



Building a 21st Century U.S. Education System

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Looking Back, Thinking Ahead

James Kelly

Introduction

When a great architect and leader of education reform in America for the past quarter century, Bob Wehling, invites colleagues to think ahead about what should be done to improve education in our schools during the next quarter century, it's both an obligation and a privilege to attempt to think ahead. If, indeed, a man's reach should exceed his grasp, so should a nation's education system; a failure of leaders to think ahead beyond today's constraints places the system at risk of being bypassed by new economic realities and new technologies that promise increased productivity.

In the 20th century, the system successfully adapted to major demographic and societal trends, but huge shifts in society and the U.S. economy will require equally significant changes in its organizational structure and labor markets. Business is changing. Our society is changing. The world is changing.

Today's students must be prepared for these changing conditions. The schools of the 21st century must adapt to these new challenges not only for improved education for students, but also because markets are rapidly providing new types of learning opportunities for students outside the formal school structure.

Have Schools Changed?

Some say that the schools never change – never have, never will. They're wrong. In fact, there were significant changes throughout the 20th century. The advent of civil-service employment during the first quarter of the 20th century led directly to the growth of professional cadres of administrators organized into hierarchical bureaucracies at both local and state levels. The number of local districts was reduced during the 1920's and 1930's from over 130,000 to the present number of about 15,000. Enrollment in elementary schools, and then secondary schools, became universal, and, when combined with robust decades of immigration, led to enormous expansion in the size of the "common school" enterprise. Preparation for teaching jobs changed from two years of college typically observed early in the 20th century, to four years and even five after the 1950's. States relied heavily on local administration of state-regulated curricula and also relied on local property taxes to provide most of the financial support for schools. One unfortunate impact of this decentralization is the inequitable distribution of taxable property per student, a problem reduced in severity in recent years due to court decisions requiring many states to provide a fairer system.

After World War II, enrollments continued to increase, and schools struggled to provide the needed buildings and staffs. During the 1960's, schools faced demands to strengthen instruction in science and math to support national efforts to match Soviet technical and military threats. Beginning in the mid-1960's, the desegregation of schools, and the provision of improved educational opportunity for disadvantaged children, became dominant

themes. Federal influence grew with passage of the Elementary and Secondary Education Act (ESEA) in 1965, and adoption in the 1970's of a second historically important initiative requiring education of handicapped children.

Beginning in the late 1980's and continuing into the first years of the new century, the principal focus of education policy and reform was to improve the educational attainment of all students, especially low-performing students. This became known as the "accountability movement," and was led by state governors, corporate leaders, and educational reformers. Soon standards led to testing, and more testing, and still more testing – all in the name of accountability, or rather, information about average student achievement on standardized tests in two or three content fields. The federal No Child Left Behind Act (NCLB) resulted in federal mandates and directives regarding details of instructional materials and methods of teaching reading, testing strategies for multiple sub-populations, and organizational incentives and penalties that prior to the late 1990's would have been deemed unthinkable federal intervention, and are the focus of intense political controversy even today.

Even this inadequate and all-too-brief survey reveals wave after wave of demographic and policy forces that led to significant changes in the public education system. Indeed, public education did change, perhaps slowly, but it did change. It is changing today, under pressures from NCLB and major initiatives in individual states and some local districts.

Without overstating the case, it is fair to say that critics of public education miss the biggest point of all – one cannot separate the triumphant ascendancy of our great and stable democracy and powerful economy from the public education system that has been attended for generations by 90 percent of all students.

What hasn't changed in schools? Even as public education systems adapted to these demands for change, their structure and bureaucracy remains a "given." Today, the schooling "industry" suffers from a serious case of hardening of the arteries. Schools are essentially command-and-control organizations run by administrators who once were teachers but were "promoted" into administration. Teacher salaries within local districts vary only with years of teaching experience (growing older), and additional college courses taken (without regard to whether the courses have any relationship at all to teaching assignment or professional responsibility). Indeed, patterns of employment, compensation and incentives in schools rarely have to do with new missions, new contexts, or improved institutional performance.

One reason for this stability is that most parents remain satisfied with their local schools. Facing no revolt among their core constituents, school leaders have been all too willing to encourage the belief that public schools, as currently structured and managed, are the only institutional method of performing the public education mission. Demands for change in local school managements and bureaucracies are sometimes resisted as if any change in school structure or policy would represent a weakening of the entire public education system – when just the opposite is probably true.

Recent educational reforms have been focused on an improbable idea – that paying attention to internal classroom instruction is not only necessary but is a sufficient strategy to achieve major improvements in student performance.

Large segments of the educational reform community have been focused for 20 years on this policy idea — impose standards from above, impose new tests a few times a year, publish the results — and forget about such critically important issues as out-of-school influences on kids, organizational constraints, workforce capacity, and the absence of performance incentives. Recently, educational policy leaders have begun to focus on problems of capacity, such as lack of alignment between and among standards, tests, teacher preparation, and the “taught” curriculum — that is, what is actually taught by teachers once the classroom door is closed.

Another encouraging trend is found in initiatives to create smaller schools. In large secondary schools, it is almost impossible for teachers and other school personnel to know and work effectively with individual students and parents. Creation of smaller secondary schools in cities is promising. A few thousand public charter schools have been created, most authorized by appropriate public authorities. One idea worth encouraging is for cultural institutions to create public charter schools and to use their intellectual resources to strengthen curriculum and teaching. Through the development of these new, alternative schools, choice is enhanced for parents and students, but charter schools sometimes draw funding away from the remaining public schools. All too often, though, many new schools, especially charter schools, represent more a change in governance than new thinking about internal school organization and teaching-learning strategies.

It is important to observe that the external politics of schools are quite different from the internal. Most changes in schools in the recent decades have been driven by the external politics of schools. The Congress passes new laws, presidents make speeches, court rulings push the schools to offer new programs and to achieve new equities, governors and mayors demand more accountability, and states adopt ever more detailed regulations. But since World War II, the internal political economy of schools has seen only one significant change — the advent of collective bargaining with unionized workforces. In important respects, the status-quo internal politics has functioned to resist reforms sought through external politics.

Ends and Means of School Reform

One looks at this situation and notices an absence of policy attention to what used to be called the purposes of education. Traditional statements of these purposes required schools to attend to the personal, social, emotional, physical and academic development of students — all of the above. Today, schools face policy influences that are leading to a narrowing of the curriculum and, therefore, a narrowing of the purposes of education. These consequences are important to discuss and to study as policy issues whether or not they are intended effects of policy. A more robust public dialogue about the ends and means of education reform is needed.

There are many examples that could be cited of the narrowing of the schools’ purposes. One example is the decline of music, art, and health education in many schools. To the extent that children are learning about these subjects, much of the learning occurs outside of school through services purchased on the open market by middle class parents.

Here is how one leading corporate CEO, Michael Eskew of UPS, described in 2005 the traits that UPS wants and needs in its future employees. Mr. Eskew says that UPS needs people who are:¹

- Trade literate – people who understand the basics of 21st century trade and economics.
- Sensitive to foreign cultures – people who are adaptable and are knowledgeable about and sensitive to other cultures.
- Skilled in foreign languages – people who can read and write languages such as Mandarin.
- Technologically savvy – people comfortable with using and developing modern technologies.
- Skilled at managing complexity – people who can learn how to learn, a trait acquired through a liberal arts education.
- Ethical – people with a firm foundation of ethics developed in schools and through families and communities.

Even a casual glance at this list makes clear that students preparing for successful lives in the 21st century need to learn a lot more than just cognitive skills in a couple subject matter fields. It would be an enlightening “audit” to examine actual instructional programs in schools in the context of the traits described by Michael Eskew as essential purposes of education.

Another challenge to the “cognitive-skills-are-what-it’s-all-about” camp comes from *New York Times*’ Op-Ed columnist David Brooks. His November 13, 2005 column in the *Times* should be required reading. Brooks wrote that “...skills and knowledge – the stuff you can measure with tests – is only the most superficial component of human capital. U.S. education reforms have generally failed because they try to improve the skills of students without addressing the underlying components of human capital. These underlying components are hard to measure and uncomfortable to talk about, but they are at the foundation of everything that follows.” He describes these components as cultural capital, social capital, moral capital, cognitive capital, and aspirational capital. He goes on to say:

“These programs (writing about No Child Left Behind) are not designed for the way people really are. The only things that work are local, human-to-human immersions that transform the students down to their very beings. Extraordinary schools, which create intense cultures of achievement, work. Extraordinary teachers, who inspire students to transform their lives, work. The programs that work touch all the components of human capital.”

Looking Ahead – New Directions

As our society and economy change, schools will face continuous demands for improved performance. It’s doubtful if schools, as they are currently organized and managed, are up to the task. Good people will work hard and achieve marginal improvements, to be sure, but not the kinds of gains in productivity (needed outputs compared to inputs) that American manufacturing experienced in the first three fourths of the 20th century and that

have been observed the past 20 years in non-governmental service sectors in our economy. To have any realistic hope that schools can take a “great leap forward” in productivity, major reforms are needed in how our educational system is organized, how learning opportunities are offered, and how modern tools of technology are harnessed to modernize traditional school organizations.

Stop for a moment and think about how little attention is being given today even to common sense reforms that are largely being ignored by our unthinking acceptance of the fragmented and uncoordinated ways that our educational system has been structured. To break down this tunnel vision and short-sightedness, we need courageous and bold proposals of where we need our educational system to be 25 years from now. We need public and professional debate about the big picture, not just the tactical measurement obsessions of today.

To provoke such debate, I offer below a short list of ten such needed “systemic” reforms. Some may scoff and say it can’t be done, but none of these is more bold or challenging than many reforms adopted successfully by schools in the 20th century.

1. Break down institutional, policy and attitudinal barriers that divide “preschool” from “school.” Create new child development programs beginning at age three with purposeful cognitive content, with seamless continuity from age three through age eight. This is a large institutional cooperation and collaboration issue and should not require large new resources. A major national foundation could map this initiative for the nation.
2. Similarly, break down institutional, policy and attitudinal barriers that divide “high school” from “postsecondary,” creating college level for-credit courses starting in 10th grade, allowing students to learn and grow at their own pace, with seamless transitions bridging grades 10 through 16. Recent proposals focused on “K-16” reforms are well-designed but may be too timid considering the deeply embedded institutional fragmentation that must be overcome. This is essentially an issue of institutional collaboration, but the issue needs to be “taken up a notch,” to paraphrase a famous TV chef. Foundations again could fund projects to “map” this kind of reform.
3. Create and support teams to design entire educational programs organized around the fundamental idea that all children are different and grow and develop at their own individual pace. Modern technologies can be huge enablers of individualization, but our thinking lags behind these capabilities. This initiative will require bold thinkers and is the sort of issue that a coalition of national foundations should undertake.
4. Engage cultural, scientific and civic organizations to establish and run model schools reflecting their expertise and resources. These schools should be publicly regulated as to desired outcomes and legal rights of children.
5. Abolish every law and regulation (except court decisions regarding racial segregation) requiring pupils to attend specific schools in a state, and open all public schools in a state to open enrollment, with random selection if applicants outnumber available seats.

6. Reduce deeply ingrained professional and regulatory barriers keeping parents out of schools. Provide financial incentives to reward schools that welcome parents to become engaged as partners with teachers, promoting academic growth of students, especially between ages three and 12.
7. Invest in new models of how to organize the time of students and teachers, providing learning opportunities that utilize 250 or even 300 days per year. New “curricula” are needed for what students should study and learn in summers and during other extended vacation periods. The National Science Foundation can lead this initiative using its traditional grant making functions, developing both “high-tech” and “low-tech” programs that states and local districts could adopt and adapt.
8. Invest modest public funds to create initial markets to stimulate substantial private-sector investments to create online curricula in all subject areas for students age three through 22, and for lifelong learning. Infiltrate with educational content the video games and iPods that consume so much of the lives of today’s students. Use “RFP’s” to attract “bidders” to earn “good housekeeping seals” for learning initiatives.
9. Develop radically improved human capital management systems for teachers, principals and other key educators, so that the now-separately conceptualized and administered elements - pre-service training, recruitment, employment, induction, deployment, professional development, evaluation and compensation - are strategically aligned to support the attainment of the teaching and learning goals of the system. The strategic management of human capital in schools means structuring the entire organization and its instructional systems, cost structures, and operations to provide the people and related knowledge, skills and capacities required to create and run successful schools.
10. Create a modern educational research-and-development system instead of the fragmented R&D activities in education today, so that national resources scaled to the task are allocated to solve educational problems and bring learning into the 21st century. American ingenuity and determination run deeply through R&D in other sectors such as agriculture and health, but sadly not in education. America needs an educational version of The National Institutes of Health (NIH); proposals to create such an enterprise have been advanced by the National Academies of Sciences but fell prey immediately to lack of political leadership at the Federal level. America spends more than \$500 billion each year on its schools; an annual commitment of even one-half of one percent of that would be a good start. After all, education R&D is the historic core federal role in education. This initiative should be housed in a relatively autonomous federal agency similar to NIH and not within the U.S. Department of Education.

To create and launch many of these initiatives, the first step in advancing any of them is to get a core group of leaders to decide that they are important and that they will commit themselves to making something happen. Frequently this will require that an entirely new organization, or coalition, be established, to do the groundwork, chart the course, develop realistic plans regarding substance and financial support, and obtain outstanding staff leadership. Non-governmental financial support from corporations and foundations is usually essential at these early stages.

Assembling the network, or coalition, is critically important. All too many education reforms founder because they are launched by groups in one or another of the many “silos” in the education policy landscape. Getting groups across the “silos” to communicate and cooperate is not easy. Many say it can’t be done. While it isn’t done often, it can be done, and is absolutely essential to creating the possibility that a significant new initiative can have the time, space, and support needed to grow to self-sustaining scale.

One example of how this process can work is the National Board for Professional Teaching Standards (NBPTS), of which Governor Jim Hunt of North Carolina was founding chair and I was founding president. When the NBPTS was founded in 1987, leaders from many disparate groups and “silos” were brought together: teacher unions, academic organizations, governors, corporate CEO’s, university presidents, educational researchers, school principals, local and state school board members – and last but definitely not least – teachers. In fact, a majority of the 63 members of the NBPTS board of directors were regular classroom teachers. Their “wisdom of practice,” as Stanford’s Lee Shulman called it, was the critical source of guidance needed to enable NBPTS to manage successfully the invention and establishment of National Board Certification, including its substance, administrative systems, financial support, and politics. When NBPTS was founded, the skeptics and cynics said it couldn’t be done. They were wrong then. Initiatives like NBPTS can work again and again with the right combination of ideas, leadership, collaboration, and support.

Organizations and Technology

An absolutely essential need is to adopt and infuse technology into the entire enterprise - not only into the existing instructional program but also into the very heart of the organization itself – how local schools and districts are organized, and how schools relate to parents and taxpayers. In short, we need a hard look at how schools can use technology to revitalize the most basic processes of schools as organizations – how they organize to deliver goods and services. Defenders of public education need to recognize that major technological innovations for “high-touch, low-tech” school must be encouraged and supported. One example among many exciting new developments already available to schools is new wireless handheld devices that permit real-time but unobtrusive assessment of student progress by primary-grade teachers, with results instantly available to the teacher and the student. Assessment and analysis of actual day-to-day student performance offers an alternative approach to late-20th century reliance on centrally designed, once-a-year, “accountability” testing, the results of which sometimes takes months to filter back to the teacher, student and parent and thus have little or no influence on the teaching-learning interaction in the classroom.

New sources and forms of “supply” – teaching/learning opportunities – are beginning to be offered in the marketplace, frequently over the Internet, and more directly accessible to “demand” – parents and students and teachers. This is already happening in a major way through parental purchase of supplementary learning opportunities – computer games, summer camps, violin lessons, community-led athletics, travel, and countless other ways.

Let's think for a moment about these two issues – organizational change, and technology, and how they operate outside the schools. In the U.S. economy, there has been a brutal re-examination, firm by firm, of everything firms do and how they are organized to do them. The market forces this: profits decline; customers shift to new preferences; and competitors offer new technologies with both improved services and lower costs. Similar market or political forces have swept across sectors such as higher education, health care, transportation, telecommunications, and bio-medical research, causing major changes in the structure and internal operating functions of institutions. This simply has not happened with the schools – despite similarly significant changes in the social and policy environment in which schools operate.

Significant productivity increases are difficult, perhaps impossible, to achieve in today's schools. Yes, new revenues are provided regularly through state-local finance systems, reflecting the influence of pro-education governors and pro-funding education lobbies. But the new revenues tend to be allocated first to salaries and, importantly, employee health and retirement benefits. Expenditures thus increase, but program improvements are not achieved. This inability of the schools as organizations to allocate increases in revenue to improvements in effectiveness and efficiency undermines their prospects for long-term sustainability, especially given constant innovations in technology for learning outside schools.

Modern organizations survive by learning to adapt, not just do business as usual. They harness technology to create power, not just control it. They utilize technology to broaden, not restrict, leadership, and to promote a shared, not imposed, vision. They encourage individuality, rather than emphasizing conformity. They use technology to distribute authority, not to restrict and consolidate it. They promote collaboration among colleagues, not isolated individual performance. Modern organizations recognize that productivity doesn't come from top-down directives but from the collective performance of the people doing the work. They trust professional employees – not treat them like early 20th century factory workers. And last but not least, they listen carefully to customers and clients.

By these criteria, schools today are not organized to thrive indefinitely in their current form. They exhibit few of the characteristics desired in modern and adapting organizations. They are organized to control professional workers, not trust them to make good decisions. They are not adopting technology at an acceptable rate. Their students know more about technology than many of their employees. While schools may not be in imminent danger of collapse in the next few years, their mission is being eroded, and their potential to influence young people is being diminished. In the long run, perhaps measured as one or two decades, they will have difficulty sustaining their current position in the marketplaces they occupy.

Leadership For New Initiatives

To accelerate adaptability and reforms in our schools, bold and farsighted leadership is needed from the corporate community, from national foundations capable of shaping national agendas, from educational leaders, and from governors and the White House. New reform coalitions have to be developed through networks of individuals and institutions that are neither far left nor far right, neither dug-in defenders of the status quo nor

advocates seeking the complete privatization of public education. A dispassionate but more imaginative public policy discourse is needed about how markets can contribute to improved student learning while at the same time offering acceptable solutions on both social equity and choice criteria. Yes, I say both equity and choice, for these are two inseparable values, each deeply cherished by Americans for centuries.

Fresh thinking is needed. Boldness is needed. New goals are needed. New coalitions are needed. Risk-takers are needed. Private foundations, a critically important source of innovations, must think more creatively about how their grants could stimulate bolder educational reforms. More of the same will yield more of the same. Reforms that have a chance to prevail are likely to emerge not from the far left or the far right, but rather from what I would call the moderate-center of American politics, and the politics of education. We must hope that these reforms open new pathways for enhanced choice for students and teachers, yield advances in productivity and learning achieved through organizational innovation and new uses of technology, and thus provide an improved quality of education for the private benefit of students and the public benefit of society.

Endnote

1. Address by Michael L. Eskew, Chairman and CEO, UPS, at States Institute on International Education in the Schools, Washington D. C., December 7, 2005.

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