SPRINGER INTERNATIONAL HANDBOOKS OF EDUCATION 23

Andy Hargreaves Ann Lieberman Michael Fullan David Hopkins *Editors* 

Second International Handbook of Educational Change

PART 1



# SECOND INTERNATIONAL HANDBOOK OF EDUCATIONAL CHANGE

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# Second International Handbook of Educational Change

# PART 1

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Ten years ago, generational researchers Strauss and Howe (1997) anticipated a great disruption when our world would take a great turning. After three earlier turnings that defined a time of prosperity, optimism, security, pragmatism, and social conservatism in the 1950s; a period of cultural and spiritual awakening in the 1960s and 1970s; and an era of individualism, self-centeredness, and general unraveling in the 1980s and 1990s, Strauss and Howe predicted a Fourth Turning which, they claimed, will be as dramatic as the last Fourth Turning in the Great Depression of the 1930s. This turning, they argue, brings economic collapse and financial ruin, insecurity and conflict, and a shaking of society to its very foundations, with the emergence of structures, cultures, and politics, as well as value and belief systems that are profoundly different on the other side. At the Fourth Turning, people start to turn outward again, beyond themselves, in search of the spirituality, sustenance, and support that can connect them once more to their fellow women and men.

Although the Fourth Turning is borne of crisis, it beckons with the prospect of great transformations and opportunities. Yet it does not show what these are. This is a defining moment for all of us. In the midst of a great global disruption when economies are collapsing, insecurity is everywhere and some are even saying that globalization is going into reverse, it is a time in economic and educational life either to pare down our budgets, reduce our ambitions, turn in on ourselves, and keep outsiders at bay or to embark on a new course that can lead us toward a better place, a new high point of inclusiveness, security, and prosperity. Education is an essential part of the second path.

It is time, now more than ever, for a New Way of educational change that is suited to the dramatically new problems and challenges we are encountering. This New Way should build on the best of what we have learned from the Old Ways of the past, including those of the past decade, without retreating to or reinventing the worst of them. It should look abroad for intelligent alternatives and be especially alert to those educational and economic successes that also express and advance democratic and humanitarian values. It should attend to the advancement of the economy and the restoration of prosperity but not at the price of other educational elements that contribute to the development of personal integrity, social democracy, and human decency. It has to be concerned with the furtherance of economic profit yet also with the advancement of the human spirit.

## **Ten Years After**

This second edition of the *Handbook* contains chapters that show us the possibilities for positive change. The chapters within it come from leading researchers on educational change from around the world. What has happened to the field of educational change across this 10-year period that has brought us well into the twenty-first century? Have we seen great breakthroughs and synergies of strategy and impact along with impressive new results? Or, have educational reform strategies been just as much a part of the great unraveling of overconfidence and overreach as have the bursting bubbles of speculative investment and uncontrolled indebtedness?

As the editors, and as researchers of educational change in several countries over three decades, we believe that educational change and reform strategies and their accompanying research directions have become bigger, tighter, harder, and flatter.

These trends are evident in the grand designs of political reform strategies and also in the ways that professional communities in schools have developed and done their work. These very directions that have brought us to this defining moment of educational change, however, are not the ones that will get us productively beyond it, and so the second part of this introduction sets out some anticipated and alternative directions for the future.

## Bigger

Following years of frustration developing promising innovations that existed only as outliers and failed to spread, of watching pilot projects be replicated only poorly when their designs were then mandated across a system, and of seeing that early implementation of changes rarely turned into full-blown, widespread and effort-less institutionalization, educational reformers began to look at more coordinated system-wide designs for reform – and research money increasingly followed them. School-based and classroom-based change was out; large-scale reform was in.

The earliest efforts were most evident in England and to some extent in Australia and New Zealand in the early 1990s. This was partly a response to the incoherence and inconsistency of preceding decades, but also an ideological onslaught on the educational establishment, as they were called, of teachers and university education professors who were deemed to be responsible for the unfocussed approaches to educational progressivism that politicians and the business community along with an increasingly irritated public associated with the economic decline of the 1980s. The mechanisms of change to bring about this ideological shift were the introduction of market competition and league tables of performance between schools, a return to traditional models of curriculum and teaching through closely prescribed curriculum contents and standards sometimes accompanied by scripted and paced models of literacy and mathematics instruction, pervasive systems of educational testing that were tied to the curriculum basics and to the criteria for market competition, and intrusive systems of surveillance by external inspection. All these were linked with

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high-stakes consequences of public exposure, administrative intervention, and even enforced closure for schools that performed badly.

Some years later, these basic principles and practices were largely replicated in the US federal reform strategy of No Child Left Behind with its similar emphasis on test scores, competition between schools and other education providers, and severe consequences for schools that failed to meet the legislation's compressed time lines for improvement.

Research findings reflected mounting professional and also public dissatisfaction with the limitations of this large-scale model, in terms of overemphasis on basics, teaching to the test, concentrating only on those borderline students who could offer hope of quick test-score gains, problems of recruitment and retention among teachers and leaders, and a tendency for initial test-score gains to reach an early plateau. In response, while other reformers and their research-driven supporters stayed with the large-scale reform agenda, they also looked for other sources of inspiration to improve it.

The trailblazing work of New York District 2 under the inspirational leadership of Anthony Alvarado was a key influence here. Approvingly advocated by Elmore and Burney (1997), this model of district-wide change developed a clearer, stronger, and more pedagogically constructive focus on instruction backed up by high-quality materials, a network of high-quality instructional literacy coaches, a concentration on turning principals into instructional leaders who were also required to discuss their learning and difficulties together, a system of monitoring and inspection using administrative "walk-throughs," and a clear link to transparent test-score results.

Efforts to undertake direct transplantations of this model – like all attempts to clone educational changes exactly – proved disappointing as Mary Kay Stein, Lee Hubbard, and Bud Mehan have demonstrated on the attempt to implement the District 2 model in San Diego under conditions of lesser resources, greater scope, a different political climate, and shorter time lines (Stein, Hubbard, & Mehan, 2004). But principles and practices derived from District 2 started to surface among other large-scale reform advocates who wanted better and more lasting results, a closer connection to pedagogy and instruction and better ways to engage and support teachers and leaders in the change effort.

In England, there was a similar trend during the second term of the Blair government, when there was a concerted policy effort to personalize learning, build a stronger focus on enhancing teacher professionalism, make assessment and accountability more formative, and build stronger forms of collaboration between schools (Hopkins, 2007). So although Sir Michael Barber's (2007) delivery strategy tightened the national focus around literacy and numeracy, it also increased levels of support for teachers in terms of materials, finance, and technical coaching and paid increasing attention to leadership development, especially through the establishment of a National College for School Leadership.

In Ontario, continuing commitment to test-based educational accountability was supplemented by a range of system-wide initiatives that built capacity for improvement and provided professional support. Alongside the idea borrowed from England of making tested literacy and numeracy linked to political targets for improved performance the centrepiece of its reform strategy, the province added thousands of new teaching positions to reduce class sizes in the primary grades and "student success teachers" were designated in every high school to assure that each student would be well known and supported by at least one school staff member.

At its core, the Ontario strategy focused capacity-building at the school and district levels through the support of a Literacy Numeracy Secretariat and used achievement results as a nonpunitive but specific stimulant for further reform. Like New York District 2 and England, large teams of consultants and coaches worked alongside teachers with the support of quality materials. Teacher unions were allocated \$5 million to spend on professional development, successful practices were networked across schools, and underperforming schools were encouraged but not compelled to seek assistance from government support teams and higher achieving peers.

## Tighter

Proponents of large-scale reform models that also offer increased support, capacitybuilding, and professional involvement claim that in general, bigger has been better. Authoritative independent evaluations of the Ontario experience are just starting to emerge, but the evidence from England is uneven although the trends remain positive.

In any walk of life, the more that control and intervention are orchestrated from the top, the tighter the focus must become in terms of what has to be controlled. The wider the scope of action, the more that trust, decision-making, and responsibility must be devolved downwards – what is known as the principle of subsidiarity. There are simply never enough resources to permit close control of everything from above.

The answer to this conundrum among large-scale reformers has been to establish a tight focus for control and intervention. Hence, the growing consensus has been to concentrate policy efforts, curriculum development, instructional training, intervention strategies, and improvement plans on raising test scores and narrowing achievement gaps in the tested basics of literacy and numeracy (mathematics) along with secondary school examination results.

For a while, these strategies have increased consistency across the system, heightened the sense of urgency about rectifying underachievement and mobilized support to do so, and sometimes secured public reassurance as well as political credibility in relation to the standards agenda. Early improvements are rarely sustained, though, and their validity is often contested on the grounds that results are achieved by teaching to the test and by initially low test baselines through deliberately poor preparation and hasty implementation which is only then followed by training and support – so that what appears to be an improvement is actually a recovery.

The greatest problem of the tight focus on tested and standardized basics, though, is that the efforts and activity of teachers and schools concentrate overwhelmingly on these high-stakes areas and neglect developing a curriculum or a pedagogy

that will prepare students with the twenty-first century skills and capacities that are essential if we are to transform our economies and communities into creative, competitive, and inclusive knowledge societies. At the very beginning of the century, the Organization for Economic Cooperation and Development (OECD, 2001) advocated a shift in educational reform strategy toward developing these new competences and capacities. Hargreaves (2003) built on its argument and set out the case for knowledge society schools that emphasized the skills of creativity, innovation, flexibility, problem-solving, and teamwork that would fuel entrepreneurial initiative and that also promoted the skills and dispositions of inclusiveness, emotional development, community-building, and cosmopolitan awareness that are integral to social democracy. Wagner's (2009) book on The Global Achievement Gap also echoes the advocacy for twenty-first century corporate skills. A high-profile US Commission convened by the National Center for Education and the Economy (New Commission on the Skills of the American Workforce, 2007) that includes leading superintendents, CEOs, and two former Secretaries of Education also complains that America's obsession with tested, standardized basics is destroying its capacity to be economically creative and competitive.

The most assessment-obsessed Anglo-American nations, the United Kingdom and the United States, actually rank last and next to last on UNICEF's (2007) 21country list of child well-being. A formidably funded and influential review of UK primary education at Cambridge University (BBC, 2009) concludes that England's reform directions have stripped innovation, creativity, and the most basic needs of child exploration and development out of young children's curriculum as all teachers' energy has been targeted toward government tests. Even the UK government's own review body points to some of the same conclusions (BBC, 2009).

In the face of global economic collapse, the dubious path of narrow standardization is now one that only educational and economic ostriches and lemmings will follow as they blindly race over the edge of an economic precipice. The ironic effect of international interest in large-scale reform is that it has exposed how the countries and systems that have actually been most successful educationally and economically are ones that provide greater flexibility and innovation in teaching and learning, that invest greater trust in their highly qualified teachers, that value curriculum breadth, and that do not try to orchestrate everything tightly from the top (Darling-Hammond, 2008; McKinsey, 2007).

High performing Singapore emphasizes "Teach Less, Learn More" and mandates 10% "white space" for teachers to bring individual initiative and creativity into their teaching. Finland – the world leader on results in the Program for International Student Assessment (PISA) tests of sophisticated, applied knowledge in mathematics, science, and literacy, as well as on international ratings of economic competitiveness – avoids national standardized tests altogether and reaches high levels of achievement by attracting highly qualified teachers with supportive working conditions, strong degrees of professional trust, and an inspiring mission of inclusion and creativity (Hargreaves, Halasz, & Pont, 2008). The Canadian province of Alberta, which tucks in just behind Finland in international PISA rankings, has secured its success, in part, by partnering with the teacher's union to develop a 9-year initiative in school-developed innovation (the Alberta Initiative for School Improvement) that involves 90% of the province's schools.

Even in the Anglo-Saxon nations, the tide of narrow standardization appears to be in retreat. Many parents and teachers in England object to young children being the most tested in the world, that country's government has put an end to all standardized testing in secondary schools, and Wales has abolished national testing altogether up to age 14 (Hargreaves & Shirley, 2009). We are at the end of a decade of large-scale limitations. The question is, What might come next?

### Harder

The decade of large-scale reform has also been a decade in which evidence has replaced experience; hard data have pushed aside soft intuition and judgment. Data-driven instruction and improvement have become de rigeur elements of Anglo-American approaches to educational reform.

At first, data on student performance in examinations and standardized tests were used as crude ways to rank schools publicly and competitively, inform parent choice, pit the strong against the weak, and shame the poorest and weakest performers into pulling their socks up. Later, many countries worked at making the database more sophisticated. Progress measures were developed so schools could compare present performance to past achievement, and achievement results were contextualized in relation to the kinds of communities in which they were located. Schools could compare themselves against similarly placed peers and contact ones that were performing more strongly to access help and assistance. Many schools then started to use data to drive improvement internally. Departments were compared with departments, boys with girls, majority with minority students, second language learners with others, and so on – so that teachers could identify where they needed to concentrate their efforts and make timely interventions. Achievement data were also shared with individual students in regular one-to-one meetings to manage and monitor their progress and set goals with them for the future.

Data-driven improvement has become an integral part of the movement to develop schools into being professional learning communities (PLCs), where teachers use data and other evidence to inquire into their practice and its effects on students and make needed improvements together to address the shortcomings that they find. In the best or most advanced PLCs, a wide range of quantitative and qualitative data are used as a regular and effortless part of collective practice to inquire continuously into practice in the classroom, department, or entire school so as to keep improving in order to raise standards of achievement (Datnow, Park, & Wohlstetter, 2007).

While these developments have undoubtedly concentrated teachers' energy and efforts on identifying and responding to struggling students and groups of students who need their help the most, the enthusiastic adoption of data-driven instruction and improvement has also introduced some risks and drawbacks.

First, instead of merely respecting the value of data and objective evidence as opposed to subjective intuition, schools and systems have sometimes come to revere

it above all else. In sport, Lewis (2004) has demonstrated how the Oakland A's baseball team made the playoffs each year on a low budget simply by taking the statistic that most predicted season-long success – how often a batter reaches first base – as a basis for recruiting new players, even when those players did not intuitively strike coaches as being the most athletically likely prospects. By comparison, work on how organizations, including sports teams, achieve performance above expectations has pointed to inadvisable and ineffective ways that clubs push players to improve performance by setting targets for how many digitally tracked steps they take during a game, for example (the players simply cheat by taking more steps on the sidelines) (Hargreaves & Shirley, 2009). And Lewis (2009) again has put the other side of the evidence-based argument by highlighting one of the United States most successful pro-basketball players who consistently lifts team performance when he comes on court but whose highly complex and subtle contribution cannot be measured by any existing statistics. Sometimes the objective evidence is a good counter against intuitive judgment, but sometimes it is also insufficient, unhelpful, or just plain wrong. Experience and evidence need to be discussed in dialogue together without privileging one over the other.

Second, the quest for more and more detailed data to guide every action and decision can become obsessive and excessive. The origin of this approach is in the business practice of World Class Manufacturing which is actually a methodology of improving quality by disaggregating every part of the production process into miniscule, granular data and detail so that attention is paid relentlessly to improving every tiny aspect of that process. Numerous targets set yearly, monthly, and even weekly have red, green, or amber lights attached to them as indicators of whether or not they need real-time attention. Increasingly, frequent management of student progress and school improvement by constantly disaggregating data and targeting interventions in real time to underperforming groups or subjects represents the application of this philosophy to education. This data-driven intervention strategy can nip performance problems in the bud, but it can also divert teachers' attention and energy on to short-term tasks in easily measurable indicators of achievement and away from longer-term engagement with teaching, learning, and students within more complex sets of lasting relationships.

Third, while the best, most mature PLCs integrate and embed evidence-informed inquiry into the daily work of teaching across the curriculum, the imposition of top–down high-stakes assessments in narrowly defined basic areas such as literacy and numeracy drive many PLCs into taking a much narrower and more artificial focus. In practice, although the scope for PLCs is wide, most studies show that a majority of their activity concentrates on teachers looking at spreadsheets of student test scores together after busy days at work, then devising swift solutions to bring about the rapid improvements that will keep the forces of accountability at bay (Datnow et al., 2007; McLaughlin & Talbert, 2006).

While business and sporting organizations take metrics and indicators of improvement very seriously, there is little dispute among staff about the validity of those metrics in relation to what the organizations are trying to achieve – customer satisfaction, or the degree of stickiness that customers show in staying with a company's Web site, for example. In an age that needs to embrace innovation and

creativity, the test-score metrics by which educational performance is measured are not appropriate to knowledge society goals or to many valuable educational goals more widely. So the practice ends up being distorted to fit the cheap and available metrics of test scores, rather than metrics being designed which are widely agreed as being valid in reflecting the deeper and broader goals of high-quality practice.

## Flatter

In education, the work is increasingly flat. The aim is to narrow achievement gaps – to intervene so that girls catch up to boys, for example, and then so that boys can catch up to girls. These are worthy goals, but not when they are pursued relentlessly so that when any gap opens up, the immediate response is to close it. This creates a myth of the gapless school where all and any gaps, like orthodontically perfect and characterless smiles, are the target for immediate attention and elimination

In the 1960s, Young (1958) wrote a fable on *The Rise of the Meritocracy*. It depicted a society in which the goals of meritocracy had been perfectly realized – one in which everyone reached their potential and was rewarded accordingly. The result was that in a society which continued to value and reward occupations unevenly, everyone came to the often-depressing conclusion that what they got or didn't get was entirely what they deserved – a pure and incontrovertible reflection of the talents and abilities they had been allocated at birth.

# **Ten Years More**

In most of the Anglo-American group of nations, the last 10 years have been marked by high-stakes and large-scale attention to tested basics and secondary school examinations, in which objective test-score data drive increasingly detailed and granular efforts at improvement in an attempt to close all gaps wherever they appear. It is increasingly clear that these emphases cannot develop or deliver the essential learnings that are integral to the creative and innovative knowledge societies that are our best bet for extricating ourselves from the collapse of the existing global economy.

So what directions and developments might educational change policy, practice, and research take instead? We offer the following suggestions:

First, the collapse of the global economy will grab people's attention into adopting educationally driven strategies like those of Finland in turning round to become successful and competitive knowledge economies. Standardization will go into decline and innovation will emerge in its place. At first, this will appear as supplements to the existing diet of standardization – in after-school curriculum activities, or sheltered time for creativity or interdisciplinary studies within an otherwise standardized environment. But eventually, policymakers will have to concede that innovation and creativity require different, more flexible conditions of teaching, learning, and leadership than those that have prevailed in the managerial era of testdriven and data-obsessed educational reform. At the same time, as part and parcel

of the pursuit of innovation, evidence-informed decision making will result in the consolidation of high-yield instructional strategies. The development of the teaching profession will entail incorporating a growing body of sound practice and knowledge. Around these ideas we will need to learn once more how to spread innovation through networks, relationships, and interaction and to do this more effectively than in the 1960s and 1970s.

Second, at the end of the age of materialism and of "selfish" forms of capitalism (James, 2008), we will ask bigger questions about the goals of education – about how we are preparing the next generations. Technical preoccupations with narrowing achievement gaps in the tested basics and vague allusions to developing "world class schools" that are actually importations of the technically driven principles of World Class Manufacturing, will give way to goals that embrace the forms of innovation and creativity, and the identification of effective practices that are essential for advanced knowledge economies, and the virtues of empathy and community service that are integral to more "selfless" forms of capitalism.

Third, we will or should witness the decline of the district and of districtdriven reform. This will be replaced by districts fostering the creation and spread of promising practices. Teachers can only really learn once they get outside their own classrooms and connect with other teachers. This is one of the essential principles behind PLCs. Likewise, schools can only really learn when they connect with other schools - including ones outside their own immediate district. Many districts are too small to enable that learning. Others are hierarchical, bureaucratic, excessively politicized and controlling - with connections to other cities and districts being orchestrated and patrolled only by the most senior district staff who then filter what their own staff should be permitted to learn. A learning society requires schools that can connect with and learn from other schools beyond the confines and bureaucratic controls of their own districts. Without these developments, schools will become increasingly isolated and anachronistic - ill-equipped to prepare their students and themselves with the flexible learning and adaptation to change that are vital to twenty-first century economies. For this reason, face-to-face and virtual school networks that stretch across and between districts can and should become a key research and reform priority in the coming decade.

Fourth, the greater proportion of effects on student achievement comes from outside the school. Yet, being afraid to challenge parent electors about their practices and responsibilities with their children at home, policymakers have concentrated almost all their improvement efforts on the school alone – trying to improve performance within what is actually the lesser variable of influence on student achievement. The end of materialism, however, is now bringing community spirit and community responsibility back in. The highest performing nations like Finland, Singapore, the Netherlands, and Russia maintain high achievement by supporting their children in families and communities as well as in schools. Policy developments that combine district leadership with responsibility for other children's services in England are an attempt to move in the same direction. So are extended day schools, full-service schools, and community schools in other countries. In the coming decade, we will learn and commit to the idea that the strongest

and most effective schools are the schools that work with and affect the communities that affect them – schools where educational leaders are also effective community leaders. This will signal an end to the misdirected assumption that all responsibility for improvement falls exclusively on the shoulders of teachers and their schools.

Fifth, management that assists the delivery and implementation of policies will give way to leadership that can build innovative professional communities. Especially challenging here will not be the task of preparing new leaders but of converting existing ones who had been appointed and had learned to survive in conditions of competition and managerialism. How to change managers responsible for faithful delivery into leaders capable of inspiring self-initiated innovation and creativity will be one of the major strategic and research tasks in the era of post-materialism and post-standardization.

Sixth, as the boomer generation retires and moves on from teaching and leading, it will be replaced by the more direct and demanding generational successors of Generation X and even more of Generation Y – sometimes called the Millennial generation (Howe & Strauss, 2000). This generation, now in its 1920s, is already introducing ideas and incorporating technologies that are closer to the cultures of today's children and youth. But it is when this generation move into leadership in great numbers toward the end of this next decade that Millennial leadership styles – more swift, assertive, direct, team-based, task-centered, and technologically savvy – will finally bring about the classroom and organizational transformations that are necessary for twenty-first century schools. A key research priority in the coming years should be on the nature and needs of the Millennial generation in teaching and leadership within our schools.

Last, global conditions of economic collapse call for greater prudence in educational spending. With financial support for learning and teaching in jeopardy, it is demonstrably no longer prudent or sustainable to finance pervasive systems of standardized testing of all students across many curriculum areas, at multiple age points by a census. Effective corporations only test samples of their products in order to ensure quality control. It is bad business and a waste of profit to test more than this. We will need to grasp that this principle also applies to education as many countries like high-performing Finland and New Zealand already accept. The excuse that industrial products don't have parents but students do as a justification for testing everyone is already on the wane with parent opposition to testing in Britain already leading to its abandonment in Wales and reductions in its scope and impact in England. Standardizing testing by census is a financial and political indulgence we can no longer afford and one that electors are increasingly opposed to. It is time to research, develop, and implement strategies of assessment that are equally accountable but economically less expensive.

The coming era of educational change needs to be an era of reduced commitments to grandiose designs and granular micromanagement of top-down reform in favor of an age of innovation and inspiration in a post-materialist world where people are increasingly prepared to look to each other in building a more hopeful and innovative society together, rather than acquisitively and self-indulgently looking only to their own families and themselves. As the Millennial generation moves into leadership, it will eventually bring about these transformations almost naturally – it is the responsibility of the rest of us in the coming years to reflect on our past policy excesses of top–down control and prepare the ground in a post-materialist and post-standardized system and society for those who will follow.

# References

- Barber, M. (2007). *Instruction to deliver: Fighting to transform Britain's public services*. London: Methuen.
- BBC. (2009). *Primary education "too narrow"*: Retrieved February 20, 2009, from http://www.bbc.co.uk/2/hi/uk\_news/education/7896751.stm.
- Darling-Hammond, L. (2008). Teaching and the change wars: The professionalism hypothesis. In A. Hargreaves & M. Fullan (Eds.), *Change wars* (pp. 45–68). Bloomington: Solution Tree.
- Datnow, A., Park, V., & Wohlstetter, P. (2007). Achieving with data: How high performing schools use data to improve instruction for students. California: Center on Educational Governance.
- Elmore, R., & Burney, D. (1997). Investing in teacher learning: Staff development and instructional improvement in Community School District #2, New York. Washington, DC: National Commission on Teaching & America's Future & the Consortium for Policy Research in Education.
- Hargreaves, A. (2003). *Teaching in the knowledge society: Education in the age of insecurity*. New York: Teachers College Press.
- Hargreaves, A., Halász, G., & Pont, B. (2008). The Finnish approach to system leadership. In: Pont, B., Nusche, D., & Hopkins, D. (Eds.) *Improving school leadership* (Vol. 2, pp. 69–109). Case studies on system leadership. Paris: OECD.
- Hargreaves, A., & Shirley, D. (2009). The fourth way. Thousand Oaks, CA: Corwin Press.
- Hopkins, D. (2007) *Every school a great school*. Maidenhead, Berkshire: McGraw-Hill/Open University Press.
- Howe, N., & Strauss, W. (2000). Millenials rising: The next generation. New York: Vintage.
- James, O. (2008). The selfish capitalist. New York: Random House .
- Lewis, M. (2004). *Moneyball: The art of winning an unfair game.* New York: W. W. Norton & Company.
- Lewis, M. (2009). The no-stats all-star. *The New York Times Magazine*, February 15, 26–33, 56, 63–64.
- McKinsey & Company. (2007, September). *How the world's best-performing school systems come out on top*. Retrieved November 25, 2008, from http://www.mckinsey.com/ clientservice/socialsector/resources/pdf/Worlds\_School\_Systems\_Final.pdf.
- McLaughlin, M.W., & Talbert, J.E. (2006). *Building school-based teacher learning communities*. New York: Teachers College Press.
- New Commission on the Skills of the American Workforce. (2007). *Tough choices or tough times* – The Report of the New Commission on the Skills of the American Workforce. Washington, DC: National Center on Education and the Economy.
- OECD. (2001). What schools for the future? Schooling for tomorrow. Paris: OECD
- Stein, M., Hubbard, L., & Mehan, H. (2004). Reform ideas that travel far afield: The two cultures of reform in New York City's District #2 and San Diego. *Journal of Educational Change*, 5(2), 161–197.
- Strauss, W., & Howe, N. (1997) The fourth turning. New York: Broadway.
- UNICEF. (2007). Child poverty in perspective: An overview of child well-being in rich countries, Innocenti Report Card 7. Florence: UNICEF Innocenti Research Centre.
- Wagner, T. (2008) The global achievement gap. New York: Basic.
- Young, M. (1958). The rise of the meritocracy. Harmondsworth: Penguin Books.