction from the teacher and more by habituation on the part of the student through practice and the coaching of a mentor.

Students who are well educated for the 21st century will be fluent in leadership because they will have had leadership experiences both within the classroom (e.g., taking leadership for one task in a team project) and outside the classroom (e.g., on the athletic field or on stage or in editorial offices).

Aristotle taught us that ethical behavior is learned by acting ethically; it is a habit that becomes ingrained when people are young. Students who are well educated for the 21st century will be fluent in ethical decision making because they will have practiced using principles to resolve real ethical dilemmas.

Students who are well educated for the 21st century will be fluent in writing persuasively and speaking confidently because they will have done so in the various presentations — e.g., puppet shows on nutrition for children at a homeless shelter or PowerPoint presentations to the city council on water quality — required in a project-based learning environment. Indeed, as students and their teacher mentors develop the various experiential projects and products they will pursue, the development of each of these fluencies will be built into the curriculum.

*Hallmark 3: multicultural literacy.* Students who are well educated for the 21st century will be, in the words of E. D. Hirsch, “culturally literate.” By this, I mean they will be conversant with their own history, literary canon, language, geography, and ecology, as well as being familiar with other cultures or geographic regions.

As controversial as the notion of a canon may be, the longevity of the concept suggests just how important it is in the process of identifying one’s own “cultural fingerprint.” Thus there is a reason why we study the American Revolution, the Civil War, the Great Depression, the civil rights movement, and other watershed events in the American experience. There is also a reason why we continue to read *The Scarlet Letter*, *Huckleberry Finn*, and *Walden* and why we listen to the cadences of Langston Hughes, Emily Dickinson, and Robert Frost. These works embody key stories and themes that serve to define us. At the same time, the 13-year span of schooling affords plenty of room for the canon to become more inclusive, embracing such voices as those of Amy Tan, Maya Angelou, and Chinua Achebe, among others.

It is equally critical that students who are well educated for the 21st century be fluent in globalism. What does that mean? It means that we accept multiple perspectives on world events and on the fragile interrelationship between the global economy and sustainable environments. Twenty-first-century students will be fluent in several other cultures as well, their learning steeped in a non-English-speaking country’s geography, religious beliefs, language, art, and political viewpoints. We know that immersion in another language (begun in preschool) is a gateway experience, not only for the acquisition of language skills but also for the development of interest in other cultures. Experience with peers in another culture (through exchanges — virtual and real) produces the empathy that is requisite for deeper appreciation and understanding.

*Hallmark 4: high-quality performance.* A fourth hallmark of a successful 21st-century school will be its commitment to high-quality performance by students in both the practical and the fine arts. Students can learn “teaming” by par-

ticipating in, for example, athletics, debate, theater, the school yearbook, or online school publications. All of these endeavors have their own high standards against which to measure performance. It is evident to all when a student jazz band is mediocre and when it is exceptional; likewise, the quality of performance is readily evident in literary magazines, cross-country teams, sculptures, annual declamations, or extemporaneous speeches. These exhibits, performances, and competitions can be captured on video and added to each student’s electronic portfolio.

## REENGINEERING SCHOOLS

As schools evolve, our goals will need to be redefined in terms of the four hallmark expectations, and schools will need to be redesigned to reflect how we achieve them — time will become the flexible variable and learning will be the fixed variable. In a reengineered program, the academic disciplines of middle and secondary schools will succumb at last to a much more thematically based and project-oriented program, much like that of the best elementary schools. While the technical proficiencies may be taught in more skill-oriented formats, assisted by technologies available to customize and give feedback to students as they progress, the fluencies will be taught as teacher leaders define with students units and themes related to real-world challenges. Thus it is possible that the day, week, month, or year will be divided much differently than it is now.

How can those who work in schools take up the challenge to reform the system and educate students appropriately for success in the 21st century? First, we must remember to focus on what students need. Administrators must be willing to encourage new ideas, model flexibility, and take calculated risks. Teachers should design curricula that not only transmit information but develop skill sets and encourage critical thinking among students. Teachers should also be willing to modify their pedagogical techniques if something isn’t working.

To reengineer individual schools, we will first need to experiment. The ideal model for a given student body is not obvious and won’t be created overnight. It must evolve and adapt. One option is to create an experimental school-within-a-school and involve students, parents, and faculty members who are eager to try something different. Collaboration early in the development process will dramatically increase the chances of making meaningful change. A second option might be to dedicate one day each week to a more experimental/experiential curriculum (project-based learning, for example).

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It is imperative that our education system evolve at a rate comparable to that of our society. Forcing our children to endure an outdated education system and then dumping them, ill prepared, into the larger world at age 18 is both a disservice to them and a threat to our national well-being. After all, these young people are the future leaders of our nation and our world. We must act now to remedy this problem. As anthropologist Margaret Mead once said, "Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has."

1. *Building a Nation of Learners: The Need for Changes in Teaching and Learning to Meet Global Challenges* (Washington, D.C.:Business-Higher Education Forum, June 2003), p. 9.

2. *Understanding University Success* (Eugene, Ore.: Center for Educational Policy Research, 2003). 

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