Large-scale reform comes of age

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Published online: 10 April 2009

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Abstract This article reviews the history of large-scale education reform and makes the case that large-scale or whole system reform policies and strategies are becoming increasingly evident. The review briefly addresses the pre 1997 period concluding that while the pressure for reform was mounting that there were very few examples of deliberate or successful strategies being developed. In the second period—1997 to 2002—for the first time we witness some specific cases of whole system reform in which progress in student achievement was evident. England and Finland are cited as two cases in point. In 2003-2009 we began to observe an expansion of the number of systems engaged in what I call tri-level reform—school/ district/government. As Finland, Singapore, Alberta, Canada, Hong Kong, and South Korea continued to demonstrate strong performance in literacy, math and science, Ontario joined the ranks with a systematic tri-level strategy which virtually immediately yielded results and continues to do so in 2009. The nature of these large-scale reform strategies is identified in this article. It can be noted that very little productive whole system reform was going on in the United States. Aside from pockets of success at the level of a few districts since 2000, and despite the presence of a 'policy without a strategy' in the form of No Child Left Behind the US failed to make any progress in increasing student achievement. In the final section of the paper I consider the early steps of the Obama administration in light of the 'theory of action' of whole system reform identified in this article and predict that there we will see a great expansion and deepening of large-scale reform strategies in the immediate future, not only in the U.S. but across the world.

Keywords Large scale reform · Capacity building · Leadership for change · Whole system improvement

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I had the honor of writing the lead article in the launching of *The Journal of Educational Change* in Volume 1, Number 1 (Fullan 2000). A decade later it is a pleasure to help celebrate the very successful first decade of JEC. My earlier article was entitled 'The Return of Large-Scale Reform,' and it is that theme that I pursue here. Did it return? Is large-scale reform progressing? Is it alive and well and thriving in the best systems in the world? Indeed it is—with a vengeance.

In this update I do a brief review of the history of large-scale reform pre-1997, and 1997–2002, and then delve more deeply into the 2003–2009 era, ending with a reflection on what's next 2009 onward. By large-scale reform I mean deliberate policy and strategy attempts to change the *system* as a whole. I define a system to include a government and all its schools—what I have called tri-level reform: schools and their communities, districts or region, and state (the latter sometimes involves two levels (state and federal).

The good news is that deliberate system reform is flourishing (which does not mean we have all the answers) (Fullan 2007). The next decade should show more progress than the previous three decades combined.

A brief history: Pre-1997

One doesn't have to believe that Sputnik was the literal cause of large-scale reform in the U.S. post-1957, or that all education innovations started in the 1960s to know that something very different was in the air. Elmore (1995), in fact, starts earlier in describing the pre-1950s 'progressive period':

What is most interesting about the progressive period, as compared with other periods of educational reform, is that its aims included explicit attempts to change pedagogy, coupled with a relatively strong intellectual and practical base. Noted intellectuals—John Dewey, in particular—developed ideas about how schools might be different (Elmore 1995, p. 7).

Progressive reformers believed, as noted by Elmore, that for the most part "good ideas would travel of their volition" into schools and classrooms (p. 18). The strategy, says Elmore, especially over time, "turned inward, toward the creation of exemplary settings" (p. 11). The result:

We can produce many examples of how educational practice could look different, but we can produce few, if any, examples of large numbers of teachers engaging in these practices in large-scale institutions designed to deliver education to most children (Elmore 1995, p. 11).

In other words, good practice did not spread. Despite these failures, and indeed ignoring their lessons, the Federal Government in the U.S. launched a large-scale national curriculum reform series of initiatives in the late 1950s and through the 1960s. I have previously labeled this the 'adoption era' of reform because the goal was to get innovations out there, as if flooding the system with external ideas would bring about desired improvements. Huge sums of money were poured into major curriculum reforms like PSSC Physics, BSCC Biology, and MACOS Social



Sciences, and organizational innovations such as open plan schools, flexible scheduling, and team teaching.

By the early 1970s there was mounting evidence that the yield was miniscule, confined to isolated examples. Goodlad's et al. (1970) *Behind the Classroom Door*, Sarason's (1971) *The Culture of the School and the Problem of Change*, and Gross's et al. (1979) *Implementing Organizational Innovations* all attested to the absence of change at the level of the classroom. The term 'implementation (or more accurately, 'failed implementation') came into the vocabulary of reform. In a major review of research (Fullan and Pomfret 1997) we documented the massive failure of reform. Putting ideas into practice was a far more complex process than people realized.

What these models missed said Elmore:

Was the complex process by which local curricular decisions get made, the entrenched and institutionalized political and commercial relationships that support existing textbook-driven curricula, the weak incentives operating on teachers to change their practices in their daily work routines, and the extraordinary costs of making large-scale, long-standing changes of a fundamental kind in how knowledge is constructed in classrooms (1995, p. 15).

There was actually great pressure and incentives to becoming innovative and this resulted in many schools adopting reforms for which they did not have the capacity (individually or organizationally) to put the reforms into practice. Innovations, thus, were adopted on the surface with some of the language and structures becoming altered, but not the practice of teaching.

Another major force for reform around the Western world in the 1960s was the various forms of civil rights movements which pinpointed scores of inequities. Numerous national initiatives across the world focused on the disadvantaged. The education system was thought to be one of the major societal vehicles for reducing social inequality. To the intrinsic complexity of changing one's practice was added the enormous difficulty of tackling the existing power structure and overcoming the prejudice and ignorance of ethics, class, gender, and special differences of all kinds. Nor is there much evidence that the lives of the disadvantaged have improved, even in cases where sincere efforts to do so are in evidence (Oakes and Lipton 1999). And where gains have been achieved, it has been in isolated cases, seemingly guaranteed not to go to scale.

Not much progress was made in the 1960–1996 period despite renewed interest in large-scale reform in the 1980s when accountability schemes were introduced. The *pressure* for reform increased, but not the reality. The urgent reasons for reform are now familiar. The global society is increasingly complex, requiring educated citizens who can learn continuously (Drucker's (1999) knowledge worker), and who can work with diversity, locally and internationally. Although the source of blame varies, it is now an undeniable conclusion that the educational system and its partners have failed to produce citizens who can contribute to and benefit from a world which offers enormous opportunity, and equally complex difficulty of finding your way in it. Rohlen (1999) makes this case convincingly in his analysis of "Social Software for Learning Society" in which he argues:



In essence, the message is that our schools need to teach learning processes that better fit the way work is evolving. Above all, this means teaching the skills and habits of mind that are essential to problem-solving, especially where many minds need to interact (pp. 251–252).

In any case, by 1996 large-scale education reform was a largely unfinished agenda with virtually no deliberate strategies evident that promised real improvement.

Large-scale reform: 1997-2002

Again we can be brief because the explicit strategic action focusing on whole-system reform began post-2002—as we shall see some of it a massive failure, other parts showing great promise with early benefits on a large scale. I will focus on England, the U.S., Canada and Finland as examples of the growing movement to system reform.

England: 1997-2002

England in 1997 was arguably the first government in the world to use an explicit theory of large-scale change as a basis for bringing about system reform. When Tony Blair was elected for the first time in 1997 he made 'education, education, education' as his three top priorities. More specifically to the point for our purposes Blair and his chief strategist Michael Barber deliberately based their strategy on the 'change knowledge' available at the time. In particular, his government designed a National Literacy and Numeracy Strategy (NLNS) to improve the achievement of 11 year-olds in all of its 20,000 primary schools—this was large-scale reform to say the least! There is some debate in interpreting the results but the percentage of 11 year-olds achieving high proficiency increased from 63% in 1997 to 75% in 2002 in literacy; in numeracy the figures respectively were 62–73%.

Michael Barber (2008) characterized the strategy of action behind NLNS as high challenge-high support in relation to six key elements: ambitious standards, good data and clear targets, devolved responsibility, access to best practice and quality professional development, accountability, and intervention in inverse proportion to success (low-improving schools receive extra attention).

The debate around the results has centered around three issues: (1) much of the gain was caused by trends pre-1997, i.e., prior to the strategy; (2) the results are more apparent than real; and (3) the strategy was too driven from the center resulting in a narrow focus on testing in only two subjects, and it failed to be deeply embraced by school heads and teachers.

As to the first two points there is no question in our teams' view (a team from Ontario evaluated NLNS from 1997 to 2001, Earl et al. 2003) that the results were by and large real and impressive. International comparisons also bore out this conclusion. There were thousands and thousands of more literate and numerate children in England by 2001. The third criticism is closer to the mark. The tests



were too narrow (but not as narrow as some critics claimed), and there was no doubt that after some initial success the top-down strategy failed to capture the hearts and minds of school heads and teachers. One indication of this is that after an initial leap in scores the results plateaued for 2000, 2001, 2002.

Our goal here is not to resolve the debate—we have larger perspectives to pursue. The main point is that NLNS was a promising initiative which gave us an opportunity to assess specific components of a whole system strategy.

United States: 1997-2002

There is really not much to say about the U.S. in this period. There was no national strategy, no explicit use of change theory, and aside from a successful school district here and there, there was no progress. In fact if you take as a reference point the gap between low and high performing children the U.S., which has been moving backward since 1980, continued to do so.

The facts are well documented in the detailed study by two Harvard economists of education trends in the U.S. (Goldin and Katz 2008). Their sweeping and evidence-based conclusion is:

...the first three quarters of the American century was an era of long-term economic growth and <u>declining</u> inequality...But by the end of the 1970s, an abrupt and substantial rise in economic inequality ensued... [And] inequality today is as high as during the Great Depression and probably for some time before (p. 3, emphasis in the original).

Goldin and Katz observe that educational decline (or failure to progress) paralleled economic trends: "the slowdown in the growth of educational attainment has been most extreme and disturbing for those at the bottom of the income distribution" (p. 7).

There have been some efforts by the U.S. at large-scale reform but they are not *systemic*, i.e., some of these initiatives involve large numbers of schools, but do not encompass all schools within a jurisdiction. Whole-school reform models is one such example. The American Institutes for Research (1999) reviewed 24 whole-school comprehensive models. Of the 24 models assessed by AIR, three demonstrated strong evidence of 'positive effects' on student achievement—Direct Instruction, High Schools that Work, and Success for All; showed promising effects, and the other 16 had little impact.

Concerning those programs that were initially successful few are sustained. Datnow and Stringfield (2000) talk about the problem of 'longevity of reform'. In one study of eight schools only three "had clearly moved toward institutionalizing their reforms" (p. 196). In another set of case studies Datnow and her colleagues (2002) conducted a longitudinal study of 13 schools finding that only 4 of the 13 were still using the reforms after 6 years. These and other studies led the researchers to ask, "Do reforms that are transplanted last? Most often the answer is ... no" (p. 232).



One of the problems is that these strategies focus on schools as parts of the system, and thus do not address 'context'. All and all the absence of a well-founded system strategy either at the state or federal level in the U.S. continues to take its toll.

Canada: 1997-2002

There is no federal involvement whatsoever in public K-12 education in Canada so one must consider each province. The front-runners on most international assessments are Alberta, British Columbia, Ontario and Quebec. For this period I take Alberta and Ontario as positive and negative examples respectively.

One of the variables that interest us in this article is whether or not a country or province's success is based on a self-conscious change strategy. In one sense first instances of success do not have to be explicit and deliberate, although I maintain that continued progress, and certainly the spread of effective strategies must be amenable to description.

Alberta is an example of being successful without necessarily being clear and articulate about its strategy. Alberta does very well on international assessment (usually in the top five countries). It attracts good quality teachers and administrators, has good relationships among teacher unions, school districts, trustees, universities and the government. It is also blessed with strong natural oil resources which generated a strong financial base. Beyond these factors its strategy is based on two independent pillars—innovative capacity building, and accountability.

Capacity building and innovation has been pursued through the Alberta Initiative for School Improvement (AISI) fund that began in 1998 and supplies substantial funds to all districts in the province based on submitted proposals. At the same time there is a well documented database which tracks and reports data on progress using various indicators. Although, unlike England there are no intervention consequences for poor performance the natural ingredients of innovative money, and the soft pressure of transparency data has served to give Alberta a strong start in the large-scale reform business.

By contrast, Ontario during this same period proceeded as it turned out to weaken its public education system. From 1995 to 2003, the Conservative government of the time introduced some structural changes (e.g., reducing the number of school districts, establishing an assessment agency), substantially reduced the public education budget, and generally engaged in a running battle with the teachers in the province. The result was bitter conflict, low morale and a flatlined performance in literacy and numeracy in the 1998–2002 time period. Ontario was still a good performing system, but weakened by the absence of a positive strategy.

Finland: 1997-2002

Finland, now recognized as one of the top systems in the world began its climb from the doldrums in the 1990s. Hargreaves et al. (2007) in their OECD review of



Finland trace the beginning to decisive action to invest in a country-wide economic turnaround. Finland, say Hargreaves and Shirley (in press) "set about designing a creative, high-skill, high-wage knowledge economy in which people invent, apply, share and articulate knowledge at a level that surpasses all competitors" (p. 84).

Investment and the valuing of education including the growth of a powerful high quality teaching force also began in this period. More about Finland later, but it certainly demonstrated in 1997–2002 that a medium-sized country (5 million people) can turn itself around through a combination of vision and society-wide commitment.

Large scale reform comes of age: 2003-2009

Coming of age does not mean that one has matured, but that people are definitely and seriously in the game. As this happens the work becomes more analytical as well as action-oriented. Michael Barber in a recent International Education Dialogue (2008) characterized this new development as 'professionalizing system reform'.

There is more convergence, but not consensus; debates are more about how to realize system reform, not so much what it is. Thus, everyone agrees that high quality teachers are critical, and that leaders and teachers working together focusing on student learning and achievement is essential. But there are sharp differences concerning the policies and strategies for reaching these outcomes. In this section I talk about actual country examples including the top-performing systems in the world as we take stock of the new developments emerging.

As before with respect to the U.S. we can be brief. There is some good news. Generally NCLB has put the spotlight on those falling behind, and has sparked greater attention to data and its use. In particular, district-wide reform developed in the 2003–2008 period with several notable successes in raising the bar and closing the gap—Chula Vista and Long Beach in California, Guilford County in North Carolina, Boston, and Chicago just to name a few. Also, Minnesota as a state did well on the TIMMS international tests in comparison with other countries. Unfortunately NCLB continues to limp along doing more harm than good with too many and too narrow tests, short time lines, little capacity building, and a punitive strategy. No state or the federal level has an explicit system reform strategy that comes even close to what we know is needed. The only good news is that there is a rapidly growing realization that existing strategies are not working as the U.S. continues to lose ground internationally; and the best news: key leaders are beginning to show interest in particular strategies that get results—more about this soon.

A good place to start on the positive side of the equation is the McKinsey Report that examined the characteristics of the 'top performing systems' in the world (Barber and Mourshed 2007). On benchmark measures of literacy, numeracy, and science the countries that perform consistently well ranking in the top 5 or 6 typically include Finland, Hong Kong, Singapore, Taiwan, Canada (Ontario, Alberta, Quebec), South Korea.



The McKinsey group set out to identify *policies and strategies* (i.e., instruments amenable to manipulation) that accounted for the differences. They found four big factors: (1) attracting high quality people to the teaching profession (academics plus suitability for teaching); (2) a focus on and strategies for developing quality instructional practices on an ongoing basis on the job; (3) cultivating, selecting, and developing instructionally oriented leaders (especially principals, but also others at the district and state levels); and (4) continuing data-based attention to how well individual students, schools, and sets of schools are doing with early intervention to address any problems.

It is true that several of the countries are small (all of the above except South Korea and Canada have populations under 5 million) but this does not contradict that the four factors are essential. The variability may be in the difficulty of addressing them. There are also subtleties in how the policies play out. Singapore's strategies are tightly orchestrated. Finland's are more organic. But the core components are similar.

To consider Finland we can draw on Hargreaves et al. (2007) who recently conducted for OECD a review of the country's educational system. In interpreting what they discovered, Hargreaves (2009) and Hargreaves and Shirley (in press) cite 'a high quality teaching profession,' supportive working conditions,' 'professional trust,' and 'an inspiring country vision' as key elements accounting for success.

Overall these findings from the top-performing countries are encouraging. In my view the next phase of reform must investigate and sort out the subtleties and differences by context. Incidentally, one cardinal rule in systems reform is never, ever, endorse *one factor at a time* as key. For example, to note that Finland has no national testing and is at the top does not mean that the absence of testing is always a good thing. Successful system reform usually means that a small number (up to half dozen) of powerful factors are interacting to produce substantial impact. It is the interaction effect that accounts for the results.

Ontario is such a case where, since 2003, we have deliberately and self-consciously employed a system set of strategies to take a stagnant system into dynamic success. Levin et al. (2008) call Ontario's Story, 'results without rancor'. The Ontario strategy is based on three overriding sustaining elements: respect for staff and for professional knowledge, comprehensiveness, and coherence and alignment through partnership between the government and the field (schools and districts).

Ontario identified a small number of ambitious goals (literacy, numeracy and high school graduation), established a dedicated capacity building infrastructure of leadership, and works to negotiate targets and use data to mark progress and intervene early where problems are occurring. While there is much still to be done the strategies are 'working' in that progress has been steady (with some plateaus) in the 6 years that it has been underway (for a more detailed account see Levin 2008).

Coming of age does not mean full agreement. There are sharp differences concerning what reformers choose to emphasize. Compare, for example, Barber and Hargreaves both long- standing and intensive students and practitioners of system reform. Barber (2008, 2009) stresses the need for system leadership along with capacity building. He claims that system reform is no longer about the right agenda



but about actually *implementing* it. In particular, he argues for combining three components: the new professionalism of the teaching profession as a whole, citizenship empowerment, and strategic leadership from the government.

For Hargreaves there is too much 'command and control' in Barber's solution (and for Barber I suspect that Hargreaves' recommendations leave too much to chance). Hargreaves takes us through an evolution of the 'Four Ways of Change'. In The First Way teachers and the profession had great freedom and autonomy (let's say the 1960s and 1970s). The Second Way, says Hargreaves involved goals, performance targets, parent choice, and capacity building (the 1980s and 1990s).

The Third Way is based on top-down government performance targets (as in the Second Way), along with capacity building, and lateral learning through peer pressure and support. Hargreaves' (2009) and Hargreaves and Shirley's (in press) Fourth Way consists of combining top-down 'national vision, government steering and support with 'professional involvement' and 'public engagement' all for the purpose of promoting 'learning and results'.

This is all good stuff in that we are all playing in the same arena. The next period is going to be crucial because it will be one where we try out the good new ideas that are emerging and continue to debate them and sort them out in relation to actual empirical cases. Until very recently there have been too few country examples of deliberate tri-level or system reform. Now there are several and the interest is growing, sparked among other forces by the incisive analyses of benchmark performances and related policies through OECD's PISA assessments. (Schleicher 2009). System reform is poised to move rapidly ahead in the immediate future.

What's next: 2009 and beyond

Let me first say that new leadership paradigms (and new leaders exemplifying them) are emerging at the same time—paradigms that are especially suited to leading system reform. The old (and still prevalent) paradigm consists of having a vision, figuring out how to get appointed or elected, surround yourself with supporters, try to overcome the opposition—all in the service of doing good. The trouble is that it doesn't work. You can win the odd battle, but never the war.

The new paradigm does involve having a broad directional vision, but it has humility—listen to others including those with whom you disagree, respect and reconcile differences, unify opposition on a higher ground, identify win—win scenarios, be hopeful and humbly confident no matter what. I have tried to capture the essence of this leadership in two recent books. In *The Six Secrets of Change* the combination of love your employees, connect peers with purpose, capacity building over judgmentalism, learning is the work, transparency (of results and practice) rules, and systems learn foster deep organization reform (Fullan 2008).

In *Turnaround Leadership in Higher Education*, Geoff Scott and I probed deeply into the inadequacy of university cultures, leadership and performance (high percentages of undergraduates fail to finish their programs, for example) in order to identify leadership that does make a difference (Fullan and Scott 2009). We found that effective system leaders these days 'listen, link and lead', and 'model, teach and



learn'. They represent many of the Third and Fourth Way qualities, and leadership through directing and steering, building widespread capacity and ownership, and being transparent about strategy and results.

For system reform in education such leadership must show up at all levels of the system—teacher leaders, principals, district administrators, and government including especially presidents, prime ministers, premiers, governors, ministers, state superintendents, director generals, deputy ministers and their direct reports.

As we consider what such leaders might be doing we certainly can infer some directions from the 'tea leaves' of the system brew of the past 5 years. I consider the U.S. because it is such a big case of failed hope but desperate want. I see four new developments at least—teacher quality and reward, revamping NCLB to focus on quality and capacity building, transparency, and leadership.

Teacher quality on the average is lower in the U.S. than in the top 15 or so higher performing OECD countries. It is a system problem (see Darling-Hammond 2009). Perversely within the system, incentives work to the effect that the least experienced teachers and principals work in the worst schools. One can predict that in the very near future policies to improve the quality of teachers will definitely be put into place. These will include front-end loading of beginning teacher salaries (the first 10 years of the career), paying teachers and principals higher salaries to teach in the most challenging schools, and higher still if they get results, and generally seeing an emphasis on substantially higher salaries for teachers in exchange for higher expectations and corrective actions in the case of poor performing teachers (not as measured by narrow test scores of their students).

Second, No Child Left Behind will be revamped. In its 8 years of existence it has held out great moral expectations along with one of the weakest system reform strategies that one can imagine. Unattainable goals, little investment in capacity building, narrow and overloaded testing, ridiculously short timelines, and differing standards as each of the 50 states is allowed to establish its own (again, mostly limited) set.

Third, we will see is a new emphasis on capacity building, especially with respect to 'deep instructional practice', and in strategies for 'raising the bar and closing the gap' in student achievement. It is beyond my scope here to go into detail but in the meantime (over the past 5 years) good progress has been made in the research field in going beyond narrow tests and simple teaching practices to what I would call deep instructional practice and corresponding assessment of student learning. There are several rich examples of these developments. Hattie's (2009) meta-analysis of effective instructional practice has verified and named key high-yield instructional practices. Elizabeth City and her colleagues (in press) have documented their very powerful strategy of "instructional rounds." Cisco, Intel, and Microsoft have just launched a much needed global project with leading academics to develop and assessments and corresponding instructional practices for twenty-first Century skills thereby addressing the narrowness, and low level of current testing in the U.S. and elsewhere. These developments will take off as the world seeks higher order skills and capacities from students and their teachers.

What might turn out to be most significant is the U.S. is the new American Recovery and Investment Act, 2009, which is part of President Obama's stimulus



package. Two things are especially significant. One is the sheer magnitude of the investment—more than 100 billion new dollars. The other and even more important factor is the ideas that lay behind the investment—5 billion, for example, in incentive grants for states who most aggressively pursue high quality capacity building within which 650 million will be used to fund school systems and non-profit organizations with strong track records in improving student achievement. Put another way, the money will be used to drive the kinds of strategies that I am advocating in this article—the strategies that are associated with top performing school systems.

As part of this development in the U.S.—because it is so poorly and loosely framed—we will likely see national curriculum frameworks (in literacy, math and science), partnership modes between the federal and state governments, more sophisticated assessment of student learning and links to strong instructional practice.

Third, and very closely interrelated, we will see greater transparency of results and practice, and early and constructive intervention in cases of individual, school and district failure to progress. In this mix the nuances of accountability will likely vary with some erring on the side of too much command and control, others on the side of permissive autonomy and some getting the balance right.

Fourth and finally there will be a big push on leadership development commensurate with the requirements of the first three trends. It is difficult to detail how this might evolve, but it is safe to say that new forms of leadership, along the lines of the demands of reform outlined here will be part and parcel of the integrated package of system reform.

Around the world, now that deliberate system reform is being considered and acted upon, we can expect continuing developments on the part of those who have gone first. Singapore, Hong Kong, Finland, Ontario, Alberta, England, and so on are all engaged in self-conscious strategy formulation and implementation looking to what they can learn from their own and others' experiences and evidence therein.

Finally, and beyond the four elements within the education system that I have identified we will see a widening and deepening of system reform—not just education systems, but the *whole* system. Non-school factors which have a major impact on school performance must be included. Early childhood—long recognized as key—and even longer neglected, will start to be taken seriously as will other non-school components. Neuman's (2009) book on the seven essential principles of highly effective non-school programs is right on the money as far as this article is concerned. In her research the most effective and impactful programs embedded seven characteristics. These successful programs: actively target the neediest children, begin early in child's lives, emphasize coordinated services, focus on boosting academic achievement through high-quality instruction, deliver instruction by trained professionals, acknowledge that intensity (depth, consistency) matters, and hold themselves accountable for results.

Taking all of this together we can predict that the next wave of change will be truly *systemic* by attempting to integrate non-school factors (e.g., parent education, after-hours programs, poverty reduction efforts) as well as school factors known to make a difference.



In short, system reform is indeed beginning to come of age. Whatever the combinations we will witness the growing professionalisation of reform—self-conscious, deliberate, attempts to use the growing body of change knowledge to continuously improve whole systems. Much will be learned, and I would venture to say, accomplished in the next 5 years. Finally, we have system reform that has great promise.

References

Barber, M. (2008). Instruction to deliver. London: Methuen. (revised paperback).

Barber, M. (2009). From system effectiveness to system improvement. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 71–94). Bloomington, IN: Solution Tree.

Barber, M., & Mourshed, M. (2007). How the world's best performing systems came out on top. London: McKinsey & Co.

Cisco, Intel, & Microsoft. (2009). Transforming education: Assessing and teaching 21st century skills. Author.

City, E., Elmore, R., Fiarman, S., & Teitel, L. (in press). Instructional rounds in education. Cambridge, MA: Harvard Education Press.

Darling-Hammond, L. (2009). Teaching and the change wars. In A. Hargreaves & M. Fullan (Eds.), *Changes wars* (pp. 45–68). Bloomington, IN: Solution Tree.

Datnow, A., Hubbard, L., & Mehan, H. (2002). Extending educational reform: From one school to many. London: RoutledgeFalmer Press.

Datnow, A., & Stringfield, S. (2000). Working together for reliable school reform. *Journal of education for students placed at risk*, 5(1–2), 183–204.

Drucker, P. (1999). Managing challenges for the 21st century. Oxford: Butterworth-Heineman.

Earl, L., Fullan, M., Leithwood, K., & Watson, N. (2003). Watching and learning: OISE/UT evaluation of the national literacy and numeracy strategies. London: Department for Education and Skills.

Elmore, R. (1995). Getting to scale with good education practices. *Harvard Educational Review*, 66(1), 1–26.

Fullan, M. (2000). The return of large-scale reform. Journal of Educational Change, 1(1), 5-28.

Fullan, M. (2007). *The new meaning of educational change* (4th ed.). New York: Teachers College Press. Fullan, M. (2008). *The six secrets of change*. San Francisco: Jossey-Bass.

Fullan, M., & Pomfret, A. (1997). Research on curriculum and instruction implementation. *Review of Educational Research*, 47(1), 335–397.

Fullan, M., & Scott, G. (2009). Turnaround leadership in higher education. San Francisco: Jossey-Bass. Goldin, C., & Katz, L. (2008). The race between education and technology. Cambridge, MA: Harvard University Press.

Goodlad, J., Klein, M., & Associates. (1970). Behind the classroom door. Worthington, OH: Charles A. Jones.

Gross, N., Giacquinta, J., & Bernstein, M. (1979). *Implementing organizational innovations*. Berkeley, CA: McCutchan.

Hargreaves, A. (2009). The fourth way of change. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 11–43). Bloomington, IN: Solution Tree.

Hargreaves, A., Halász, G., & Pont, B. (2007). School leadership for systemic improvement in Finland. Paris: Organization for Economic Cooperation and Development.

Hargreaves, A., & Shirley, D. (in press). The fourth way. Thousands Oakes, CA: Corwin.

Hattie, J. (2009). Visible learning. London: Routledge.

International Education Dialogue. (2008). Report of the third annual IED. Melbourne, Australia: Department of Education.

Levin, B. (2008). How to change 5000 schools. Cambridge, MA: Harvard Education Press.

Levin, B., Glaze, A., & Fullan, M. (2008). Results without rancor or ranking: Ontario's success story. Phi Delta Kappan, 90(4), 273–280.

Neuman, S. (2009). Changing the odds for children at risk. Westport, CT: Praeger Publishers.



- Oakes, J., & Lipton, M. (1999). Teaching to change the world. Boston: McGraw-Hill.
- Rohlen, T. (1999). Social software for a learning society. In D. Keating & C. Hertzgran (Eds.), Developmental health and wealth of nations (pp. 251–273). New York: The Gilford Press.
- Sarason, S. (1971). The culture of the school and the problem of change (2nd ed., 1982). Boston: Allyn & Bacon.
- Schleicher, A. (2009). International benchmarking as a lever for policy reform. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 97–115). Bloomington, IN: Solution Tree.

