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CREATIVE DESTRUCTION

As discussed in the introduction, the first of the international achievement surveys published in the early 1960s showed American schools lagging behind those of other countries. Since then, evidence has accumulated showing a lack of substantial progress despite the world's highest or near highest per-student spending. Even with substantial and steady increases in funding and many reforms, schools have made little progress.

In "The Educational Quality Imperative," Eric Hanushek[1] shows that poor K–12 achievement threatens America's future, particularly for youth as they face the challenge of global competition for knowledge and skills. In contrast to the views of public educators, American students themselves believe they are insufficiently challenged. Citizens, too, are dismayed with the standards and offerings of the nation's public schools, and they favor radical reforms that have been slow in coming.

It is no longer a mystery how to advance achievement. The practices described in the preceding chapters include:

- High, uniform standards;
- Supportive school policies;

1. In preparation.

- Clear, measurable goals;
- Efficient means for achieving the goals;
- Opportunities for sustained, engaged student effort;
- Frequent, close monitoring of results;
- Appropriate reinforcement and correctives;
- Periodic, informative reports for parents, citizens, school boards, and legislators about achievement progress.

The problem is that the responsible parties—legislators, state and local school boards, and public school educators—failed to institute such reasonable policies and practices. Nor have they selected, employed, and evaluated the new computer, Internet, and social technologies of the kind described in the previous chapter that help to make education more efficient.

What is the solution? ''Creative destruction'' brought about by vastly increased school choice, particularly by private providers, including for-profit firms that, unlike large public bureaucracies, have strong incentives to meet performance standards and satisfy their customers.

What is creative destruction? Though he had predecessors, Joseph Schumpeter originated the term in 1942 and popularized it in the early 1940s as the transformative factor of technology in social and economic change. Unlike historians who described ''great men'' and wars, unlike sociologists who emphasized changes in social organization, and unlike economists of the time who pointed to changes in capital and labor, Schumpeter emphasized entrepreneurs who employ radical new technologies that are substantially more effective, efficient, or appealing than past and current technologies. In promoting progress, they eventually destroy older technologies, often employed by large established

firms wedded to old ways.[2] As a result, firms and even whole industries may decline and fall.

These technologies may entail new products, services, and forms of organization, management, transportation, advertising, and financing. Muskets, for example, replaced long bows; plastic replaced glass and wood; and mini-mills replaced large steel mills. Now the Internet is replacing traditional publishing; digital is replacing film photography; television, cable, DVDs, and downloadable media are replacing theaters; mobile cell phones are replacing pay phones and even hard-wired home phones. Today, Google and other technologies challenge newspapers, book publishing, music distribution, and now even the cell phone industry.

Academics continue to study these technological revolutions. At the Harvard Business School, Clayton Christensen revived such thinking about industries in general and argued that "disruptive technologies" seem likely to transform schools.[3] At Stanford University, Paul Romer is the primary developer of New Growth Theory, which puts more emphasis on the force of new ideas than economists' traditional emphasis on additional labor and capital. Holding appointments at both institutions, Niall Ferguson explains in his world history of finance[4] how firms and financial systems were subject to mass extinctions like the many species subject to Darwinian evolution. The bank panics of the 1930s, the savings and loans failures of the 1980s, and perhaps today's mortgage meltdown are modern cases in point.

Given the school failures of the last half-century, the substantial progress needed undoubtedly requires more radical reforms

2. Joseph A. Schumpeter. *Capitalism, Socialism, and Democracy* (New York: Harper, 1975) [orig. pub. 1942].

3. Clayton M. Christensen, "Disruptive Innovation for Social Change," *Harvard Business Review* (December 2006); Clayton M. Christensen and Michael B. Horn, "How Do We Transform Our Schools?" *Education Next* 8, no. 3, (Summer 2008): 13–19.

4. Niall Ferguson, *The Ascent of Money: A Financial History of the World* (New York: Penguin Group, 2008).

than those of the past, specifically the more systematic enactment of well-evidenced technologies of the kind described in previous chapters. More than this, new forms of school organization seem most likely to provide the management and incentives to make use of successful technologies.

New K–12 Schooling Organizations

The previous chapter described examples of the kinds of technologies that might be employed, but equally important are new organizations that can assemble, invent, evaluate, improve, and integrate such components into a successfully functioning system of educational delivery. In ''A New Era for America's Schools,'' for example, John Chubb and Terry Moe describe innovative organizations geared to the new technologies.[5] One example of their impressive evidence is the demand and rapid growth of virtual charter schools that provide distance delivery of education through the Internet. They serve 187,000 students in 24 state-level virtual schools including 62,000 in the Utah Electronic High School and 54,000 in Florida's Virtual School.

These virtual schools exemplify two requirements of the needed creative destruction—new technology and school choice. The positive effects of various forms of choice are described in Chapter 4. They echo the results of dozens of studies[6] of privatization of public services including police and fire protection, airlines, toll-way operation, road maintenance, and other services, which generally show better outcomes than public provision, lower costs, and greater satisfaction of employees and clients. Firms typically compete for contracts for such services. If they fail to meet performance specifications, they risk losing their contracts and even

5. Terry M. Moe and John E. Chubb, *Liberating Learning: Technology, Politics, and the Future of American Education* (San Francisco: Jossey-Bass, 2009).

6. Charles C. Wolf, *Markets or Governments: Choosing between Imperfect Alternatives* (Cambridge: MIT Press, 1988).

going out of business. The competitive effects and destruction of poor performers tends to quickly raise the bar.

Despite such industry precedents and the generally positive results of school choice programs, John Merrifield points out that the U.S. potential of school choice and privatization appears to be vastly underestimated.[7] Most of the nation's charter schools, for example, are small and individually governed by inexperienced boards unlikely to master complex government regulations, building acquisition and maintenance, labor relations, and the like—much less the integration of new technologies.

Private and charter schools and their boards may also be too small to attain the economies of scale, that is, to produce equal (or better) outcomes at reduced per-student costs as they grow larger, which would enable them to invest in research and development to improve their offerings. Even if successful, the small number of choice schools may be insufficient to produce strong, competitive, even creatively destructive effects on surrounding lackluster schools. Nonprofit private and charter schools, moreover, lack strong monetary incentives to raise achievement outcomes, reduce costs, offer distinctive goals and means, and to generally increase their appeal to their customers—parents and students.[8] As in other industries, for-profit colleges successful in these ways attract more students, increase their income, and can reward their shareholders, managers, and staff. They are rapidly growing.

Thus, although better practices described in previous chapters can improve achievement in conventional schools, market-based, consumer-driven school choice seems the best hope for creative destruction by new technologies. America's high technology and

7. On the prospects of bolder initiatives than those of the past, see *The Future of Educational Entrepreneurship: Possibilities for School Reform* Frederick M. Hess, editor (Cambridge: Harvard Education Press, 2008).

8. John Merrifield, "*The Dismal Science: The Shortcomings of US School Choice Research and How to Address Them.*" *Policy Analysis* number 616 (Washington, DC: Cato Institute, April 2008).

free markets may bode well for such a combination, but can an affluent country in the West be named that shows the success that a fully-fledged, large-scale parental-choice system allows?

The Swedish Example

How can the most promising ways of improving K–12 education—school choice and technology—best be fostered? The answer appears to be freer markets and competition among schools. Consider the bold Swedish innovation. Perhaps more than those in other western European countries, Swedish authorities and citizens had been concerned about primary and secondary students' poor showing on international achievement surveys and the possible long-term consequences.[9]

In 1993, the Swedish government required all local education authorities to fund privately operated choice schools at a per-student cost close to that of nearby traditional public schools within their districts. New schools had to meet basic requirements including an open-admission policy under which schools had to admit all applicants regardless of ability, ethnicity, and socioeconomic level. The new policy did not rule out for-profit schools that conformed to the national policy.

Unlike the few small-scale, heavily regulated voucher plans in the United States, new voucher schools were established in a broad cross-section of neighborhoods, including high-income areas as well as locales serving predominately working-class and immigrant populations. In terms of scale, the number of independent schools saw a fivefold increase. Contrary to anticipated fears, neither economic segregation nor isolation of special-needs students grew. The new policy led to increased competitiveness, improved student

9. Some observations reported in this last section are based on conversations over about a decade with Swedish scholars and education ministry officials about education policy.

achievement, and greater parental satisfaction with their children's schools.[10]

Unexpectedly, for-profit chains of schools were founded and grew quickly. Ten chains have more than 6 schools, and 5 run more than 10 schools each.[11] With 30 campuses, the biggest for-profit is Kunskapsporten (''Knowledge Schools''), which the *Economist* describes as follows:

> Like IKEA, a giant furniture-maker, Kunskapsporten gets its customers to do much of the work themselves. . . . Youngsters spend 15 minutes each week with a tutor, reviewing the past week's progress and agreeing on goals and a timetable for the next one. This will include classes and lectures, but also a great deal of independent or small-group study. The Kunskapsporten allows each student to work at his own level and spend less or more time on each subject, depending on his strengths and weakness. Each subject is divided into 35 steps. Students who reach step 25 advance with a pass; those who reach steps 30 and 35 gain, respectively, a merit or distinction.

On a password-protected Internet site for each of the students and their families, Kunskapsporten reports the weekly progress in each course of study, which parents can review. By the time they finish, only a few students are unable to set achievement goals and attain them largely on their own, which should be expected of schooled adults. Kunskapsporten keeps quantitative records to determine which teachers do best as tutors or as subject matter teachers; tracking enables leaders to help or reassign laggards. Highly successful teachers receive bonuses, as do those who transfer from successful to unsuccessful schools. From annual payments of $8,000–$12,000 per student, Kunskapsporten makes an average return on capital of

10. F. Mikael Sandstrom and Fredrick Bergstrom, ''School Vouchers in Practice: Competition Won't Hurt You!'' *Journal of Public Economics* 89, nos. 2–3 (2005): 351–80.

11. ''The Swedish Model,'' *Economist* (June 12, 2008): pp. 45–46. http://web.economist.com/displaystory.cfm?story_id=11535645.

around 6 percent and is negotiating with U.K. authorities to open schools in London.

Thus, Kunskapsporten and other Swedish for-profit school firms show they can compete and thrive. Given monetary incentives, they can improve achievement, satisfy parents and students, and quickly attract new customers. Kunskapsporten does so by employing a system of variations of the successful practices described in previous chapters including the kind of new technologies illustrated in the previous chapter. These include close working relations with parents, regular Internet reports on their children's progress, clear measurable goals, close computer monitoring of achievement, student goal and time budgeting with a tutor's guidance, student (and teacher) incentives, and lesson pacing suited to the learner's individual needs.

Why did this high-tech firm and other for-profit companies pioneer and thrive with nationwide vouchers in Social Democratic, ''Old World'' Sweden rather than in market-driven, capitalistic, ''tech-savvy'' America?

Conclusion

American students are not learning nearly as much as they can, nor as much as the competitive global economy requires. As exemplified in rigorous studies described in this book, the use of psychological principles can vastly quicken learning. Like biological principles that underlie medical practice, these principles should become the principles of school practice. As explained in previous chapters, the psychological principles are represented in such practices as close cooperation of parents and educators to support student learning; clear, measurable learning goals; effective teaching methods; close monitoring of learning progress; and appropriate correctives, reinforcement, and incentives.

Despite substantial increases in spending, little progress has

been made in the last three decades to systematically implement such practices. The evidence described in this book suggests two broad solutions. Studies of new technologies show they can represent the psychological principles more fully and furnish instruction better adapted to individual learners. In most cases, they enable learners to learn as much as through conventional methods but more conveniently and in less time; and in some cases they are superior. Technologies, moreover, are rapidly improving and can be delivered whenever convenient to remote locations including schools and students' homes.

The second promising solution is parental choice of schools. Students in charter schools, parochial schools, and independent private schools exceed on average comparable students in public schools. But many middle-class and poor families live in areas without charter schools, and many parents cannot afford private school tuition. U.S. and foreign research supports the efficacy of vouchers to enable families to send their children to private schools of their own choosing, but few American families have been offered vouchers to enable them to choose their children's schools. Other countries made vouchers widely available, and extensive research shows their success.

Of the countries with nationwide vouchers, Sweden is the western country closest in income to the United States. Swedish research shows that nationwide vouchers yield excellent achievement results and parent satisfaction. Perhaps surprisingly, Swedish for-profit schools are growing the fastest and, with 30 campuses, the largest for-profit school firm exemplifies the efficient integration of technology and instructional practices that efficiently incorporates the psychological principles of learning.