Brief Comment in Response

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Thank you to the New Zealand Educational Administration and Leadership Society for your brokerage of academic engagement with the *School leadership and student outcomes: Identifying what works and why best evidence synthesis* (Robinson, Hohepa & Lloyd, 2009). Thank you also for this early opportunity to respond to the articles and critiques. Professor Robinson and Associate Professor Margie Hohepa will respond from their perspective in the next issue. Our purpose in the Iterative Best Evidence Synthesis Programme is to see the evidence used in ways that support educational leaders to make a bigger difference in improving valued educational outcomes for all of our children. The work of the BES Programme is a call to action. But as is highlighted in the BES, working harder or longer to make a bigger difference is not a sustainable way forward for our principals and others taking leadership roles in New Zealand schooling. Our leaders already work longer hours than their counterparts in many other countries. BES is a way of drawing upon selected evidence so that it serves as a resource about ways of working smarter rather than harder to make a difference. Dr Potaka highlights the importance of distributed leadership as a way of making change in ways that are feasible for New Zealand schools.

The evidence about making a bigger difference does not come from outside the experience of school-based leaders, or others taking leadership roles in education. Rather the outcomes-linked research creates a resource because it synthesises evidence about the real accomplishments of educational leaders. The BES explains what works in the day-to-day lives of school leaders. Because researcher accounts of practice are mostly named for the researchers, not usually naming those whose experience or activities inform the research, it is easy to miss the point that a BES is about explaining practice. Although the BES strategy is to value educational research as a resource for policy and practice, BES is very selective in the interests of systemic improvement. The huge literature about leadership theories that academics value, may or may not help in the practice of effective leadership. When we offer a BES to schools we want our stakeholder partners to know that they can trust that the knowledge will be useful. Visionary leadership is big in the literature but the BES shows that teachers were unhappy about a mismatch between leaders' walk and talk. Vision of itself was not enough to support positive change. When goal setting translated vision into something achievable student achievement lifted. For those who are seeking to engage with other perspectives we have commissioned NZCER to create a New Zealand Education Theses database which has almost 400 theses on the topic of educational leadership http://www.educationcounts.govt.nz/goto/BES and almost 10,000 New Zealand educational theses in all.

Most of the contributors to this issue have focussed on the big finding of this BES; that it is through promoting and participating in teacher professional development that leaders can have the most impact on student achievement. Given the asTTLe finding that a year's gain in business as usual teaching in New Zealand schools is .35 the .84 effect size for this leadership dimension is extraordinary; and shows the enormous significance of effective leadership. The finding emphasises also that it is through indirectly developing teaching that leaders make this difference. One of the contributors issues a caution about the effect sizes. Of course such an analysis only provides an indicator of what makes a bigger difference, but do not dismiss the effect sizes too easily. We brought in expertise from New Zealand, Australia and Canada to inform this analysis. The world's top ranked leadership journal the *Educational Administration Quarterly* gave the Davis Award to the first article reporting

this analysis for the following reasons:

> The synthesis of the literature to date provides an important conceptual framework for thinking about school leadership and the resulting unambiguously defined attributes of high quality instructional leadership set forth an ambitious agenda for future research. The committee members found the approach taken by the authors to deal with the problem of inappropriate aggregation across studies in the meta-analysis to be quite clever – we applaud their ingenuity and willingness to take this on to draw out new meaning from their data. For scholars, their study extends recent work on this question in interesting ways and provides guidance for subsequent studies. For practitioners, we envision the message conveyed in the paper regarding leaders' attention to promoting and participating in teacher learning creating some spirited conversations - maybe even change.
>
> The committee concludes that the paper moves the field's conversation about the impact of leadership forward significantly and it serves as an exemplar for the type of research approach it uses to make its substantive contribution. In terms of choice of topic, overall influence and impact for the field, and unique contribution and methodology, it is superior.[1]

I found the calls to action by Dr Skerrett around commitment to the revitalisation of Māori language and improvement for Māori in English medium compelling and the new BES speaks directly to these issues. The highest effect sizes across all of the school-home interventions in Chapter 7 of this BES were for the high impact interventions in the context of language revitalisation in Māori medium; those led by Dr Mere Berryman. The meta-analysis that informed Chapter 7 of the BES (see Figure 1 page 69) revealed that 12 of the 13 interventions that made the most difference to student achievement over multiple school sites (ES 1.81) were the Berryman led studies (for example: Berryman, 2007; Berryman, Glynn & McDonald, 2004, Berryman & Woller, 2008; Berryman, Woller & McDonald, 2009, & Berryman, Woller & Togo, 2008). This R & D is a stand out for effectiveness compared to interventions developed anywhere in the world. Berryman's work shows how using tried and tested R & D to strengthen whānau support for children's learning at the same times as developing teacher capability can accelerate language learning at an extraordinary rate compared to business as usual (See Table 1). This finding should occasion a profound shift in policy thinking about effective professional development. In her paper Dr Skerrett calls for stronger systemic and bottom-up leadership across the system to meet the needs of Māori learners. The new BES highlights the kind of smart tools that can support school based leadership in making some of these shifts in Māori medium but at this stage despite the years of research and development work carried out, and the compelling evidence of effectiveness so very few kura have had access to this opportunity. Coordinated action is needed.

1 Educational Administration Quarterly. (2009). Viviane M. J. Robinson, Claire A. Lloyd, and Kenneth J. Rowe Receive EAQ's 2008 Volume Year Davis Award. *Educational Administration Quarterly*, 45(3), 515-520.

Figure 1 Educationally powerful connections between schools/kura and homes/whānau (Robinson, Hohepa & Lloyd, 2009, p. 144; see Chapter 7 for discussion of meta-analysis findings)

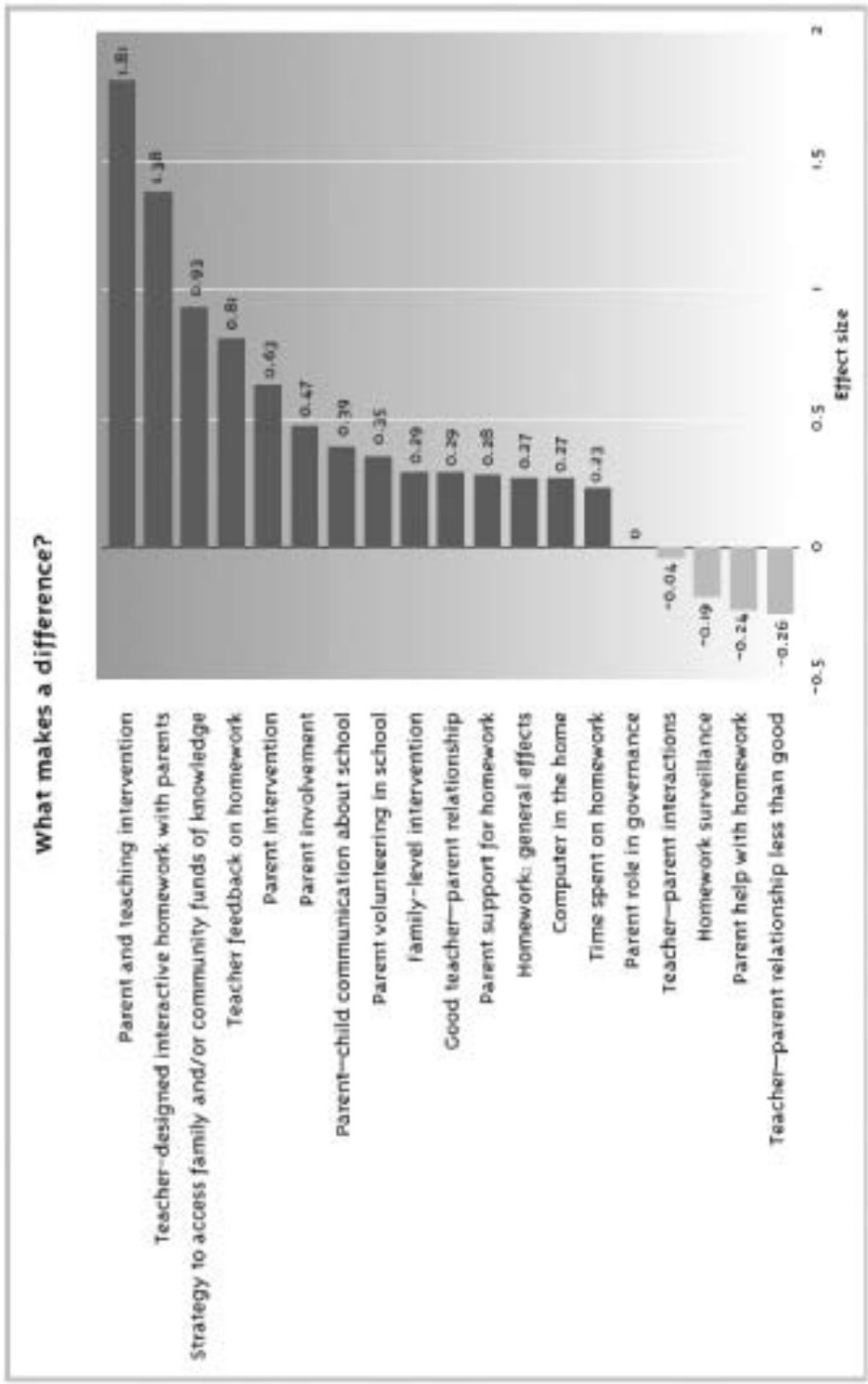


Table 1. High Impact Research & Development Approaches

Note: The statistic for 'impact' is an effect size, which is a standardised measure of the effect of an intervention.

An effect size of .35 is the mean for 1 year's achievement gain from teaching in mathematics, writing or reading in NZ in the asTTLe results.

Education Interventions with Parents/Whānau and Teachers

Focus	Intervention	Impact	Outcomes	Evidence	Time Investment	Materials Cost	Age	Capability Development	Spread of Use
Reading Pānui	**TATA** Phonological awareness intervention	1.72–4.48	Reading achievement in Te Reo Māori - helps emergent readers	Very strong	Effects shown over one term, 2 to 3 times per week	Tool available with crown copyright Low-cost reproduction	5–7	Smart tools developed, need professional leaders engaged to optimise R & D expertise critical to capability development and continuous improvement model	R & D Expertise Community participation Professional leaders and literacy specialists in and out of schools
Reading Pānui	**RĀPP** Audio tapes with elders reading in Te Reo Māori used at home and school	.52–2.75	Gains in reading levels in Te Reo Māori	Very strong		Uses existing texts and developed audio files	5–9		
Writing Tuhituhi	**Tuhi atu tuhi mai** Responsive writing between elders & students	.92–1.47	Improvements in writing Benefits for parents; English and Māori medium; transition and second language learners	Very strong	Effects over 10 weeks	Uses community and in-school expertise to model writing	6 to adult		
Reading Pānui	**Tatari, Tautoko, Tauawhi** Pause Prompt Praise – training for parents & tutors to support their children	.70–1.01	Gains in reading levels in Te Reo Māori or English Halts negative effects	Very strong	Varies. Effects shown over one term	Uses existing texts but relies on expertise	6 to adult		

Interventions with Parents and Whānau

Focus	Intervention	Impact	Outcomes	Evidence	Time Investment	Materials Cost	Age	Capability Development	Spread of Use
Reading	**Reading Together** Four workshop interventions with parents/Whānau using librarians as community partners	.43–2.22	Gains in reading Improved school–parent relationships Improved parent–child relationships Halts negative effects	Very strong	5 hours 4 parent workshops	Activates library resources Handbook + parent materials are low-cost	6–15	Smart tool Professional learning for school-based leaders Parent learning	Literacy specialists, school-based leaders & librarians
Maths Pāngarau	Schools develop mathematical games libraries to lend to parents and provide workshops re use of games	No effect sizes Highest gains	Mathematics achievement gains Improves school–parent and family relationships Halts negative effects	Mainly overseas Recurrent finding	Variable	High – parents can help in resource development	Primary and secondary	Smart tool development needed and R & D around process and community involvement + use of Te Reo and community languages	Professional leaders, mathematics education specialists and school-based leaders
Reading and Maths	Tertiary planning workshops for parents and students	Moderate effect Highest impact of any at secondary level	English and mathematics grades in US context	US findings promising	One evening seminar	Unknown, but modest given the impact	Lower secondary	Unknown until ‘smart tools’ are developed in NZ Existing practices in NZ but not formally evaluated	Careers Services/ school leadership/ community and tertiary involvement

Teaching Interventions

Focus	Intervention	Impact	Outcomes	Evidence	Time Investment	Materials Cost	Age	Capability Development	Spread of Use
Reading Comprehension Problem Solving Behaviour	**Reciprocal Teaching** Teachers learn to scaffold group work in which students summarise, clarify, question and predict meaning from text	.74	Comprehension Self-regulation Social skills Teacher time	Very strong overseas Some NZ evidence	Duration varies but gains evident after 6 hours of class time	Uses existing texts	7 to adult	Need tertiary researchers/ professional leaders engaged to develop, optimise and get R & D expertise	Professional leaders and literacy specialists in and out of schools
Cross-curricular Uses bilingual instructions	**Complex Instruction** Use of bilingual tasks and cooperative group training to support high achievement and improved peer culture in heterogeneous group work	1.06 varies	Higher order thinking Collaboration,. conflict-resolution skills Cultural identity – normalises use of Te Reo and Pasifika languages in task materials	Very strong in US and many countries but not NZ	2 years of development & trialling needed initially Effects gained after 3 months' use	Initial development costly	Varies – middle school focus but primary and secondary applications also	Substantial	Once smart tools are developed, extensive spread is possible

The challenge for English-medium is considerable. Further work has been done by Professor Richard Harker for the Iterative Best Evidence Synthesis Programme through a re-analysis of the Smithfield and Progress at Schools data for 60 New Zealand secondary schools. After controlling for socio-economic status of family and school Professor Harker showed effect sizes accounting for ethnicity effects in New Zealand schooling for Māori at -0.60 in science, -0.48 in mathematics and -0.43 in English (Harker, 2007).

Across four BESs now we have seen evidence of the kind of smart tools that could make a much bigger difference in creating environments in general education where the use of Te Reo Māori is normalised in bilingual tasks and resources. The high impact Complex Instruction (see Table 1) developed at Stanford University (for example: Cohen, et al., 1997; Lotan, 2006; 2007; Neves,1997) develops, with teachers, higher order bilingual tasks and carefully designed cooperative learning into business as usual accelerating the learning of both low and high achievers. Linguistic diversity becomes a resource. There is a role for research and development (R & D) leadership in education that helps to resource English medium education to support Māori learners to succeed as Māori. Complex Instruction has been found also to dramatically reduce bullying and racism in schools. This kind of innovative approach could make a significant difference to a schooling system where our primary children report bullying behaviours such as being made to do things they don't want to do, being kicked, made fun of, and excluded more frequently than their counterparts in all but one of 35 countries (see Chapter 2 of the BES for the challenge of strengthening valued social outcomes).

In her paper Dr Kate Thornton has offered a compelling and scholarly analysis of how the findings of this BES raise research, policy and practice questions that need to be addressed for early childhood education. She refers back to the embedded findings about early childhood leadership in the BES on professional development in this sector (Mitchell & Cubey, 2003) but provides an agenda for a pathway forward to better supporting and developing leadership for the crucial early years. Dr Cathy Wylie's paper also offers an innovative use of the BES and her analysis of NZCER's 2009 secondary national survey results in some salutary findings. As she explains in her article Dr Wylie's analysis revealed that when school goals really did guide teachers' work, teachers had sufficient time to work together to plan teaching, and meetings were used to discuss student achievement and improvement strategies, good teachers were retained. But only 19% of secondary teachers in the sample reported an embedded ongoing teacher learning culture of this kind.

Perhaps the critiques in this issue that most concern me are those by Professor Thrupp and Dr Potaka in that they seem to reject empirical evidence about what makes a bigger difference than business-as-usual in teaching based on the view reported that it is 'perverse' to think pedagogical leadership can lift achievement for children because 'the much lamented tail of achievement is the tail of poverty'. The strong link between socio-economic family status and student achievement is acknowledged up front in the BES (as it is in the Ministry of Education's differential school funding formula by decile). This evidence led the decision to have the first commissioned BES (Biddulph, Biddulph & Biddulph, 2003) address the issue of family and community influences on educational outcomes. That BES highlights the social and health policy and social justice issues that are critical for our children's well-being including nutrition, health (especially undiagnosed hearing loss), educational capital of families and cultural and material resource access.

Paying careful attention to the influences on the achievement of students from low socio-economic families matters. Levin (2009) points out the fiscal consequences of Professor Thrupp's and Dr Potaka's claims for resourcing schools:

> This debate is important because it has much to say to governments about where they should invest scarce resources. If schools are a prime agency for addressing inequalities then that is

> where additional energy and money should go. If, however, schools are less important than other areas of social policy such as housing or employment or early childhood, then it follows that the resources should be allocated to these other areas, possibly even being reallocated away from schools. Thus the question is highly consequential. (p. 184)

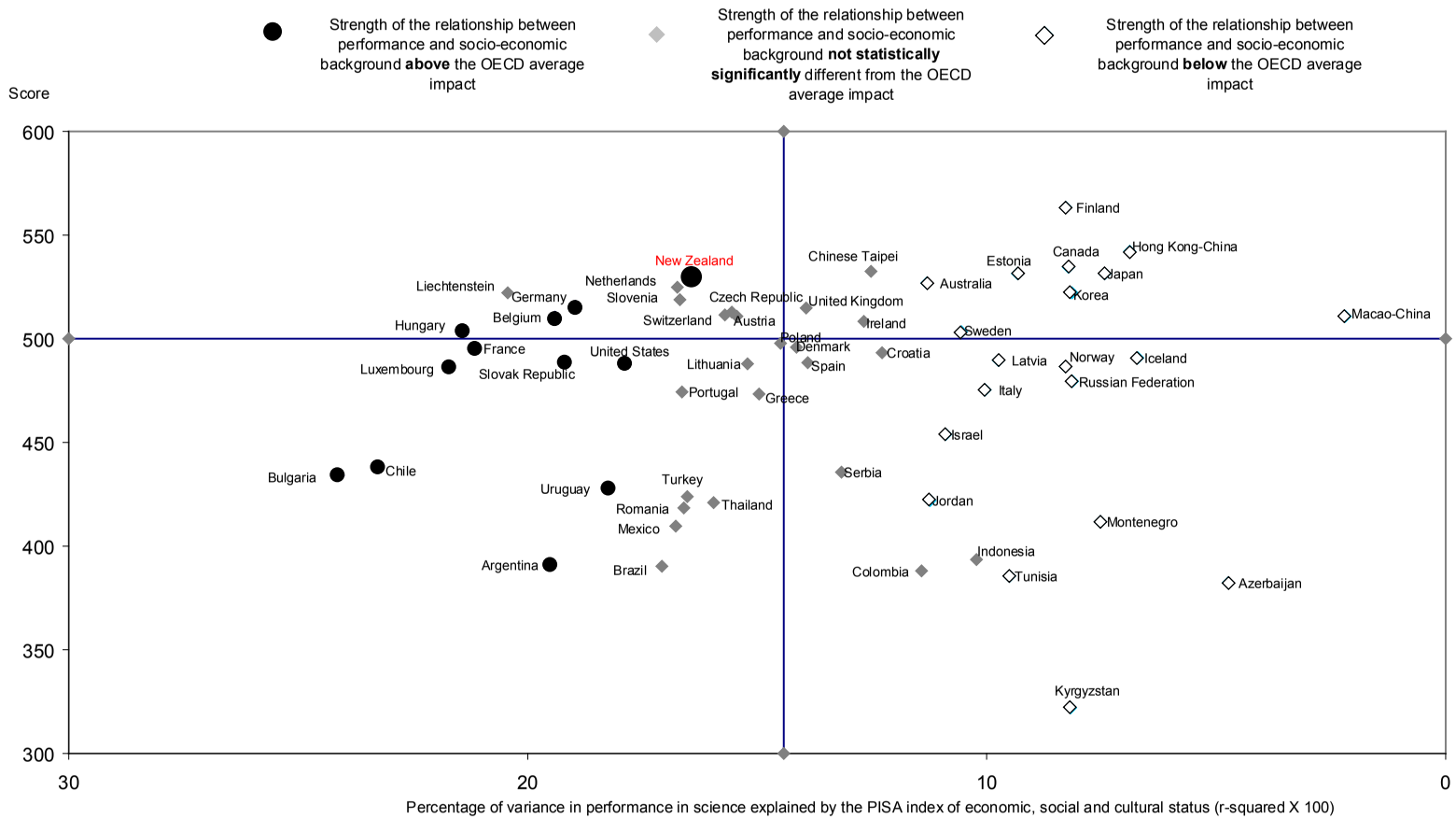
In his careful consideration of evidence and debate about child poverty and schooling Levin concludes:

> We have learned that while changing classroom practice is difficult, and by itself will not be enough, significant improvement in outcomes for poor children cannot occur unless there is change in teaching and learning practices. (p. 191)

There is no disagreement that wider social issues of child poverty must be concurrently addressed, but the Thrupp and Potaka critiques advanced in the contributions to this issue ignore and discount the evidence about how school leaders can make a much bigger difference for children from low socio-economic families. One of the most powerful examples in this BES is the Reading Together Programme – a programme that when carefully implemented by school leaders can in five hours with parents make more difference than a year of teaching. The difference really matters because current practice without such intervention has an ongoing negative effect on a range of achievement outcomes when parents inadvertently pressure their children (See Figure 1 and Chapter 7 of the BES). Reading Together is an intervention that was developed by Jeanne Biddulph (Biddulph, 1983;1993; Biddulph & Tuck, 1993; Biddulph, 2004), evaluated using a between and within school randomised trial, then refined further to be responsive to the needs of families and schools. This approach develops high relational trust with parents and whānau, supports them to understand reading difficulty levels and, makes reading together a source of enjoyment for families and children. Most importantly, with regard to socio-economic issues, the workshops connect parents and their children to a local library through a relationship with a librarian. This intervention counters a national trend for negative effects of parental help with (as opposed to the positive effect of parent support for) reading homework. In this way schools can resource families with hundreds of dollars of an existing community resource over many years. Case 5 of the BES and the study (Tuck, Horgan, Franich & Wards, 2007) that informs it documents the approach to using Reading Together by a principal, DP and AP resulting in a .68 effect size not only for target children but also their siblings aged 6 to 13 years in a predominantly Pasifika population decile 1 school. Such dramatic lifts in achievement reveal how knowledge forged through responsive cycles of educational R & D can resource families and schools.

The impact of family poverty on children's educational achievement and well-being needs to be addressed in all the ways, and to all the policy audiences, that can make a difference. But poverty is not the only cause of educational under-achievement. On page 58 of the *School Leadership BES* is the finding that New Zealand is an outlier in OECD countries for within school disparities across the decile levels. In a figure extracted from the recent PISA study of science achievement (see Figure 4.1 p 189 cited OECD, 2007) it is evident that socioeconomic status mediates educational achievement to very different degrees in different countries. The PISA analysis reveals that the strength of the relationship between achievement and socio-economic status in New Zealand is significantly above the mean impact for OECD countries. Other countries including Canada make a much bigger difference for their students from low socio-economic families. One of the big lessons learned recently is that systemic and marked upwards shift in reading achievement is possible across 5000 schools given an evidence-based approach to educational leadership at every level of the system (Levin, 2008).

Figure 4.10
Performance in science and the impact of socio-economic background
Average performance of countries on the PISA science scale and the relationship between performance and the index of economic, social and cultural status



Note: OECD mean used in this figure is the arithmetic average of all OECD countries.
Source: OECD PISA 2006 database, Table 4.4a

I believe that there is a moral issue as well as one of scholarship when school leaders and teachers get a recurrent and untrue message that they can't make any difference for the chances of children from low socio-economic families through their core work; especially when they get this message from those who receive the community's money to prepare teachers to teach their children. As is clear in the findings of the *Teacher Professional Learning and Development BES (*Timperley, Wilson, Barrar & Fung, 2007) if teachers and leaders in schools develop strong theories that they can't make a difference, then professional development will be a waste of investment unless there is the chance for a dialogue that opens up the windows of opportunity for teachers to try things differently. When that change happens effective professional development can make 2-3 years of difference in achievement gains over business as usual. When we really start to get a handle on both highly effective professional development and aligned ways of forging educationally powerful connections between schools and families then we will be able to make a much bigger difference for our children. The *Leadership BES* is a resource for addressing this challenge that has been forged for this purpose through a partnership across policy, research and practice. From the perspective of the BES Programme this is a shared challenge for policy, research and practice.

I wish to conclude by reiterating the Iterative Best Evidence Synthesis programme's call for action. Professors Michael Fullan and Ben Levin in their foreword urge us all to take active steps to ensure this new knowledge about what works has an impact:

> We believe that any school leader, system leader, or person with an interest in educational improvement or leadership will find this report stimulating and valuable. Certainly both of us did…The challenge for all partners in New Zealand (and beyond) will be to make sure that the lessons and implications of this synthesis leap off the pages and become part of the fabric of education. (Levin & Fullan, 2009, p.15)

Table 1 is just indicative of the fruits of R & D for working smarter not harder in schools to make a much bigger difference for our children. This BES is not just addressed to a school-based leadership audience. It concerns the national leadership of the research community. Don't let this resource languish in academic debate. Build on what we know to make a difference.

To those in the research and professional education community I ask that you continue to take the next steps in growing support for the work of school-based educational leaders and teachers through powerful and responsive research and development. Work with schools to provide knowledgeable expertise and create genuinely smart tools informed by cycles of responsive research and development. When school-based leaders turn to the universities for support for productive teacher and leader professional learning they need the kind of support that can make a bigger difference for all of our children, through working smarter not harder.

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