

Centre for Educational Research and Innovation

# Evidence in Education

LINKING RESEARCH AND POLICY



ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

## Foreword

The foundation for this volume was laid more than a decade ago in the 1995 OECD Centre for Educational Research and Innovation (CERI)'s report *Educational Research and Development: Trends, Issues and Challenges*. This report raised the question of why the role of governments in promoting and using educational research had emerged as a prominent issue.

Almost a decade later, CERI's work on knowledge management pointed to the key role of knowledge-based innovation in education. A series of country reviews of educational R&D confirmed that in most if not all countries the issues of effective relationships between research and policy makers, capacity-building within those domains, and importance of allocating scarce resources in the most efficacious manner remain as important as they were ten years ago.

The current project, labelled "Evidence-based Policy Research in Education", centred on a series of workshops held between April 2004 and July 2006 in the United States, Sweden, the Netherlands and the United Kingdom, which brought together key players in research and policy to exchange experiences and practices.

*Evidence in Education: Linking Research and Policy* brings together highlights of this workshop series. The publication looks at the issues facing educational policy makers, researchers, and stakeholders – teachers, media, parents – in using evidence to best effect. It focuses on the challenge of effective brokering between policy makers and researchers, offers examples from Canada, Finland, Singapore, and the United Kingdom, and presents the politicians' perspective.

Within the CERI Secretariat, this report was edited by Tracey Burns and Tom Schuller, with the assistance of Cindy Luggery-Babic and Delphine Grandrieux.

Barbara Ischinger,  
Director, Directorate for Education

## Chapter 5

# The Iterative Best Evidence Synthesis Programme, New Zealand<sup>1</sup>

Adrienne Alton-Lee,<sup>2</sup> Chief Education Adviser, Ministry of Education,  
Wellington, New Zealand

*In this chapter, we look at New Zealand's Iterative Best Evidence Synthesis Programme, which seeks to develop and use bodies of evidence to explain what works and why in education, with special attention on context.*

New Zealand's Iterative Best Evidence Synthesis (BES) Programme is a collaborative knowledge building strategy to develop a series of inter-linked syntheses that explain influences on diverse learner outcomes. Information about the programme can be found at <http://educationcounts.edcentre.govt.nz/goto/BES>. A series of syntheses focused on the major influences on student outcomes (family, teaching, professional development and leadership influences) has been progressively developed as part of medium term strategic policy work. The initial BESs were published in 2003. These informed *Guidelines* (<http://educationcounts.edcentre.govt.nz/goto/BES>) for subsequent BES development. Four more BESs have been developed via collaboration across policy, research and practice with the guidelines as a foundation.

The primary purpose of the programme is to support sustainable educational development whereby a whole education system and its communities strengthen a range of desired outcomes for all learners through iterative processes of shared knowledge building and use. The iterative approach is designed to be a collaborative tool and catalyst to intensify and embed the interplay of research and development (R&D) as a systemic lever for sustainable development in education.

BES has been valued by the New Zealand secondary teachers' union<sup>3</sup> for its challenge to what they call the "snake oil" myths and fads that have beset teachers. The work has been valued for the insights that explain what can make a bigger positive difference and lessen teacher stress. Some examples are: enhanced academic and social outcomes through strengthening student self-regulation, problem solving and conflict resolution

---

<sup>1</sup> Thanks to Dr Penny Moore whose work on the *Evidence Based Policy Project* informed the latter part of this paper (<http://educationcounts.edcentre.govt.nz/goto/BES>).

<sup>2</sup> Feedback and critique of this paper is welcomed at [adrienne.altonlee@minedu.govt.nz](mailto:adrienne.altonlee@minedu.govt.nz).

<sup>3</sup> Presentation by the Post Primary Teachers Association to the Minister of Education, Trevor Mallard, at Brackenridge Retreat to discuss implications of the first cohort of BESs, July 16-17, 2003.

skills, intensifying reciprocal peer supports for learning, and optimising school-home-community linkages in ways that dramatically lift the achievement of at-risk students (Alton-Lee, 2003).<sup>4</sup>

### The Iterative BES approach to knowledge brokerage

The BES development process requires of BES researcher-writers, iterative engagement with colleagues across educational policy, research and practice. The rationale is that use is embedded in development. A stronger evidence-base and wider ownership and use of synthesis findings are possible when a brokerage role is taken to BES development and use; not only between policy and research communities, but also with educational practice communities.

### Fit-for-purpose synthesis methodology

The Iterative BES Programme synthesises bodies of educational research that provide credible evidence about influences on a range of desired outcomes for diverse learners (*what? what magnitude of impact? under what conditions? for whom? why? and how?*). The approach uses a fit-for-purpose methodology that attends to the New Zealand context including indigeneity and the historic pattern of wide disparities in New Zealand's educational outcomes. The approach requires rigorous eclecticism, attention to theoretical coherence, and vignettes exemplifying findings in practice to be embedded throughout synthesis reports.

Part of the rationale for the focus on impacts on learners is the compelling evidence across studies that have linked educational goals, processes mediating learning and student outcomes, that well-intentioned, caring and experienced teachers and teacher educators can unknowingly teach in ways that have impacts counter to their own goals (Alton-Lee, 2006; Alton-Lee and Nuthall, 1995; Bossert, 1979; Doyle, 1983; Nuthall, 2004; Timperley *et al.*, 2007). The concern for impact on outcomes is similarly critical for well-intentioned policy settings and initiatives that can also have impacts counter to their goals and do harm, for example, policy initiatives related to drug education (Biddulph, 2003).

BES writers are required to draw upon systems thinking about the inter-dependencies and ecological relationships that influence effectiveness of any one part of the education system. For example, the BES focused on family and community influences (Biddulph, 2003) highlights the impact of poverty and health issues such as student hearing on educational outcomes, calling for a wider societal and inter-agency policy response to support educators in their work.

### BES development guidelines

One of the key challenges in BES development is the contestation of what counts as rigorous evidence amongst researchers especially when so much of educational research has been traditionally siloed within different paradigms and methodological traditions (Alton-Lee, 2004). In order to gain the confidence of the educational research and

<sup>4</sup> One small experimental study of four parent workshops designed by a teacher adviser enabled students achieving at 18 months behind their chronological age on average to almost catch up the gap, showing an upward achievement trajectory 15 months later. Students who didn't receive the intervention dropped even further behind still reading at an 8-year level as 10 and 11 year olds.

practice communities and their engagement in iterative processes of BES development and use, the Ministry of Education drew upon research expertise across the country. The process included not only research but also policy and teacher union representation to strengthen the approach and to get a high level of agreement about the methodology. The approach taken was to gain agreement about the purposes which then informed a fit-for-purpose methodology described in *Guidelines for Generating a Best Evidence Synthesis Iteration* (<http://educationcounts.edcentre.govt.nz/goto/BES>). This allowed for the beginning of a national, structured and transparent process of dialogue to inform BES development.

The *Guidelines* provide a critical resource to support the collaborative process and are themselves subject to iterative review. While international formative quality assurers have provided valued criticism and substantial suggestions for improving the *Guidelines*, they have been a useful and transparent tool to mediate the iterative process across different stakeholders. Professor Paul Cobb, formative quality assurer for the Effective Pedagogy in Mathematics/Pangarau BES Iteration (Anthony and Walshaw, 2007) commented: “The BES Guidelines are outstanding and are clearly grounded in the hard-won experience of synthesising research findings to inform both policy and practice” (Cobb, 2006).

### Rationale for a collaborative approach across policy, research and practice

The decision to take such a collaborative approach meant more time would be needed for BES development but laid the foundations for more impact. While such dialogue is challenging, Ginsburg and Gorostiaga (2003) explain the costs of not taking such a collaborative approach:

*Dialogue isn't necessarily more efficient, but it's more democratic and, therefore, more effective....Our preference is also based on the belief that in the long run dialogue and participation by a wide range of stakeholders produce better and more relevant educational research, policy and practice. ...Certainly, it may be easier – and, in that sense, more efficient – for researchers, policy makers, and practitioners in education to engage in action (or even in praxis) in isolation of members of the other groups. However, the decisions that are made and the actions that are pursued are likely to be less effective. This is the case not only because the quality of judgements may be lower but also because the activities of one group may detract from or cancel out those of other groups. (p. x)*

There is a mandate within the New Zealand public service for the kind of intensive engagement with stakeholders used in BES development. Eleven case studies of innovation in the New Zealand public service (Wright and de Joux, 2003) identified the following implications for effective and innovative policy development and implementation:

- Develop diverse and diffuse invisible colleges, partnerships, and collaborations across agencies, individuals and organisations.
- Exploit opportunities by consistent forward planning and engagement with stakeholders.

A recent review of evidence about the links between research and practice (Walter, Nutley and Davies, 2005) found that interactive approaches such as the development of partnerships and collaborations between researchers, policy advisers and practitioners facilitate the adaptation of research findings to local contexts. The reviewers note that

success is constrained by “the time and energy required to establish effective working relationships, differences in culture, goals, information needs, timescales, power, regard, systems and language, issues of project control and direction (p. 344)”. The Iterative Best Evidence Synthesis Programme is seeking to negotiate these kinds of constraints through agreed national *Guidelines*, strategic partnerships, power sharing and iterative processes that enable policy workers, researchers and educators to learn not only from emerging BES findings but also from each other.

### Iterative processes of stakeholder engagement in BES development

Educational leaders, educators and policy colleagues are able to influence the scoping and the search strategy for a BES development by raising issues from their experience that they consider significant.

This collaborative knowledge building process has forged sector and policy ownership and greater rigour, trustworthiness and usefulness in BES development but is not without its tribulations. For example, when BES writers share early and emergent work in progress then sector stakeholders have the chance to proactively engage with and provide feedback. If early work in progress is used as a political weapon then risk management is heightened in the policy context, researcher writers become vulnerable, and the iterative process may be threatened. The process needs trust to work.

### Strategy for use

BES has been instrumental in enabling teachers to recognise and reclaim the research on educational practice as their own. Because New Zealand has a highly devolved school-based management model, a partnership with educational leaders, particularly principals, will be critical to the potential of BES being realised. The Secondary Principals' Association of New Zealand and the Principals' Council have been proactive in supporting and contributing to the work of the Iterative BES Programme. However, New Zealand primary principals' conferences have featured some concerns and reservations about BES (Flockton, 2005)<sup>5</sup>. The New Zealand Principals' Federation supports the Leadership BES in principle but is concerned about the paucity of outcomes linked to research on New Zealand educational leadership and whether the BES will reflect the reality of school leadership.

The iterative process has allowed one venue for grappling with and addressing the fears of some stakeholders. But it has been when BES findings have fulfilled their promise for principals,<sup>6</sup> and word has spread amongst the networks, that remarkable shifts in student achievement, enjoyment of learning or other valued outcomes are occurring as a result of teachers and leaders using BES, that concerns diminish and the work is valued. Early findings from the Educational Leadership BES (Robinson *et al.*, 2007) emphasise how important pedagogical knowledge is for effective school leadership, particularly when integrated with a

<sup>5</sup> Flockton, L. (2005, July), Closing address to New Zealand Principals' Federation Annual Conference, Otago, New Zealand.

<sup>6</sup> Dr Lorna Earl is being contracted to develop a protocol for evaluating the sector-led developments in which principals have tracked marked improvements in student academic outcomes and enjoyment of learning linked to use of BES or particular approaches sourced through access to BES.

transformational approach to leadership that involves staff in decision-making. This is a challenge in New Zealand where the school-based management reforms of 1989 favoured a more generic management model (Task Force to Review Educational Administration, 1988).

The challenge is to communicate the synthesis findings in ways that facilitate their effective use by leaders, teachers and teacher educators (as opposed to a death-by-bullet-point approach). BES writers Graeme Aitken and Claire Sinnema (forthcoming) have been pulling together evidence about the ways in which research information can be more effectively presented to teachers.

Early findings from the *Teacher Professional Learning and Development BES* (Timperley *et al.*, forthcoming) are compelling. That BES includes an analysis not only of what facilitates the kind of teacher learning that made marked improvements in student outcomes, but also, analyses of interventions that led to student achievement deteriorating from what it had been before intervention. Such findings will be critical in policy development.

The findings highlight the importance of external and challenging expertise with strong pedagogical content knowledge to facilitate and support changes in practice; although poor expertise even from the research community can result in negative impacts on student outcomes. The findings indicate the importance of engaging teachers' theories and challenging discourses that are a barrier to improvements for some students. The findings highlight the importance of sufficient time for extended opportunities for teachers to learn and of the importance of using time effectively – particularly using diagnostic information about students' understandings in a teacher's own context.

### **Brokerage from a policy agency: constraints and opportunities where there is an evidence gap**

The Iterative Best Evidence Synthesis Programme carries out its brokerage role from a government agency, the New Zealand Ministry of Education. The Ministry of Education has a commitment to strengthening the evidence-base informing policy.<sup>7</sup> This commitment is critical within a policy context not only for the use of BESs but also for the integrity of BES development to ensure that the outcomes-linked findings produced cannot be altered for immediate political exigencies but are a trustworthy product transparently generated through an open process.

Perhaps the most substantial gap in the available evidence-base is that which explains the links between policy decisions, activity and outcomes for diverse learners, or explains the communication, organisational learning and other processes that mediate policy decisions and activities. Reid (Reid, 2003) could find no significant international or national body of academic research on the actual process of research integration with policy as seen from the policy advisers' viewpoint.

Court and Young (2003), in their study of fifty case studies in developing countries, found two critical factors influencing policy uptake of research to be:

- the nature of the *evidence* and whether the research was credible and relevant in terms of operational usefulness and problem solution; and
- the *social context* linking researchers and policy makers.

<sup>7</sup> The Ministry of Education has an explicit commitment to effectiveness and "Evidence-based Policy and Practice (p. 23)" within its *Statement of Intent 2006-2011*, Ministry of Education, Wellington.

BES brings strengths consistent with both of these findings. However, Court and Young (2003) found that political context was the most important factor affecting the degree to which research had an impact on policy.

A recent study of effective innovation within the New Zealand public sector (Wright and de Joux, 2003) found the following to have to been critical to success: sufficient resources; tireless risk management; senior management support, mandate, commitment, faith and trust; and management of diverse stakeholder interests, concerns and their tolerance for risk. Risk is a big issue in a democracy where evidence of what does and doesn't work can be a gift to the political opposition particularly if current government policy is inconsistent with the findings (Levin, 2005). The risks would be heightened if a government was not briefed early and its policy agencies were not proactive in integrating the implications of new findings into its work. Cranefield's (2005) study of knowledge transfer in the New Zealand State Sector found organisational factors (such as CEO support), knowledge-related factors (such as representation of knowledge and the strategy for staff engagement with the new knowledge), and gatekeeper-related factors to be critical to a shift towards outcomes-focused policy.

Court and Young (2003) found that policy uptakes were greatest where influencing and communication strategies were in place from the beginning of research programme. Kirst (2000) noted a discrepancy between the pervasive view that policy research either does not reach or is not used by educational policy advisers and the frequent citation or acknowledgement of policy research in the United States. Kirst noted that decades of research on issues in research dissemination help to explain this gap. Nutley, Walter and Davies' (2003) *Framework for Understanding the Evidence-into-Practice Agenda* helpfully suggests six research fields that may advance knowledge about "research utilisation". These are research on: diffusion of innovations, institutional theory, managing change in institutions, knowledge management, individual learning and organisational learning. Drawing upon this framework, adding in a consideration of information literacy, and conducting an interview study about the use of BES within the Ministry of Education, a small pilot study has been carried out to help inform our developing theories of action, communication strategy and strategic planning about policy influence (Moore, 2006). A strength of the BES approach in the policy context at this time is the use of relevant policy partners to collaborate throughout each BES development so that the iterative process and emerging findings feed progressively into policy thinking from the outset.

The single most compelling finding across the BESs is that effective R&D has enabled educational practice to make a much bigger positive difference for diverse learners. In the light of Coburn's (2003) analysis of the evidence of a history of failed educational reform, the magnitude of positive impact for, the responsiveness of, the sector ownership gained and the futures orientation of the most effective R&D are compelling. Often such R&D has gone through many iterations to create the kind of educational development that can work powerfully for diverse learners. As an initial step, through funding educational researchers and the collaborative and iterative processes necessary to undertake first iteration BES developments, BES is seeking to build the capability of the national research community to transform relevant but fragmented research knowledge into a more useful tool for both policy makers and practitioners. BES is also seeking to steer the research community towards a greater focus on informing educational development through R&D.



Each completed BES iteration is an invitation to researchers and educators to engage with the gaps in our knowledge base, the areas of need and the areas of most potential to contribute more deliberately to a cumulative agenda to strengthen educational practice. The vision is that the Iterative BES Programme will act as a catalyst for policy makers to fund, and researchers and practitioners to build, an integrated outcomes-focused research-and-development culture in education that enables systemic capability building, transformation and sustainable renewal.

There are significant challenges for building national capability in effective educational R&D and cumulative innovation. Such challenges arise particularly in the tertiary and initial teacher education sector where non-research linked market competition has been a recent New Zealand policy model. Education has a low profile in R&D in New Zealand (MORST, 2006). The forthcoming *Teacher Professional Learning and Development BES* demonstrates that New Zealand's most effective research-and-development in education compares relatively well internationally. But education jurisdictions are under-investing in R&D internationally (OECD, 2003) and where there is investment it may not be helpful, or can even be a waste of investment. In the OECD comparison cited above R&D has a much wider meaning to denote research in general so even these estimations are conservative for productive R&D. Despite recent initiatives New Zealand is under-investing in R&D even compared to relatively small investment in other OECD countries.<sup>8</sup>

While there are world-class and even internationally leading researchers in New Zealand education, tertiary academics in education overall, particularly in teacher education, are predominantly research inactive or the quality of their research is not judged to be high by their colleagues (Alcorn *et al.*, 2004). Because of the influential role of the tertiary sector in credentialising both professionals and knowledge, the follow-on effects for initial teacher education cannot be under-estimated.

Where educational research is of high quality, much research may be of interest to academics for its own sake, but not concerned with, or useful for, improving practice. Reward structures and hierarchies for academics can mitigate against rather than value as high status, productive R&D. If the BES strategy is to be more than a set of remarkable books frozen in time the challenge posed in the *2006 World Yearbook of Education* (Ozga *et al.*, 2006) "steering the knowledge-based economy ...research steering in national contexts" needs to be seriously and strategically addressed in New Zealand educational policy and research. Because of the critical role of education in society our future as a knowledge society will depend on it.

In conclusion, BES is a collaborative knowledge building strategy. The approach draws upon the expertise and engagement of policy, research and practice communities in education to develop and use bodies of evidence that explain what works and why in education with careful attention to context. The strategy is to use BES as a catalyst for inquiry, cumulative R&D and systemic change. The question of whether such a programme will be sustainable is an open one.

<sup>8</sup> "At the same time New Zealand invests far less in research and development of any kind than other developed countries, and has far lower R&D personnel per million population than Australia or Western European countries. New Zealand is successful educationally, but is, by R&D standards, not becoming a knowledge economy" (p. 89, OECD, 2003).

## References

- Aitken, G. and C. Sinnema (forthcoming), “Effective Pedagogy in Social Studies/Social Sciences/Tikanga-a-iwi: Best Evidence Synthesis Iteration”, Ministry of Education, Wellington.
- Alcorn, A., R. Bishop, C. Cardno, T. Crooks, P. Fairbairn-Dunlop, J. Hattie, A. Jones, R. Kane, P. O’Brien and J. Stevenson, J. (2004), “Enhancing Education Research in New Zealand: Experiences and Recommendations from the PBRF Education Peer Review Panel”, *New Zealand Journal of Educational Studies*, Vol. 39(2), pp. 275-301.
- Alton-lee, A. (2003), *Quality Teaching for Diverse Students in Schooling*, Ministry of Education, Wellington, <http://educationcounts.edcentre.govt.nz/goto/BES>
- Alton-Lee, A. (2004), “Improving Educational Policy and Practice through an Iterative Best Evidence Synthesis Programme”, Paper prepared for the April 2004 Joint OECD US Evidence Based Policy Research in Education Conference, Washington DC, <http://educationcounts.edcentre.govt.nz/goto/BES>
- Alton-Lee, A. (2006), “How Teaching Influences Learning: Implications for Educational Researchers, Teachers, Teacher Educators and Policy Makers”, *Teaching and Teacher Education*, Vol. (22), pp. 612-626.
- Alton-Lee, A.G. and G.A. Nuthall, with J. Patrick (1995), “Reframing Classroom Research: A Lesson from the Private World of Children”, in G. Capella Noya, K. Geismar and G. Nicoleau (eds.), *Shifting Histories: Transforming Education for Social Change*, Harvard Educational Review, Reprint series No. 26, Cambridge MA.
- Anthony, G. and M. Walshaw (2007), “Effective Pedagogy in Mathematics/Pangarau: Best Evidence Synthesis Iteration”, Ministry of Education, Wellington, <http://educationcounts.edcentre.govt.nz/goto/BES>.
- Biddulph, F., J. Biddulph and C. Biddulph (2003), “The Complexity of Community and Family Influences on Children's Achievement in New Zealand: Best Evidence Synthesis”, Ministry of Education, Wellington, <http://educationcounts.edcentre.govt.nz/goto/BES>
- Bossert, S. (1979), *Tasks and Social Relationships in Classrooms: A Study of Instructional Organisation and its Consequences*, Cambridge University Press, London.
- Cobb, P. (2006), “Formative Quality Assurance Report”, Vanderbilt University, Tennessee, 13 February.
- Coburn, C. (2003), “Rethinking Scale: Moving beyond Numbers to Deep and Lasting Change”, *Educational Researcher*, Vol. 32(6), pp. 3-12.
- Court, J. and J. Young (2003), “Bridging Research and Policy: Insights from 50 Case Studies”, Working paper 213, Overseas Development Institute, London.
- Cranefield, J. (2005), “Inter-organisational Knowledge Transfer in the New Zealand State Sector: An Investigation into Enablers and Barriers from the Gatekeeper’s Perspective”, unpublished research project submitted in partial fulfilment of a Master of Information Management, Victoria University, Wellington.
- Doyle, W. (1983), “Academic Work”, *Review of Educational Research*, Vol. 53, pp. 159-199.

- Flockton, L. (2005), *Insights and Oversights 1. Education Policy and Regulation: Evidence Based or Babble and Quackery?*, Column on the New Zealand Principals' Federation website, [www.nzpf.ac.nz/main.htm](http://www.nzpf.ac.nz/main.htm)
- Ginsburg, M. and J. Gorostiaga (2003), "Dialogue about Educational Research, Policy, and Practice: To What Extent is it Possible and Who Should be Involved?", *Limitations and Possibilities of Dialogue among Researchers, Policy Makers and Practitioners: International Perspectives on the Field of Education*, Falmer, New York, pp. 1-36.
- Kirst, M.W. (2000), "Bridging Education Research and Education Policymaking", *Oxford Review of Education*, Vol. 26(3&4), pp. 379-391.
- Levin, B. (2005), "Improving Research-policy Relationships: The Case of Literacy", in N. Bascia, A. Cumming, A. Datnow, K. Leithwood and D. Livingstone, *International Handbook of Educational Policy*, Springer, Dordrecht.
- Moore, P. (2006), "Evidence Based Policy Project. Iterative Best Evidence Synthesis Programme", Ministry of Education, Wellington, <http://educationcounts.edcentre.govt.nz/goto/BES>
- MORST (2006), *Research and Development in New Zealand: A Decade in Review*, MORST, Wellington, June.
- Nuthall, G. (2004), "Relating Classroom Teaching to Student Learning: A Critical Analysis of why Research Has Failed to Bridge the Theory-practice Gap", *Harvard Educational Review*, Vol. 74(3), pp. 273-306.
- Nutley, S., I. Walter and H. Davies (2003), *From Knowing to Doing: A Framework for Understanding the Evidence-into-practice Agenda*, Vol. 9(2), pp. 125-148, Sage, London.
- OECD (2003), *Knowledge Management: New Challenges for Educational Research*, OECD, Paris.
- Ozga, J., T. Seddon and T. Popkewitz (eds.) (2006), *World Yearbook of Education: Educational Research and Policy: Steering the Knowledge-based Economy*, Routledge, London, p. 170.
- Reid, F. (2003), "Evidence-based Policy: Where is the Evidence for it?", Masters Thesis presented in completion of MSc at Bristol University, [www.bristol.ac.uk/sps/downloads/working\\_papers/sps03\\_fr.pdf](http://www.bristol.ac.uk/sps/downloads/working_papers/sps03_fr.pdf)
- Robinson, V. (2007), "The Impact of Leadership on Students", *Educational Leadership: Best Evidence Synthesis Iteration*, Chapter 2, Ministry of Education, Wellington.
- Task Force to Review Educational Administration (1988), *Administering for Excellence* (Picot Report), Government Printer, Wellington.
- Timperley, H., A. Wilson, H. Barrar and I. Fung (forthcoming), "Teacher Professional Learning and Development: Best Evidence Synthesis Iteration", Ministry of Education, Wellington, <http://educationcounts.edcentre.govt.nz/goto/BES>
- Walter, I., S. Nutley and H. Davies (2005), "What Works to Promote Evidence-based Practice? A Cross-sector Review", *Evidence and Policy*, Vol. 1(3), pp. 335-363.
- Wright, A. and V. de Joux (2003), *Case Studies of Innovation in the Public Service*, New Zealand Treasury, Wellington, [www.treasury.govt.nz](http://www.treasury.govt.nz)

