Chapter 13
Policy-driven Research and Evidence-based Educational Innovation in Singapore

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In this chapter, we describe the way Singapore is pursuing the objective of promoting evidence-based policy and planning in order to comply with the vision of "a nation of thinking and committed citizens capable of meeting the challenges of the future, and an education system geared to the needs of the 21st century".

Context

In 1965 Singapore achieved independence as a postcolonial nation state, but it was more state than nation. In the 42 years since, Singapore has undertaken a distinctive and remarkable successful programme of national development, becoming not only an economic powerhouse in the Asian region, but an influential, prosperous, orderly, cohesive, multi-racial, global city and nation-state. In this endeavour, education has played a pivotal part. From the beginning, the state provided a free, well-funded universal system of public education: currently, education accounts for 4% of Singapore's GDP. In the same year, secondary schools had a retention rate of 95%. Between 1970 and 2004 literacy rates jumped from 68.9% to 94.2%; during the same period, the percentage of university graduates in the population increased from 1.9% to 12.1%. These achievements are also evident in exceptional performance in international assessments in Mathematics and Science. In the Trends in International Mathematics and Science Study (TIMSS) assessment for example, 4th and 8th grade students from Singapore consistently scored in the top place in Mathematics in 1995, 1999 and again 2003. In Science, 4th grade students were 7th in 1995 and 1st in 2003, while 8th grade students were 1st in 1995, 2nd in 1999 and 1st in 2003.

The recession of the mid-1980s made it very evident that the global economy was changing rapidly and the only way for Singapore to continue growing its economy, especially under the threat of equally attractive low-cost labour in other parts of the region, was to both upgrade its existing labour force and prepare a future labour force that is well-equipped to meet the challenges of a New Economy. Although the discourse

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around "knowledge-based economies" (KBE) and globalisation was not widely established then, Singapore was, in many ways, one of the first global cities and a midwife of the KBE – an economy where knowledge is constantly created and exchanged and production and services are based on knowledge-intensive activities.

Since the influential report of the Economic Committee (1986), *The Singapore Economy: New Directions*, which highlighted the need for creativity and broad-based holistic education to provide sufficient skill base for Singapore to move up the economic ladder into higher value industries such as high technology-based manufacturing, financial, banking and service sectors, policy makers in Singapore have wrestled with how to produce the kind of workers that would thrive in a KBE. Over the years, the accelerating pace of globalisation and criticality of graduating Singapore into a knowledge-based economy have brought together high-level committees, including the *Committee on Singapore's Competitiveness* (1998) and the *Economic Review Committee* (ERC, 2003) chaired by the current Prime Minister, to evaluate and make recommendations on critical issues that bear on Singapore's continued economic prosperity. These issues include the organisation of work associated with the knowledge economy, the changing capital formation requirements for the knowledge economy (to wit, "knowledge" capital, "imagination" capital, "emotional" capital, and "social" capital), and the growing inequality associated with the growth of such an economy (Brown and Lauder, 2003). In general terms, the ERC committed Singapore to the following macroeconomic policy settings:

- a *globalised economy* where Singapore is the key node in the global network, linked to all the major economies;
- a *creative and entrepreneurial nation* willing to take risks to create fresh businesses and blaze new paths to success; and
- a *diversified economy* powered by the twin engines of manufacturing and services, where vibrant Singapore companies complement multinational corporations (MNCs), and new start-ups co-exist with traditional businesses exploiting new and innovative ideas.

The Ministry of Education (MOE), too, has been strongly committed to the development of an education system that prepares young people for the worksites of the knowledge economy, promotes innovation and creativity rather than simply learning and memorisation, recognises and rewards a plurality of talents rather than a singularity of merit (namely, performance on high-stakes assessment), provides a broader diversity of choices and pathways for students in and through schooling, and generally prepares young people to successfully negotiate the more complex institutional demands of a rapidly globalising and "post-modern" world, and to do so without a loss of civic attachment or a clear normative framework.

The new policy settings were initially announced in the launch of the *Thinking Schools, Learning Nation* (TSLN) initiative in 1997. In the past decade since the launch of TSLN in 1997, educational policy in Singapore has been dominated at the broadest level by a vision of "a nation of thinking and committed citizens capable of meeting the challenges of the future, and an education system geared to the needs of the 21st century" (*www.moe.gov.sg*). Specifically, this vision has centred on the pursuit of five strategic objectives:

- Strengthen *capital formation* appropriate for a small but ambitious and highly successful knowledge economy through improved pedagogy, learning

environments and student outcomes (*Thinking Schools, Learning Nation; Teach Less, Learn More; Innovation and Enterprise; IT Masterplan 1 and 2, Engaged Learning*) across the curriculum, but permitting greater choice and diversity and recognition of diverse "talents" without sacrificing the major gains and achievements of the past, including national performance in international assessments (*e.g.*, TIMSS).

- Maintain *meritocratic forms of social organisation*, including the organisation of schooling, in order to promote elite recruitment into public administration and optimal allocative and productive efficiency in the labour market.
- Support and maintain *traditional social identities* but not at the cost of racial harmony through a variety of initiatives, including, in education, the bilingual language policy.
- Promote the moral and civic development, emotional well-being and capacity for full and effective participation in the institutional and community life of Singapore (*National Education, Social and Emotional Learning, Desired Outcomes of Schooling*).
- Prevent the growth of a permanent *underclass*.
- Promote evidence-based policy and planning.

The Singapore core research project

In pursuit of these objectives, in 2002 the MOE and the National Institute of Education (NIE) in Singapore announced the establishment of a Centre for Research in Pedagogy and Practice (CRPP) at the NIE with an initial five-year renewable grant of some SGD$49m (USD$31.8m).

Since its establishment, CRPP has pursued three primary objectives:

- To describe and measure patterns of classroom pedagogy (curriculum, assessment and teaching) in Singaporean schools.
- To measure the impact of pedagogical practices on student outcomes controlling for student characteristics.
- To identify opportunities for the improvement of pedagogical practice through a carefully designed and evidence-based intervention (or innovation) strategy.

Core Research Programme

For the first three or so years (2003-05), CRPP's research activity centred on the Core Research Programme. As Luke, Freebody and Lau (2003) indicated in their initial research proposal to the MOE:

> *"The Core Programme is the foundation for CRPP's research, providing a multi-dimensional baseline of descriptive, observational and intervention-based data. This programme employs a variety of design and analytic strategies, over short-, medium- and long-term time spans. The research addresses questions that are consequential for classrooms, schools and policy-making bodies." (p. 4)*

The Core Programme begins from an analytic map of the broad variable pathways from diverse linguistic/cultural communities and socioeconomic backgrounds to and through schooling. This will generate a picture of the social, demographic and cultural factors that shape school performance and outcomes and assess whether and to what extent these patterns fit the meritocratic ideals of the system (*Panel 1*). At the same time, the design focuses on the practices of pedagogy defined broadly to include knowledge, instruction and assessment: on both the everyday patterns of classroom talk and work, and on how system policies, school structure and leadership, teacher training, belief and attitude, curriculum, assessment influence and motivate teachers' work (*Panels 2, 3 and 4*). The design also expands the definition of educational outcomes from conventional indicators of achievement (year level retention, marks and grades, test and examination performance) to include student artefacts (*Panel 5*) and a broad array of social, economic, civic and psychological outcomes and life pathways (*Panel 6*).

The aim of the Core Research Programme, then, was to provide a rich description and comprehensive overview of pedagogical practices and student outcomes over variable levels of schooling in Singapore. In so doing, it attempted to capture the complexity of a system in a way that an experimental design, for example, cannot. Instead, methodologically, the resultant Core design is:

- *Multi-method*: The different panels enable the blending and triangulation of quantitative (survey, observational) and qualitative (observational, discourse analytic, interview) data.
- *Multilevel/hierarchical*: Samples of students, classrooms and schools are nested across panels, and linked to a comprehensive population database on achievement and socio-demographic background.
- *Cross-sectional and longitudinal*: Cross-sectional samples and multi-year repeated measures are combined.
- *Representative and generalisable*: Schools, teachers and students are selected from random stratified samples.
- *Multidimensional*: Multiple outcomes – cognitive and social outcomes – are assessed through high-stakes assessment results, conventional assessments in English and Mathematics, evaluation of student artifacts, and longitudinal surveys.

Table 13.1 briefly describes the six panels that together make up the Core Research Programme.

Table 13.1. Core Panel Design (2004-2005)

Panels	Sample	Key focus
Panel 1: **Student background/ achievement**	Entire school population from 1993-2002+ (500 000 students pa).	Modelling impact of SES, race and MT on student achievement in high stakes assessment in primary, secondary and postsecondary levels.
Panel 2: **Teacher and student survey**	Sample (n=19 000) primary and secondary students in random stratified sample of schools. Sample linked to Panels 3, 4 and 5 and linked to Panel 1. Sample of teachers (n=4 000) in same primary and secondary schools across all subjects.	**Students**: Modelling impact of classroom pedagogy on student achievement in Math and English controlling for student characteristics. **Teachers**: mapping pedagogical capacities and teaching practices. Also school climate and leadership.
Panel 3: **Classroom observation and coding**	2004/2005: Sample of 1 200+ lessons in Math, English, Science, Social Studies, Chinese, Malay and Tamil in 56 schools using the Singapore Coding Scheme.	Structure and distribution of classroom pedagogical practices with respect to knowledge, teaching and assessment.
Panel 4: **Discourse analysis of classroom interaction**	Audio-taping and selected video of lessons drawn from Panel 3 above.	Structure of classroom talk, patterns of social interaction, language patterns and knowledge construction.
Panel 5: **Analysis of student work**	Same sample as Panel 3 and 4 above.	Teacher assessment tasks and student work artifacts (worksheets, homework, projects) produced in response. Both evaluated for intellectual quality by expert teachers using rubric drawn from Panel 3.
Panel 6: **Longitudinal survey of student experiences, choices, pathways and attainments**	Three samples of students (Primary 4, Secondary 1, Postsecondary 1) (N=28 500) in 100 schools and postsecondary institutions tracked for an initial period of 3 years.	Longitudinal measures of life experiences, patterns of social participation and attainment and life goals, choices and pathways. Includes standardised assessment in English and Math.

Specific Focus Projects

Since the middle of 2003, CRPP has designed and implemented over 120 Specific Focus Projects (SPFs). Luke, Freebody and Lau explain (2003):

> *"While the Core Programme directly addresses the key questions shown above, the Specific Focus Projects are aimed at addressing questions about particular facets of classroom, school, and system practice, and at adding substance and detail to the findings developed from the Core Programme. Generally of shorter duration and with more specific curricular foci, the set of Specific Focus Projects will display a mixture of methodologies, analyses and time-spans." (p. 5).*

SPFs are both conventional research projects (using both quasi-experimental designs and design-experiment designs) and innovation projects generally focused on interventions in domain-specific fields – literacy, English language, Mother Tongue (Malay, Chinese, Tamil), Mathematics, Science, IT, Social Studies and Drama. In Mathematics, for example, during 2004 and 2005, CRPP funded a number of SPFs.

Evidence-based innovation programme

The "Intervention" Programme was intended to answer two general questions: "How can students' learning be enhanced? And how can students' application of knowledge to new task settings be enhanced?" (p. 7)

During the second half of 2005, CRPP staff began to review the research findings from the Core Research Programme and the Specific Focus Projects and identified, designed and began, at the beginning of 2006, to implement some 15 intervention projects within an intervention framework based on a number of key principles:

- CRPP interventions focus on:
  - promoting student engagement;
  - developing disciplinary and transdisciplinary understandings; and
  - developing valued social competencies (work, citizenship).
- By building teacher capacity in:
  - curriculum design;
  - assessment literacy (formative, authentic);
  - evidence-based "reflective pedagogy";
  - pedagogical realignment at the classroom and school level (*e.g.*, through "backward mapping", professional deliberation);
  - recognising, valuing and supporting student diversity.
- By promoting organisational change, specifically, the organisation of the school as a professional learning community:
  - professional reflection/deliberation:
    - individual;
    - collective (year level, subject);

  - evidence-based decision-making:
    - school-wide student database;
    - continuous formative assessment;
  - distributed leadership;
  - school-based, pedagogically focused and effective professional development.
- And by promoting appropriate forms of pedagogical alignment:
  - curriculum, assessment and teaching;
  - balance of tight and loose coupling:
    - tight coupling of enacted curriculum and assessment;
    - loose coupling of assessment and instruction/teaching;
    - multidimensional (including centrally moderated school-based authentic assessment).

These interventions will not be completed until the end of 2007 or later. While these are impressions and not hard data, we have been struck by a number of conclusions:

- *Teaching situations* are inherently problematic, messy, indeterminate, non-routine, uncertain, unstable, unique, reflexive, fluid, unpredictable, non-standardised and agentic…even in Singapore! The character of the teaching situation has important consequences for the nature of schools as organisations, for the regulation of pedagogical activity and for understanding processes of pedagogical innovation. However, in Singapore, compared to many other systems, the national high-stakes assessment system assures a tight coupling of pedagogy to system priorities, although it also constrains the opportunity for pedagogical innovation in schools.
- *Good teaching* cannot be bureaucratically scripted. While teaching can – and often is – viewed as a rational technical activity or "science" subject to general laws that can be developed into rationalised (pre)-scripted pedagogical (or practical) algorithms designed to achieve specified goals, such a view of teaching ignores the inherently messy and deeply agentic character of the classroom situation. It is thus more useful to think of good teaching as a complex reflective practice requiring continuous and ongoing inquiry, individual and collective reflection, and principled practical judgment in ever-changing classroom circumstances. Generally it requires significant "teacher change".
- *Teacher change* depends on a number of enabling factors. First of all, we have found that teacher change depends hugely on *teacher commitment and sense of agency*. This requires the active involvement and support of teachers in the identification of pedagogical challenges, solutions and strategies. Teachers have variable levels of *commitment* to, and ownership of, the process of pedagogical change. Many teachers in Singapore see little or no reason why pedagogical practices should change – after all, they suggest, Singapore has done exceptionally well in international assessment, the system is well funded and managed, pedagogical practices well tested and culturally appropriate, their own histories testament to the ability of the system to promote high levels of student

achievement and social mobility. Besides, pedagogical change is uncertain and risky and hard work technically and emotionally. Others recognise the need for pedagogical change but argue that significant pedagogical change is difficult in the current assessment environment. Teacher change is a matter of challenging and altering teacher beliefs and conceptual understandings, developing commitment to specific professional norms and processes, supporting the development of specific kinds of professional identities and attachments, and helping teachers cope successfully with the emotional and technical demands of teaching and pedagogical innovation. Second, teacher change is a matter of building *technical capacity* – developing content and pedagogical content knowledge, particularly at the conceptual level; developing skills in classroom enquiry and collaborative reflection and planning; and developing the capacity for informed and principled *pedagogical judgment*. Finally, teacher change depends on giving teachers ample *opportunity* to observe and practise desired pedagogical innovation and to be coached, mentored and otherwise supported in ways that facilitate sustained teacher change and to be supported by the school administration and colleagues in the school without fear of penalty if specific innovations fail to deliver desired results. Ironically, successful innovation depends on acceptance of risk, uncertainty and failure (OECD/CERI, 2004).

- *Organisational change*. Successful pedagogical innovation depends on *organisational and cultural change*, including changes in patterns of teacher belief, values and identities and the development of appropriate organisational supports (de-privatised practice, developed forms of classroom inquiry and knowledge production, collective reflection, and strong and distributed leadership).

Reporting: towards a knowledge management and innovation system

One of the key commitments of CRPP to the MOE is to provide timely and useful advice to the Ministry, and the teaching profession more broadly, on CRPP's research and intervention findings. We do this in a variety of ways:

- Annual technical reports to the Ministry of Education summarising CRPP's research and intervention findings.
- Preparation of policy-friendly summaries of research and intervention findings for senior policy makers and professional audiences.
- Annual presentations of research findings to the Minister and senior MOE officers.
- Annual presentations of research and intervention findings to principals and school staff involved in CRPP research and intervention projects.
- Periodic presentations to mid-level MOE officers, principals and teachers.
- Presentations at academic conferences (*e.g.*, we gave 42 presentations at the 2006 AERA meeting in San Francisco).
- Publications/chapters in peer-referred journals and books.
- Participation in policy conversations with senior MOE officers.

- Editorship of two peer referred journals (the *Asia Pacific Journal of Education* and *Pedagogies: An International Journal*).
- Publication of a professional journal (*SingTeach*) for the teaching profession in Singapore.
- Periodic presentations to NIE teaching staff and senior management in part to inform teacher education and professional development programmes.

For the last half dozen or so years, the OECD's Centre for Educational Research and Innovation (CERI), has suggested that contemporary schools, as they are currently organised, are not appropriately designed to successfully address the manifold and complex institutions demands of modernisation, modernity and knowledge-based economies. Contemporary schools, CERI argues, are not yet "Schumpeterian" institutions although the successful "schools of tomorrow" will be radically different institutions from today's schools (OECD/CERI, 2004, p. 11). Above all, the "schools of tomorrow" will need to be institutions that are especially adept and effective, not merely in transmitting knowledge to the next generation, but in producing, disseminating, applying and institutionalising knowledge that increases the effectiveness of contemporary schooling and promotes the development of knowledge societies. Given the pivotal role that knowledge production and innovation plays in organisational improvement, and the critical role that education plays in shaping the future of Singapore more broadly in a rapidly globalising world, not the least of challenges confronting the NIE in Singapore, and schooling more broadly in Singapore, is the development and institutionalisation of effective knowledge management and innovation systems in educational institutions of all kinds in Singapore.

In this task, CRPP/NIE can both be a model to other educational institutions and a strategic partner with the Ministry in the development of schools as knowledge management and innovation systems across schools at all levels.

Five areas have been identified below as a framework of research issues to improve our understanding of knowledge and learning processes in education and in a broader context of the knowledge economy and society. First, the way in which knowledge and learning are managed by modern organisation and in the education system. Second, ways in which this knowledge can be identified and measured, whether by the organisations themselves or by policy makers and the wider public. Third, specifically in education, how improved knowledge management may create organisations that become more effective at learning and innovating than they have been in the past. Fourth, the challenge to R&D systems within education to become a more effective part of knowledge management in this sector, potentially creating new structures that bring them close to policy-making and practice. Finally, the pursuit of a specific breakthrough in the knowledge used by education, by bringing together brain specialists and learning specialists to pursue a better understanding of learning processes. (OECD/CERI, 2000, p. 98)

Not the least of the challenges teachers, researchers and schools will face is a radical rethink of the relationship between teacher knowledge and effective innovation in classroom practice that will require teachers to abandon privatised forms of professional practice in favour of collaborative and reflective partnerships with fellow practitioners and researchers.

Conclusion

I want to conclude with a brief consideration of the problem of transfer: To what extent is the Singapore model of knowledge management and innovation "transposable"? Are there general lessons to be learnt?

In general terms, I can see no reason why the key features of Singapore's emergent system of knowledge management and innovation are not transposable to other jurisdictions. However, there are some particular features of the Singaporean context and its specific institutional arrangements that have functioned to support the knowledge management and innovation system in quite distinctive ways. For example, Singapore has a highly centralised system of school governance, resulting in a system of very tight coupling between instruction and policy, strong policy leverage over instructional practice, and secured by a powerful and complex (some would say over-determined) regime of bureaucratic, discursive, cultural, cognitive and performative controls over instructional practice.

The Singaporean educational system is also relatively small and only modestly differentiated institutionally, with considerable uniformity of pedagogical practice in Singapore across levels of schooling, subjects and streams. The institutional and governance relationship between NIE and the Ministry is unusually close and effective. NIE is the sole provider of teacher education and a major provider of in-service training in Singapore. The government has demonstrated an exceptional willingness to invest a considerable amount of public funds in research and innovation, and it does so because it is deeply committed to rapid and appropriate levels of capital formation that will enable it to negotiate the knowledge-based economies, and 21st century institutional arrangements more generally, effectively.

And finally, there is broad acceptance within NIE of the importance and value of accepting government funds for strategic policy-directed research at the expense of traditional solo research by academics following their own interests. These conditions are distinctive and important, but they are not, in my view, individually unique or collectively necessary for the creation of an effective system of knowledge management and innovation in other cultural contexts.

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René Bugge Bertramsen is the Deputy General Director for the Danish University and Property Agency within the Danish Ministry of Science, Technology and Innovation. Since 1999 he has been involved in reforms aiming at enhancing the quality of the Danish educational R&D system (such as the establishment of the Danish Pedagogical University – DPU – and the R&D centre Learning Lab Denmark). Mr. Bertramsen was responsible for the University Act of 2003 which gave Danish universities a new governance system, *i.e.* boards with external majority and employed rectors, deans and department heads. In 2006-2007 he was responsible for a merger process where government research institutes were integrated with the universities and a number of single-faculty universities were merged with larger multi-faculty universities, including the merger of DPU with multi-faculty University of Aarhus.

Robert Boruch, Professor, University of Pennsylvania (USA). Dr. Boruch is current co-chair of the Steering Group of the International Campbell Collaboration, and principal investigator for the Institute of Education Sciences What Works Clearinghouse, which is designed to be a central and trusted source of information on evidence about what works in education. Dr. Boruch is an elected Fellow of the American Academy of Arts and Sciences, the American Statistical Association, and the Academy for Experimental Criminology. He has received awards for his work on evaluation policy, randomised trials, and on privacy of individuals and confidentiality in social research. Dr. Boruch's academic background is in psychology, statistics, and mechanical engineering, with degrees from Iowa State University and Stevens Institute of Technology.

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Tracey Burns is a research and policy analyst for the Centre for Educational Research and Innovation, OECD, Paris. Previous to this she worked on social determinants of health across the life-span with Charles Ungerleider & Associates in Vancouver, Canada. As a Post-Doctoral Fellow at the University of British Columbia, Dr. Burns led a hospital-based research team investigating newborn infants' responses to language. Tracey Burns holds a BA from McGill University, Canada and PhD from Northeastern University, USA. She is the recipient of various awards and honours, including the UBC Post-Doctoral Fellowship, a student-nominated university teaching award, and the American Psychological Association Dissertation Research Award.

Thomas D. Cook is the Joan and Serepta Harrison Chair in Ethics and Justice and Professor of Sociology, Psychology, Education and Social Policy at Northwestern University, where he is also a Faculty Fellow at the Institute for Policy Research. He has a BA from Oxford University and a Ph.D. from Stanford University. He is interested in causal methods for the social sciences and in the joint effects of neighborhoods, schools, peers and families on how young people develop socially and cognitively. He is a Fellow of the American Academy of Arts and Sciences and the Margaret Mead Fellow of the American Academy of Political and Social Science. He has been awarded the Myrdal Prize for Science by the American Evaluation Association, the Donald Campbell Prize for Innovative Methodology by the Policy Sciences Organisation, and a Distinguished Research Scholar Prize of the American Psychological Association. He is the author or editor of 10 books and over 150 chapters and articles.

Jane Davidson is the Assembly Member for Pontypridd and former Deputy Presiding Officer for the National Assembly (Wales, United Kingdom). Since October 2000 she has been the National Assembly Education and Life-Long Learning Minister responsible for all aspects of education, training and lifelong learning. Educated at Malvern Girls' College, Birmingham University and the University of Wales, Jane has taught English, Drama and Physical Education. She is also an experienced youth worker and former Cardiff City Councillor. She was a member of the Arts Council for Wales and its Lottery Board, and Head of Social Affairs at the Welsh Local Government Association before her election to the Assembly. Jane has had a keen interest in education and youth work and is enjoying the challenges of the Education and Life-Long Learning portfolio.

Stephen Gorard holds the Anniversary Chair in Educational Studies at the University of York (United Kingdom), and directs the Centre for Research into Equity and Impact in Education. He is currently leading an Economic and Social Research Council (ESRC)-funded project promoting the use and understanding of randomised controlled trials in public policy (*http://trials-pp.co.uk/*), and was the originator of the ESRC's Research Capacity-building Network. He has published widely about the research process in social science, but his substantive work focuses on issues of equity, especially in educational opportunities and outcomes, and on the effectiveness of educational systems. Recent books include "Teacher supply: the key issues", "Adult learning in the digital age", "Overcoming the barriers to higher education", and "Schools, markets and choice policies".

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Maria J.A. van der Hoeven is the Minister of Economic Affairs (Netherlands). Maria J.A. van der Hoeven was born in 1949. She was trained as a primary teacher and taught at schools of home economics and junior secondary commercial education. Thereafter she was head of the Adult Commercial Vocational Training Centre in Maastricht and of the Limburg Technology Centre. From 1991 to 2002 Ms. Van der Hoeven was a member of the House of Representatives for the Christian Democratic Alliance (CDA). She has held a variety of social and cultural posts. Ms. van der Hoeven served as Minister of Education, Culture and Science from 2002 until February 2007. She was appointed as Minister of Economic Affairs in early 2007.

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Bill Kilgallon, OBE, has been the Chief Executive of the UK's Social Care Institute of Excellence since 2003. Prior to that he was Chief Executive of St Anne's Community Services from 1978 to 2002, an organisation he founded in 1971, which works with single homeless people and people with learning disabilities, mental health problems and alcohol and drug problems across Yorkshire and the North East. He was Chair of the Leeds Teaching Hospitals NHS Trust, the largest NHS Trust in the country from 1998-2002 and Chair of the Leeds Community & Mental Health Services NHS Trust from 1992-1998. Bill Kilgallon served as a member of Leeds City Council from 1979-1992 where he chaired the Social Services, Housing and Environment Committees. He has led independent inquiries, including one into alleged abuse in a local authority children's service and one into the management of an NHS hospital for people with learning disabilities.

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Johnny Nilsson is the Former Secretary of State for Education in Sweden.

Andrew Pollard is Director of the Economic and Social Research Council's Teaching and Learning Research Programme (*www.tlrp.org*), the UK's largest coordinated initiative for educational research. As a teacher, his career started in Yorkshire primary schools and he has worked in teacher education or research at Oxford and Bristol Polytechnics and the Universities of the West of England, Bristol, Cambridge and London. He is presently based at the Institute of Education London. Andrew Pollard has published widely, including work on longitudinal ethnography and analysis of social factors in teaching and learning, learner perspectives, and resources for teacher education and school practitioners. He is at present working on an analysis of learning experiences through secondary education.

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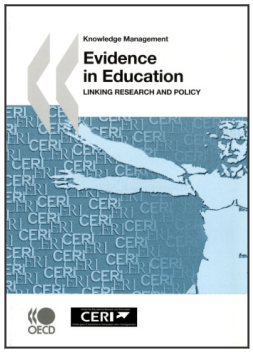

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