Empowering Our Best Teachers: Essential for Producing More Effective Systems of Education in the United States

Bruce Alberts¹

My Long Involvement with K-12 Education Issues

The title of this essay presents a major conclusion that I have reached after three decades of working closely with U.S. public school districts. My interest in improving school system management began in the early 1980s, when my wife, Betty Alberts, became the president of the San Francisco Parent Teacher Association (PTA). Her new position required that I listen to the meetings of San Francisco's elected school board, where she would often speak. The discussions there shocked me because very little attention was paid to fundamental education issues. Nor was there any obvious way for the district's best teachers and principals to provide the board with the kind of information that it clearly needed to govern wisely.

Since then, I have been involved in efforts to improve the science education experiences for students in grades K–12, including serving as the principal investigator during the early 1990s for a major National Science Foundation (NSF) grant for elementary school science in San Francisco, called City Science. More recently, a close involvement with the National Academies' Teacher Advisory Council and the California Teacher Advisory Council has provided me with many meaningful interactions with

¹ Bruce Alberts is the Chancellor's Leadership Chair in Biochemistry and Biophysics for Science and Education at the University of California, San Francisco. He was elected to the National Academy of Education in 2003.

some of our nation's most outstanding science and mathematics teachers.² In addition, since 2005, I have served as the board chair for the Strategic Education Research Partnership (SERP), a nongovernmental organization (NGO) that works closely with a set of school districts that serve as field sites for its research and development efforts (National Research Council, 2003; see also http://www.serpinstitute.org).

The Dysfunctional, Top-Down Management of U.S. School Systems

Long ago, U.S. business learned the benefits of constantly soliciting advice from workers on the shop floor by studying the startling success of the Japanese automobile industry. However, the vast majority of U.S. school districts, failing to adjust to this fact, remained top-down, hierarchical operations. To make matters worse, the federal government's No Child Left Behind Act of 2001 introduced a heavy-handed emphasis on test-based accountability, with sanctions for failing schools. These top-down demands on U.S. K–12 education systems have exacerbated the "command and control" tendencies in school districts. The terrible consequences are articulately expressed by an East Coast leader in science education and outreach:

We are currently working in several of the schools, and here's my assessment of what I have seen. Compliance has replaced a focus on learning. What you hear from the very well-intentioned people who work in the neighborhood schools is a version of: "you can't believe all the things we have to do." They see themselves less as individuals who are trying to help kids learn, and more as victims of a system that is ordering them about and oppressing them. Strong words, I know, but I find it stunning that we have turned too many of our schools (particularly poor, urban ones) into such spectacular messes. From the principals to the teachers, no one feels entitled to exercise their authority to think how they can use what they are being asked to do to effect meaningful change.³

What this means for our teachers is reflected in a Finnish high school teacher's summary after his recent visit to U.S. schools:

Well, a surprise for me was in States that I have heard many, many stories about how bad the teachers are in the U.S.... But those four months I was there and I traveling through many, many classrooms in that time, and I didn't see any bad teachers. But I saw teachers that work way more than I do....Teachers in the U.S. have to work too much, I wouldn't say

 $^{^2}$ See http://sites.nationalacademies.org/dbasse/tac/index.htm and http://ccst.us/ccstinfo/caltac.php.

³ Personal communication, April 27, 2015, Margaret Honey, President and CEO, New York Hall of Science.

ALBERTS 145

nonsense, but too much on what doesn't help teaching or doesn't help learning—Lots of reports, lots of meetings with no goal, and maybe meetings just for meetings, and also reports on students. You know, "they have done this and they have done this." They work hard, but not with the students. They work hard with the system. And that was the biggest difference in our educational systems. (English, 2014, Chapter 18)

My daughter Beth Alberts, a high school science teacher, reports that nearly everyone in her school district "works hard with the system"—not only the teachers, but also the principals and the central office staff. There are too many regulations and forms to fill out. Everyone blames someone else for the "messes"—the principals blame the district, the district blames the state, and the state blames the federal government.

From the Top Down: Sins of Commission and Sins of Omission

The bureaucratic burdens in U.S. school districts can be classified into two categories: sins of *commission* and sins of *omission*.

The sins of commission consist of demands placed on schools and teachers that interfere with student learning, either through destructive requirements (e.g., a month of test preparation each spring) or through destructive rules that prevent teachers from teaching well, as noted in the example below.

As a cell biologist, I claim that a living cell is the most amazing thing that we know about in the universe: a tiny sophisticated chemical system that can replicate itself indefinitely. All students should experience the wonder of the living cell in science class. For decades, a standard experiment for 12-year-olds has had them rub the inside of their cheeks with a Q-tip; they then transfer the material picked up by the cotton onto a glass slide, allowing them to examine some of their own cells in a microscope. In California, this harmless experiment cannot be done without obtaining signed parental permission for each student involved. To further discourage this bit of active science, each student's slide must be discarded in a toxic waste container, which the school district is required to dispose of specially. No one seems able to explain the rationale for either of these two requirements. However, these restrictions, and many others like them, help to explain why middle school students generally find cells boring. To protect them from their own cheek cells, they instead memorize what a cell looks like from drawings in their textbook. This is an example of what I call a sin of commission.

My example of a sin of omission likewise comes from science education, where materials and supplies are required for the inquiry-based, active science learning that has long been called for in our nation's schools (American Association for the Advancement of Science, 1986; National

Research Council, 1996, 2012). In 2007, the San Francisco Unified School District (SFUSD) purchased the Full Option Science System (FOSS) units for all of its elementary school teachers. However, it neither provided adequate professional development for the elementary teachers in its approximately 70 elementary schools, nor restocked the consumable supplies in the FOSS kits after they were used. As a result, much of the investment made in these high-quality science units was wasted. I attribute this failure to the fact that the top district leaders were unaware of the problems, being far too insulated from what actually happens in the schools.

A Systemic Undervaluing of Teachers and Their Expertise

Ronald Thorpe, in his important article "Sustaining the Teaching Profession," wrote the following after meeting with a group of our nation's best teachers, who had recently completed a year in Washington, DC, as Einstein Distinguished Educator Fellows.⁴

They were not looking forward to returning to their schools and class-rooms. Why? Because they had just experienced—perhaps for the first time in their professional lives—what it is like to be treated as a real adult with real knowledge, skills, and opinions.... They would never receive such respect back in their schools, where they might even encounter resentment from colleagues and administrators. What a loss! (Thorpe, 2014, p. 15)

The bottom line is that if our schools cannot reabsorb the handful of Einstein Fellows and give them more responsibility for improving teaching and learning, there is no hope for our profession and our schools.... Everyone involved with schools and districts must find ways to use the talent they have among their teachers to the greatest advantage. Holding them in lock-step positions forces the best people out of the profession and undoubtedly convinces many people not even to explore the possibility of becoming a teacher. (Thorpe, 2014, p. 15)

How can we change the culture of schooling so that it becomes routine and expected that outstanding teachers will provide effective, regular input to help steer their school district's (and their state's) policies and practices? School districts cannot succeed as strictly hierarchical organizations with a "command and control" mode of operation. Unless the United States can make serious inroads on this problem, we will never have public school systems that make the best decisions for their students. Nor will we be able to attract and retain a talented teacher corps. (Thorpe, 2014)

⁴ See http://www.trianglecoalition.org/einstein-fellows.

ALBERTS 147

Current Attempts to Make Better Use of Teacher Expertise

In recent years there has been an increasing, widespread recognition of an urgent need to do much more to empower our best teachers. A 2015 book, *The Cage Busting Teacher*, contains a list of more than 30 organizations with such aims (Hess, 2015). Most seem focused on creating a cohort of lead teachers who use their skills to improve their own schools, through mentoring sets of their teacher colleagues and/or through various forms of distributed school governance (see Berry & Byrd, 2013; Hess, 2015; Valdez & Broin, 2015, for a range of such efforts; see also http://www.teachingquality.org and http://www.teacherpowered.org/about).

Especially notable is a push for "teacher-led schools" with distributed leadership—schools in which the teachers select their leaders, select their colleagues, and set schedules—while also determining staffing patterns, the learning program, and school-level policies. This form of management makes great sense to me, resembling the way that departments are managed in universities. For example, I find it amazing that school principals so often act alone in hiring new teachers for a school. Sadly, most current school leaders appear to lack the skill set and vision needed to build the collaborative, team culture required for real school improvement (Talbert, 2010).

The current attempts to improve schools by treating teaching as a true profession will be important for improving the quality of education that students receive in our schools. However, I find them insufficient. We also need a much stronger focus on harnessing the wisdom of lead teachers to continuously improve our local, state, and national education systems.

The Urgent Need for a Change in School System Culture

My personal sense of frustration was forcefully expressed by Alfred North Whitehead:

The art of education is never easy. To surmount its difficulties, especially those of elementary education, is a task worthy of the highest genius.... [But] when one considers ... the importance of this question of the education of a nation's young, the broken lives, the defeated hopes, the national failures, which result from the frivolous inertia with which it is treated, it is difficult to restrain within oneself a savage rage. In the conditions of modern life the rule is absolute, [a country] that does not value trained intelligence is doomed. (Whitehead, 1929, p. 14)

The urgent need for action in harnessing the "trained intelligence" of our many outstanding teachers leads me to raise two important questions. Might a coalition of organizations across the United States launch a

movement to create a_new expectation with respect to school system governance in the United States? If so, then what might its initial strategy be?

To have any chance of altering the deeply embedded, hierarchical culture of today's school districts, any new expectation must not require substantial restructuring of the bureaucracy. Furthermore, to be effective, it should not completely remove the lead teachers involved from their classrooms, converting them into "bureaucrats" who are viewed as being out of touch with reality by their colleagues.

A Possible Strategy for Improving Education Through Systemic Teacher Leadership

Given the above constraints, what might be a successful strategy for empowering teachers in a way that openly and explicitly uses their wisdom of practice to improve the effectiveness of school systems? This essay ends with some suggested ingredients of such a plan, focused at the school district level and presented as a series of possible steps.

- 1. The teacher empowerment process would begin with an announcement by the superintendent and/or the district's school board that a small group of outstanding teachers will be specially selected to serve in an advisory role. This "Teacher Advisory Group" would be chartered to provide the superintendent (and board) with honest feedback from the district's classrooms. The group's findings and advice on how to adjust school district services and policies to improve the education of students would be disseminated as public information.
- 2. The critical next step would be careful selection of a small set of lead teachers for each school district (perhaps 10 teachers, depending on district size). These experienced individuals would continue their teaching for 50 percent time, while being paid to perform meaningful, non-bureaucratic leadership roles for the remaining half time. To ensure a strictly merit-based selection and strong credibility, these teachers should have received some type of outside recognition, such as National Board Certification. Ideally, they would be selected by a panel that includes representatives of some of the district's local partner organizations (e.g., colleges, parent teacher associations, business groups, and/or education NGOs). Each lead teacher would be appointed for a fixed time period (e.g., 3 years), with overlapping terms that ensure rotation.
- 3. The range of issues to be considered by this new Teacher Advisory Group would need to be specified in writing to make sure

ALBERTS 149

that it focuses on the appropriate issues. It is critical that the group not be distracted by issues covered elsewhere, such as teacher compensation (addressed by the teachers union), the closing or restructuring of specific schools (addressed by the school board), and so on. To help catalyze a national movement, a set of model charters for such a group should be produced and widely promulgated by interested experts—including teachers unions and NGOs involved in education.

- 4. Although personnel in the district central office will be important sources of advice and technical support, the Teacher Advisory Group must not be viewed by colleagues as just another part of central office bureaucracy. To this end, for the entire range of issues included within their remit, the group should be empowered to determine its own mode of operation, as well as the priority issues that its members will address each year. The group should be empowered to elect its own officers and to divide tasks appropriately (e.g., chair, vice chair, secretary, communications, website maintenance).
- 5. To ensure its relevance and credibility, this Teacher Advisory Group will need to reach out energetically to other teachers in the school district, periodically soliciting their input and feedback, while constantly keeping them informed with regard to its activities. However, it is important that the group use its own judgment to lead—avoiding a mere reporting on average teacher opinions, for example.
- 6. Because much of what is being suggested represents new territory in U.S. education, a vigorous, high-quality research effort should be launched to study the successes and failures of this new national effort to provide useful guidelines for improving such teacher empowerment processes in the future. Hopefully members of the National Academy of Education would play an important role in such efforts.

In the space allotted for these essays, I have not found room to discuss mechanisms for incorporating more teacher wisdom into state and federal policymaking. However, a much louder voice is needed for our best teachers at these higher levels as well. For science and math education, a start has been made at the national level with the annual appointment of Einstein Distinguished Educator Fellows and the establishment of the National Academies' Teacher Advisory Council. Likewise, the California Teachers Advisory Council represents a start at the state level (see Footnotes 2 and 4). However, in the future even more effective ways to engage

with policymakers at both the state and national levels will need to be developed.

References

- American Association for the Advancement of Science. (1986). Science for all Americans. Washington, DC: Author.
- Berry, B., & Byrd, A. (2013). Teacherpreneurs: Innovative teachers who lead but don't leave. San Francisco, CA: Jossey-Bass.
- English, J. (2014). Finns share their insights about American education. In *The "Finnish way"* to optimize student learning. Retrieved from http://www.TheFinnishWay.org.
- Hess, F. M. (2015). The cage-busting teacher. Cambridge, MA: Harvard Education Press.
- National Research Council. (1996). National science education standards. Washington, DC: National Academy Press.
- National Research Council. (2003). Strategic education research partnership. Washington, DC: The National Academies Press.
- National Research Council. (2012). A framework for K–12 science education: Practices, crosscutting concepts, and core ideas. Washington, DC: The National Academies Press.
- Talbert, J. A. (2010). Professional learning communities at the crossroads: How systems hinder or engender change. In A. Hargreaves, A. Lieberman, M. Fullan, & D. Hopkins (Eds.), *Second international handbook of educational change*. Heidelberg, Germany: Springer-Verlag.
- Thorpe, R. (2014). Sustaining the teaching profession. *New England Journal of Public Policy*, 26(1), Article 5. Retrieved from http://scholarworks.umb.edu/nejpp/vol26/iss1/5.
- Valdez, M., & Broin, A. (2015). *Untapped: Transforming teacher leadership to help students succeed*. New York: New Leaders. Retrieved from http://www.newleaders.org/wp-content/uploads/NewLeaders_Untapped.pdf.
- Whitehead, A. N. (1929). The aims of education and other essays. New York: The Free Press.