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Dilemmatic spaces: High-stakes testing and the possibilities of collaborative knowledge work to generate learning innovations

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This paper examines collaborative researcher-practitioner knowledge work around assessment data in culturally diverse, low-socioeconomic school communities in Queensland, Australia. Specifically, the paper draws on interview accounts about the work of a cohort of school-based researchers (SBRs) who acted as mediators bridging knowledge flows between a local university and a cluster of schools. We draw on Bernstein's (2000) concept of recontextualisation to explore the processes of knowledge mediation in dialogues around student assessment data to design instructional innovations. We argue that critical policy studies need to explore the complex ways in which neoliberal education policies are enacted in local sites. Moreover, we suggest that an analysis of collaborative knowledge work designed to improve student learning outcomes in low-socioeconomic school communities necessitates attention to the principles regulating knowledge flows across boundaries. In addition, it necessitates attention to the ways in which mediators navigate dilemmatic spaces, anxieties and affects/feelings in order to generate innovative learning designs in the current global context of high-stakes national testing and accountability regimes.

Keywords: knowledge work, affect, assessment data, recontextualisation, boundary crossing, dilemmatic spaces

Introduction

This paper aims to contribute to the literature on collaborative researcher-practitioner knowledge work designed to improve student learning outcomes in low-socioeconomic and culturally and linguistically diverse school communities. It does this in three ways. First, it examines university-school partnerships in the broader context of global education policies which emphasise high-stakes standardised testing as a key indicator of student learning attainment and teaching quality. Second, it shifts attention away from teachers as researchers to examine the collaborative knowledge work of school-based researchers working as mediators between two strongly bounded contexts – schools and universities. Third, it theorises knowledge flows across boundaries, as well

as the dilemmas and anxieties inherent in collaborative knowledge work around student assessment data in a policy context of high-stakes testing. Thus, this paper synthesises concepts from three divergent perspectives into a coherent theoretical framework to analyse the complexity of mediational knowledge work in a collaborative approach to addressing issues of poor student learning achievement in high poverty schools. It contextualises the micro-level activity of knowledge flows between schools and universities in the broader political policy context of high-stakes standardised testing and accountability regimes.

Global education policies: Standardised testing and reporting frameworks

Standards-based reform ... efforts [which] seek to ensure productivity by controlling classroom conditions and instituting repeated student assessments exist today in countries such as the UK, Ireland, Canada, Australia, South Africa, China, the USA, and others. (Smith & Kovacs, 2011, p. 201)

Teaching to the test pedagogy/curriculum

There are mounting concerns that the data-driven accountability regimes of standardised national testing programs are increasing educational inequity by reducing teacher professionalism, and narrowing school curriculum to a focus on test content via prescribed or scripted lessons. For example, scholars from the United States such as Au (2008) argue that high-stakes standardised testing alienates both teachers and students, and, in so doing, regulates modes of pedagogy, erodes or shrinks curriculum offerings, and negatively impacts on student learning (see also Barrett, 2008; Hursh, 2013; Smith & Kovacs, 2011). Within these policy frameworks, standardised testing gains ascendancy as a valid and reliable tool for assessing student learning, as well as individual teacher and school performance. Moreover, national standardised testing becomes a high-stakes game as allocation of rewards and punishments is increasingly

linked to test performance. Stern (2012, p. 391) adds that these neoliberal US education policies shift the blame of structural poverty and inequality through a ‘kind of selective amnesia’ onto teachers and schools. In other words, the ‘biopolitics of NCLB (No Child Left Behind) include individuating teachers and students into test scores and holding them as sole proprietors of their success and failure—no excuses’ (Stern, 2012, p. 391). Similarly, Levin (2013, p. 3) states that the shift to test preparation associated with NCLB has ‘undermined the broader goals and processes required for accelerated and enriched education for all’. Smith and Kovacs (2011) suggest that NCLB is contributing to teacher attrition, low job satisfaction, reduced opportunities for professional development, and reduced options for recruitment of new faculty associated with a declining sense of teacher autonomy and professionalism. These issues are particularly acute in ‘schools with high rates of poverty among the student body and schools with high concentrations of minority students’ (Smith & Kovacs, 2011, p. 212). Strong anti-NCLB sentiments exist in these schools because they are ‘most at risk for failing to make “AYP” [adequate yearly progress]’ (Smith & Kovacs, 2011, p. 219).

In the Australian context, Lingard (2011), Comber (2011) and Keddie, Mills, and Pendergast (2011) write about the adverse impact of the reductionist logic of high-stakes national standardised testing (NAPLAN – National Assessment Program – Literacy and Numeracy) on teachers’ work, particularly those teachers working in high-poverty areas. Specifically, Comber (2011) argues that teachers’ work is increasingly dominated by the collection, production and reporting of ‘evidence’ in the context of a ‘rampant standardisation’ movement. Similarly, Keddie et al. (2011, p. 76) argue that ‘greater externally driven forms of accountability and compliance attached to funding for schools’ have narrowed the meaning of school quality to ‘the measurement and comparison of student performance on easily quantifiable academic measures,

particularly literacy and numeracy'. They suggest that rigorous testing and accountability mechanisms 'have produced a "fetish" for standards and outcomes in schools' and undermined 'schools' efforts to produce high quality and productive learning environments' (Keddie et al., 2011, p. 76).

Achievement gap policy discourses

Smith and Kovacs (2011, p. 203) propose that although one of the main objectives of NCLB was the 'reduction of achievement gaps between white and non-white students, and poor and non-poor students', it may be exacerbating inequality between these groups. In addition, Lingard, Creagh, and Vass (2012 p. 319) suggest that:

Social justice policies in Australia have been rearticulated as 'closing the gap' on NAPLAN performance for Indigenous students and for improving school performance in low socio-economic status (SES) communities, with a focus in these schools on improving performance against 'like' or 'similar' schools.

Lingard et al. (2012, p. 326) argue that the semiotics of 'gap talk' in education policy may deflect attention away from the issues underpinning educational disparities, as well as the size and scope of the disparities, by focussing attention on improvement. Such a discursive strategy may naturalise educational failure by emphasising relative success and gains in learning and thereby accepting that genuine equality may not be achievable. This semiotic construction of disadvantage may work to place blame for poor learning outcomes on Indigenous students and students in low-socioeconomic communities, rather than on social, economic and historical factors of colonisation, poverty and ongoing racism. In addition, Lingard et al., (2011) argue that socially constructed categories such as LBOTE (Language Background Other than English) used in NAPLAN and MySchool¹ reportage are problematic. Such data categories, first, reproduce myths about ethnic learners, and, second, fail to redistribute specialist

English language resources to students in need. Writing about the Ontario, Canadian educational context, Martino and Rezai-Rashti (2013, p. 590) argue that the neoliberal forms of governance generated by policies that speak of ‘gap talk’ produce a politics of ‘misrecognition’. Such forms of managerial, performative policy governance, focus attention on the needs of particular categories of students, such as ‘boys’ underachievement’, ‘rather than a more thoughtful and nuanced consideration of race and class inequalities in performance gaps’ (Martino & Rezai-Rashti, 2013, p. 594). In addition, such forms of policy governance produce an ‘overzealous emphasis on school-based reform and the centrality of teachers at the expense of a more considered engagement with a broader societal politics of redistribution’ (Martino & Rezai-Rashti, 2013, p. 593), which considers factors such as housing, nutrition, health care, parental income, generational poverty, child-rearing, access of educational experiences outside of schooling, and legacies of racism/colonialism on educational underachievement. Martino and Rezai-Rashti conclude that policies to address educational inequality need to engage with a politics of recognition, that is recognise which categories of students need the most attention/resources in schools, as well as a politics of redistribution which address the complex ways in which inequality is maintained and reproduced in and outside of schooling institutions.

In summary, numerous critical policy studies across the US, UK, Canada and Australia report on the negative effects of high-stakes standardised testing, including the adverse impacts of such testing and accountability regimes on teacher professionalism and the learning outcomes of students in low-socioeconomic and culturally and linguistically diverse communities. In addition, critical policy researchers emphasise the politics of misrecognition generated by the global education ‘policyscapes’ (Martino and Rezai-Rashti, p. 607) of neoliberal discursive regimes and technologies of

governance² (performativity, managerialism, audit culture, high stakes testing, league tables). But is this the whole story about the enactment³ of standardising testing regimes and new accountability and compliance measures in schools and classrooms? Seddon (2003) argues that critical policy sociology research tends to operate at the big brushstrokes level, generally starting with the proposition that the neoliberal policy reform agenda will increase educational inequalities. Such research does not take into account the ways in which official policies are selectively taken up and enacted in the everyday practices of schools and classrooms. Nor does it take into account that neoliberalism is a 'thought collective' not a 'coherent ideology', and as such has 'a multiplicity of viewpoints and different national and transnational developments, borrowings and mutations' (Dean, 2012, p. 2). In addition, Stern (2012, p. 388) warns about the potential dangers of critical methodologies, which appear to generate knowledge via 'suspicion/paranoia'. A paranoid reading of current education policies automatically knows these policies as the products of a neoliberal market logic which in turn erode teacher professionalism and perpetuate structural inequality. Such paranoid readings, Stern (2012, p. 392) argues are in themselves performative, 'as a way of knowing', and also perform 'knowing affects on a reader'. The term affect is used here to illuminate the ways in which the 'intimate world of feelings intersects with political ideologies and institutions' (Stern, 2012, p. 388). One of the affects of critical policy readings, according to Stern (2012, p. 388) is 'obstructed agency', despair and hopelessness, indeed an 'end of politics' moment without recourse to action. This is because political action may begin and end with the performative act of policy critique – a political posturing which already knows education policies as well as their potential effects on schools.

Possibilities of working differently with assessment data

What are the possibilities for localised political action in improving student learning achievement in low-socioeconomic communities in the context of high-stakes testing regimes? Is hope possible? We attempt to answer this question ‘not from a bird’s eye view, but from somewhere more immediate’ (Stern, 2012, p. 388). We focus on the everyday interactions between researchers and practitioners trying to make sense of student assessment data in order to design instructional innovations to improve student learning outcomes in high-poverty communities. Specifically we focus on what Kathleen Stewart (2007, p. 2) calls the ordinary affects of an emergent present which cannot be explained by recourse to the shorthand language of the politics and policies of neoliberalism (see also Moore, 2012, 2006). Rather, Stewart (2007, p. 2) argues

Ordinary affects are public feelings that begin and end in broad circulation, but they are also the stuff that seemingly intimate lives are made of. They give circuits and flows the forms of a life.

In grappling with ordinary affects, we examine the dilemmatic spaces where participants held paradoxical and ambivalent feelings towards standardised testing regimes, accountability reporting schemes, and National Partnership Agreement policies (COAG, 2008; DETE, 2010)⁴, which tied school funding to specific performance outcomes. We use the term dilemmatic space to highlight both the relational and dynamic aspects of dilemmas. It is proposed that ‘people working in the teaching profession find themselves in situations in which there is often no right way of acting, but only a way of “acting for the best”’ (Fransson & Grannäs, 2013, p. 5). Whereas the term dilemma infers that individuals may have to negotiate problematic events or situations in teaching, the term dilemmatic space suggests that dilemmas are not unique

phenomena, but continuously present in everyday interactions. Indeed, Fransson and Grannäs (2013, pp. 8-9) argue that

dilemmatic spaces are social constructions resulting from structural conditions and relational aspects in everyday practices. The concept of dilemmatic space(s) makes it possible to approach what individuals construe as dilemmatic by adding space as a relational category to the concept of dilemma. Such an analytical move makes it possible to visualise how dilemmas emerge in a space between individuals and the context in which they find themselves. Within such a context, human relations, or more specifically, positioning and negotiation are seen as political actions.

The concept dilemmatic space makes it possible to analyse everyday researcher-practitioner collaborations in terms of the relational positioning and negotiation of actors across the institutional boundaries of universities and schools, and within the broader political context of high-stakes national testing and reporting policies. Recent market-based educational reforms which link performance on standardised test results to school funding are prerequisites for positioning not only teachers in dilemmas, but also the university researchers engaged in partnerships with schools. The structural challenges of these reforms ‘do not simply change the preconditions for teachers’ work but also affect how dilemmas are construed and how changeable processes of negotiation, positioning and power emerge and construe dilemmas’ (Fransson & Grannäs, 2013, p. 7). These powerful transformations of educational systems push school leaders and teachers to meet the changing expectations of district administrators and parents ‘without compromising (too much) professional knowledge, values and beliefs’ (Fransson & Grannäs, 2013, p. 6), while they and the entire schooling system are subjected to attacks.

It is within this global policy context that teachers in local schools negotiate and position themselves in the dilemmatic space of relational work with/against

standardised test data, and with/against university researchers. The spatial dimension of dilemmatic spaces refers to the shifting/emergent configuration of social relations within and between school contexts, specifically between teachers within a school, and between teachers and students, and between teachers, school leaders and university researchers. The concept of relational space signals ‘a positing of enlivened space – space as vital, material, immanent – that provides new spaces for living and new ways of being’ (Webb & Gulson, 2013, p. 53). Can the relational work of collaborative partnerships shift feelings of hopelessness, despair and obstructed agency, that is, particular types of teacher positioning in relation to standardised testing and reporting policy regimes in high-poverty schools?

Partnerships and processes in dilemmatic spaces

The theoretical discussion that follows about the work of a cohort of school-based researchers (SBRs) is informed by interview data collected from the SBRs⁵ themselves, as well as a cohort of education practitioners who worked on the collaborative research project (school district administrators and school leaders)⁶. We use the term school-based researcher to refer to staff employed on a university-administered research grant and assigned to undertake collaborative research-informed work⁷ in local schools. In this project, the main task of the school-based researcher was to work with school leaders and classroom teachers to generate new knowledge about student learning needs based on an analysis of assessment data, and to collaboratively design instructional innovations to improve learning outcomes. We use the term practitioner to refer to classroom teachers, district administrators, and school leaders (principals, deputy principals and lead literacy teachers) working in a cluster of primary and secondary schools.

Our goal in this project was to create a partnership in which professionals with different, but equally valuable, sets of expertise would engage in problem-solving dialogues around student achievement, teacher learning and classroom instruction. These dialogues were designed to be meaningful to all and contextualised to each school site. Student achievement data was gathered using a variety of measures, including diagnostic norm-referenced reading comprehension tests. Teachers met individually with SBRs to discuss data, examine patterns in student achievement within their classes and consider opportunities for developing innovations that might accelerate student learning. Teachers also met together in year-level teams and as whole-school teams, to discuss achievement data for all students in all classes and to reflect on current literacy instruction and share ideas for innovations. The partnership also worked collaboratively on designing, implementing and evaluating the effectiveness of teaching innovations on student learning outcomes.

The end-of-project interviews with school leaders emphasised the critical role played by SBRs in assisting them to understand their own school and classroom data and use this data to improve instructional design⁸. School leaders also emphasised student learning gains from the partnership project not only in the area of basic skills as measured by standardised testing data, but also on norm-based diagnostic testing scales, and on a broader range of educational goals including appreciation of poetry through ‘Poetry Slam’ events, novel reading through the ‘Reading Challenge’, and higher-order thinking skills such as critical literacy and problem solving through an SBR designed program titled ‘Navigating Thinking’⁹. Semi-structured interviews with SBRs¹⁰ concentrated on understanding their role as mediators engaged with knowledge flows and on interpreting research in the local context of schools and classrooms.

Interview data analysis proceeded through a number of stages including initial NVivo coding and then subsequent focus on one of the main themes recurring across the whole data set. The data analysis had a dual focus, examining both the ways in which the participants represented the work of SBRs in the project, as well as the ways in which talk about assessment data shaped the lived reality of the project within the schools (see Alexiadou, 2001, p. 52). Data analysis stages included: (1) familiarisation with the whole interview data set¹¹ (2) identification of the key phenomena under investigation; (3) a focus on those extracts dealing with assessment data – collection, representation and discussion/analysis tools¹², (4) collation of these extracts of data to compare and contrast participants' representations, (5) identification of the internal contradictions, distinctions and normative statements participants make about the phenomena of student assessment data (6) drawing on theoretical concepts to abstract the specific propositions about the phenomena articulated by the participants, (7) creatively crafting an account of the work of SBRs by weaving together threads from different interview extracts, (8) testing these crafted accounts against the 'head and heart' work of the team of researchers engaged in the intervention component of the project. In this final stage of data interpretation, we followed James' (2013, p. 574) suggestion to try to:

imagine the reasonableness of what people say, why they say what they do, however unreasoned it might at first seem. Such reasonableness has, therefore, to be imagined by, for example, situating particular narratives within the broader social context, by drawing on wider empirical and theoretical understandings, by digging deep into the repertoire of implicit knowledge that researchers themselves possess.

Entering and navigating the dilemmatic space

The end-of-project interviews with school leaders indicated that most of them embraced

the school-university partnership project, seeing it as filling an urgent need, because in the words of a District Administrator ‘the brutal facts were ... these kids weren't moving [improving in literacy achievement] and it was because we'd lacked an academic rigour in understanding and the skills to do what we needed to do’. The 2008 national standardised test (NAPLAN) score data revealed that in the region’s schools large cohorts of Year 5 and Year 7 students were not achieving at the benchmark when compared to their peers in the national cohorts. In addition, the gap between the national and local cohorts on benchmark literacy outcomes was greater at Year 9 than at Year 5. This data signalled that not only was literacy achievement significantly below the national benchmark, but that the gap in achievement outcomes progressively worsened as students proceeded through schooling.

At the time of the study, the schools were described on education websites such as ‘My School’ as disadvantaged on a wide range of social and economic indices. The majority of the schools in the region reported enrolments of between 450 to 600 students, with two schools reporting very high enrolments between 700 and 1,000 students. All the schools had high enrolments of Aboriginal and Torres Strait Islander students often between 10 to 17 per cent of the entire school population. In addition, many schools had high enrolments of Pacific Islander students, with one school reporting that Pacific Islander students comprised 60% of the entire student population. Similarly, all the schools reported that a large percentage of the student population did not speak English at home, with two schools indicating that English was a additional language or dialect for over 30% of the student population. The district was also a settlement area for refugees, and some schools reported that 4% of enrolments were new settlers from war torn countries in Africa. Many students attending the schools were from single parent families, with one school reporting a high figure of 29.05% of

students in this category. All of the schools reported that between 1–3 per cent of the student population were in ‘in care’ situations. Moreover, all of the schools reported that a high percentage of the student population needed additional learning support, with one school reporting 24% of students in this category. All schools reported attendance rates of approximately 90%, with some schools reporting a transient student population, with approximately 5% of students moving in and out of the school catchment area.

Unemployment was high in the local community, with some families experiencing three generations of unemployment. The area had poor public transport and a large number of fast food outlets.

While highlighting the need for partnership work to collaboratively tackle complex educational and social problems, the school leaders also recognised that engagement in partnership work was dependent on the availability of funds. At the time of its inception, the research-practitioner partnership project coincided with significant federal government investment in public or state schools by way of the Australian National Partnerships Agreement Policies. These policies provided targeted funding to schools in low-socioeconomic communities to lift learning outcomes as measured on NAPLAN results. The 12 school principals involved in the project were recruited under the Smarter Schools National Partnerships Program for Low Socio-Economic Status School Communities (DETE, 2010). This scheme introduced incentives to attract high-performance principals and teachers into the district, introduced greater flexibility in school operational arrangements, and strengthened external measures of school accountability (DETE, 2010; Australian Government, 2011). Most of the principals had extensive experience working in the local community context and articulated strong social justice principles in their vision of making a difference to student learning outcomes. The funding provided under the National Partnerships Agreement Policies

also assisted schools to employ additional staff, purchase resources and contribute to staff professional development, including releasing teachers from classroom teaching to participate in the project's collaborative discussions about assessment data and learning innovations. As Principal 4 said:

we were lucky with national partnerships because we could not have done that [disciplined dialogue around student data] without that money coming in. Because you can't do it any other way, you can't expect them [teachers] to do it before and after school and even then their non-contact [classroom] time to them is valuable. So you've really got to show them that we value it, you've got to give them that time off to sit down and really think about it.

In talking about the ways the university-school partnership project worked, Deputy Principal 2 said:

The real difference has to come with that partnership where you're working together in context. So it's no good taking us out of our context and preaching to us – and I think that people coming in and developing an understanding so there's a shared understanding of the environment, the students, the staff, that more - it's personalised learning for schools. I mean, it's personalising and learning for the school, and it's personalising the approach for the school. ... the project ... was very well established with key experts, with school-based researchers, but then that knowledge that we were providing a degree of expertise as well and it was that partnership and there was the – dialogue was going both ways. So the conversations were going both ways, they weren't just one-sided. I think that's what's made it really rich because it's been about the children in this class with this teacher there, as much as these are strategies for everybody to use

The emphasis here is on 'dialogue', 'both ways conversations', 'personalised learning', and 'shared understanding' in terms of a particular context of students, in a specific class working with an individual teacher. The relational work of the partnership thus navigated the politics of high-stakes testing and asked teachers to 'face themselves differently' (Webb & Gulson, 2013, p. 57), that is, to consider alternative ways of

relating to students, assessment data, and curriculum design. The relational configuration of the partnership meant that this work took place in schools, so that all participants' 'feelings of inadequacy' (Webb & Gulson, 2013, p. 57) could be negotiated. On the one hand, according to the school leaders, teachers were genuinely 'distressed', 'anxious', and 'quite worried about' the way the NAPLAN data was being collected, publically reported, and used to narrow curriculum and pedagogy. On the other hand, school leaders reported that teachers were concerned that the data did highlight what they already knew, that students in these schools were performing at significantly poor achievement levels. For many teachers in the schools, the NAPLAN data results set in motion a period of 'overwhelming grief' and 'genuine distress' in realising where the schools were positioned 'in the data ranks' (Principal 5). They wanted to make a difference to students' learning, but were worried that their efforts would not be captured by instruments such as NAPLAN, and despite what they did, students might not make gains in standardised test measures. Again, Principal 5 expressed it this way: 'We're talking about real children with real issues in reading and all of us embracing that we wanted to do something about that'.

At the same time, according to the SBRs, teachers were ambivalent about working with a team of university researchers on student data (see also Newman & Mowbray, 2012). We use the term ambivalent here to refer to the split emotions of love and hate, fear and desire, which are evoked with particular experiences such as loss and change (see Luttrell, 2003). In terms of the partnership project, teachers experienced loss and change in terms of classroom privacy as they were expected to share and discuss student data individually with SBRs, and collectively with whole teams of teachers. At the same time, the partnership processes meant that teachers would not be expected to individually and privately shoulder issues of low student achievement.

The issue for the SBRs' work thus became one of managing the feelings of anxiety experienced by participants in partnership projects. In some schools these were managed very well, with Principal 5 saying that the University Researcher and SBR managed to help teachers as they moved through a phase of 'overwhelming grief' to something 'quite positive' – a sense that the teachers had the 'power, with all the input that was given by the research team, to make a difference to make change'. However, this did not happen in all schools, with another principal, Principal 4, suggesting that some of the teachers found difficult conversations around data 'totally devastating', and that the 'staff at different times got really upset' because the group relationship with the staff had not been developed to the extent that the 'staff felt comfortable listening to the hard stuff'. She went on to say 'if you haven't got a good relationship with that staff and it feels threatening, then they're not going to take it and they become defensive'.

In their interviews, SBRs repeatedly talked about their efforts of building 'trust', 'respect' and 'relationships' with individual teachers in order to manage and work through the fears and worries that teachers had in relation to working in partnership. SBR 1, for example, said that when working with teachers, she sought to position herself 'first and foremost as a teacher'. Yet this positioning of oneself as a member of the teaching community also served as a way of managing SBRs' own fears and worries about not having enough or appropriate knowledge to contribute. When asked how she gained teachers' trust and respect, SBR 3, for example, said:

I think it's letting them talk about their classroom, their kids, their results. There's a lot of teachers in our project that have a negative view of the diagnostic assessment tool we are all using, and I know every time I go in, I know one particular teacher's going to berate me every time I sit down. And I just say 'Get it out, let's get it over with now. Let's go'. As soon as I explain why we're using this particular assessment tool, why we've chosen it, why the university researcher has chosen it for this project. 'Yes I know it's this, yes I know it's that, but it's only one little

piece of the jigsaw puzzle and so your professional knowledge about your kids and your program that you're doing is still central' – basically I think once they realise that and I think they know that we're not there in any way to criticise or to use any information that we gather – is not being used in any negative way.

All of the SBRs had to deal with teachers' concerns and fears about the use of norm-referenced assessment instruments and opening up their classrooms by sharing student assessment data. SBR-3's way of managing the dilemmatic space – a conversation ritual of listening to concerns and issues raised followed by reassurance – seemed to have the desired effect. This conversational strategy seemed to temporarily allay teacher anxieties not only about high-stakes standardised testing data, but also about opening up classroom practices. It generated a space for engagement in inquiry based collaborative work aimed at developing innovations to improve student learning outcomes.

Dilemmatic spaces: Ambivalence, anxiety

Working with contrasting emotional currents, both of others and of their own, thus emerged as an important focus of the SBRs' work. For as Principal 5 said 'Now something like this, if it's not handled well, can add to the problem causing people stress about their data. Why would you want to come and work in a school where the kids aren't achieving and you don't look good?'

In talking about her work with teachers in this dilemmatic space pregnant with fears, worries and anxiety, SBR 4 said that when offering advice, she always tried to take the perspective of the classroom teacher, because: 'you need to be able to understand and articulate whatever research it is in relation to reading comprehension for the classroom teacher who is exceptionally busy and is not necessarily prioritising it in the same way that you're prioritising this topic'. SBR 1 said that for her 'it all

depends on who it is that's sitting opposite you' and explained that when she designed and delivered professional development in schools then 'the thing that's consistent is that we respond to need and that you work with schools where they're at, as opposed to working on a formula'. The importance of being flexible and truly respectful of the knowledge and experience of the teachers was highlighted also by SBR 4:

Tailoring. I think it's really important to tailor rather than giving generic support in the schools or professional development, to really tailor it to what the needs are. ... Yes, it's customising ... To see where you can customise and literally meet the specific needs. ... and certainly to share with them, but it's a two-way thing where sometimes they will say, well that's not going to work here or this. So it's not that I have a preconceived set of, say, research-derived outcomes. I put, I think coming back to what I perceive to be really important, which is to customise and to be responsive to what the teachers are saying.

By highlighting that being responsive is a 'two-way thing' SBR 4 thus seemed to suggest that teachers needed to be involved in the process of inquiry and knowledge creation. Echoing the view of the Deputy Principal 2 quoted above, SBR 4 highlighted the importance of positioning herself as a partner to the teachers in this collaborative learning and inquiry process. She constructed a view of a relationship in which teachers need to be active inquirers and co-constructors of knowledge, not passive recipients of expert advice. In this relationship, teachers are not being led by the researchers towards new skills and knowledge, but rather they are the ones who direct their own learning and development. Yet in this relationship, it is not just the teachers who learn, change and innovate, but the process changes all parties engaged in the partnership. In this way, transformation and innovation is a collective endeavour and school improvement a collective responsibility.

Specifically, such relationship building needs to deal not only with the provision of new tools and skills for data collection, analysis and representation, but also with the

affective dimensions of this type of knowledge work at the boundary. Akkerman and Bakker (2011) define boundaries as ‘socio-cultural differences that give rise to discontinuities in interaction and action’ (p. 139). They contend that boundaries simultaneously connect and separate, in the sense of creating discontinuity between two related and mutually relevant fields that acquire their signification through their relationships to one another. In the partnership project the SBRs were the mediators of knowledge flows across boundaries. This was not a neutral role. Rather, SBRs selectively recontextualised knowledge from the research project and packaged it in specific ways which they deemed would be acceptable to school leaders and teachers in particular school contexts. It is through such recontextualising processes that SBRs constructed pedagogic discourses for consumption by schools. These pedagogic discourses were comprised of an instructional and regulative component (see Bernstein, 2000). Instructional discourses refer to what knowledge and skills are selected and packaged. Regulative discourses refer to the underpinning moral order constituted by models of the teacher, student and pedagogic relation. The regulative discourse is the dominant discourse shaping what knowledge and skills are appropriated, packaged, and transferred across contexts. Recontextualisation processes are ideology shaping and configuring processes. It is through these processes that school leaders, SBRs and teachers selectively appropriated and enacted policies relating to standardised testing, national partnership agreements, and accountability frameworks. Even within the team of SBRs there was disagreement about how to use statistical data to inform instructional innovations. For example, SBR 5 said that she had ‘reservations’ about using ‘statistical data’ as a ‘benchmark of’ student learning. These reservations were not only in relation to NAPLAN testing, which were consistent with the reservations held by most members of the school leadership and university research team, but also the norm-referenced test

used in the school to measure reading comprehension skills. SBR 5 explained how she managed these reservations/dilemmas in the rolling meetings:

Well I do the rolling meetings based - how they're based specifically on the data, their detailed observations of individual students in the class. Why or why not they think they've moved or progressed but then it will come back to what strategies might be used to support some of these kids to do better. ... But that comes back to what the data is telling us. So I'm not a heretic there. I do work closely with that. It's just I think, well I mean ONE, we agreed [this norm-referenced test] is just one of the many measures. They're finding that their NAPLANs shot up so that is a really, it seems to me, a strong indicator of progress.

Looking beyond and forward from numbers

In trying to understand how SBRs worked in partnership with teachers, the interview analysis centred on the types of pedagogic strategies and artefacts SBRs used in order to achieve effective data interrogation that could lead to instructional innovations. Five of the SBRs focussed heavily on the topic of working with the data during the interviews. When discussing this topic a key concern of the SBRs centred on building relationships between the university and the cluster of schools, as well as building relationships within the school between leaders (principals, lead literacy teachers) and classroom teachers. Relationship building was achieved through a number of activities such as: (1) the design and delivery of professional development activities, (2) professional learning conversations and (3) building professional learning communities. Professional learning conversations took place in different types of meetings, namely, one-on-one meetings with classroom teachers (rolling meetings); teacher professional development sessions (school-based, cluster-based), and leadership cluster seminars.

When talking about the data conversations, particularly in the one-on-one meetings that she had with classroom teachers (rolling meetings), SBR 2 said that her aim was to assist teachers with making meaning from the enormous volume of data and

to work from a base that data is not neutral – ‘is not just a number and that we actually can draw things from that and start making some inferences about why kids are scoring so’. SBR 1 equally said that understanding the purpose of data interrogation was highly important, and her aim was to work with the teachers around making sense of data.

The routines and the expectations around the sharing of data and talking about the data and developing a no blame, you know, this isn’t about blaming, this isn’t about teacher-bashing, this is about looking at data and looking at where kids are at on a developmental scale and seeing how we can move them forward. I think a lot of our work has been done successfully, where teachers come to the rolling meeting fully comfortable with looking at the student data and also taking on that shared responsibility, which is also one of the factors of the PLC [Professional Learning Community] is to say well, these kids go, I have them here and then so-and-so has them, so-and-so has them, but we need to work together if we’re going to move these forward. So when we look at our [data] wall, we’re all in this together and we need to have a look at our practices down through the region, to sort of say okay, irrespective of whether they’re in grade four, five, six, or seven, if this is what the data is saying their competencies are at the moment, and we want to move them along, then all of us together need to work to move this group of students along.

In her account SBR 1 refers to a data visualization tool – data wall – that was used in middle years’ group teacher meetings to map students reading scores in relation to each other and in relation to national norms. Data walls were generated in the project to focus collaborative inquiry around ‘real children with real issues in reading’. These data walls worked as visualisation devices that enabled teachers, school leaders and researchers to examine student performance against a common instrument, a norm-referenced reading comprehension test rather than the standardised NAPLAN test, and to make plans about what needed to be taught next and to which cohort of learners. The walls were large charts (2 x 3metres) constructed from black felt with columns representing developmental scales of reading and rows representing year level cohorts.

The aim was to visually represent the difference that the team could make to 'real children's' reading achievement and to counteract the negative impacts of standardised test administration and reportage on school leaders and teachers' sense of agency or capacity to effect change. The data walls were constructed and owned by the classroom teachers and used as one of many devices to facilitate discussion around student learning.

According to SBRs, the teachers initially resisted using this tool, because they were uncomfortable with opening up their classroom practices to professional scrutiny. However, they soon started to understand and appreciate the different perspective (i.e. graphical as opposed to numerical, group as opposed to individual) this map enabled them to have. The data wall thus became an important tool that the partnership project used not only within each school, but across the cluster of schools, so that there was a common language for talking about data. According to the SBRs, this tool allowed teachers to simultaneously engage with and distance themselves from individual students' performance and their own teaching practice. On the one hand, it made the statistical numbers come alive or be embodied, in that teachers were expected to place names next to the set of data for each student. This process humanised the numbers game of standardised testing and accountability regimes. On the other hand, it enabled teachers to develop some distance so that they could contextualise these numbers within wider social, economic and political contexts. Both processes enabled teachers to reassert their agency over data, their own classrooms, and the possibility of making a difference in the educational outcomes of students. Lead Literacy Teacher 7 put it this way:

And getting teachers to really look at their own data, because before that, we used to collect data for collecting data's sake, and nobody would look at it. Teachers would go, well, why would – and we never got anybody handing it in, because they

thought, well, why bother? When you're not going to look at it anyway, what are you collecting it for? They were right, because there wasn't – we weren't looking at it, we didn't know what to do with it, and now we do.

Furthermore, the emphasis of working together as a team of teachers also encouraged less of a focus on one's own individual teaching practices and approaching the improvement of students' learning as a collective endeavour and shared responsibility. SBR 1's metaphor of a mirror to refer to data is interesting in terms of how one member of the partnership team thought about reflective conversations. SBR 1 stated the project

has moved teachers into that place and saying data's not a scary thing. Data is like a mirror that says we look in there and we see in it and it shows us back where our kids' learning's at. If we can't look at that objectively and reflect on it in terms of our pedagogy and our practice, then we've got very little hope of moving them forward. If we keep sticking our head in the sand and saying it's somebody else's fault, it's not mine, or these kids are in the area, they're never going to learn so why bother? I think with the project has moved on and I don't think that I've had too much, I don't think I have changed anything in that. I think that was well and truly ingrained by the time I joined the project.

For just as a mirror allows looking at oneself from a perspective that would not be possible otherwise, so data collection via a common diagnostic reading comprehension tool and reportage by a visualisation wall allowed the space for collective disciplined dialogues around data. Douglas and Ellis (2011) talk about certain collaboration practices and tools as having 'an envisioning, future-oriented, and ideas-driven set of affordances' for they help

to initiate discussion about future activity. These open out ideas that test thinking and question practice, which can then potentially lead to changing practice [...] There is room for the agency of all of the participants in the system as they work together to envision a future for their joint activity (Douglas & Ellis, 2011, p. 473).

The data generation and visualisation tools thus did more than merely mirror classroom practices back to teachers. They mirrored the practices forward into the future by enabling a microscopic scrutiny of learning difficulties, and shifted the blame for these difficulties from the individual teachers and learners to the partnership team. It was the team of classroom teachers, lead literacy teachers, principals, SBRs and university researchers who in partnership were expected to collaboratively make sense of existing and new data on student learning as well as current classroom practices. It was the responsibility of this team to collaboratively design, review and revise learning innovations aimed to improve literacy learning achievements. The shift from blaming individual learners and teachers, or indeed whole school communities, was via the partnership approach.

Discussion

The first step in thinking about the force of things is the open question of what counts as an event, a movement, an impact, a reason to react. There's a politics to being/feeling connected (or not), to impacts that are shared (or not), to energies spent worrying or scheming (or not), to affective contagion, and to all the forms of attunement and attachment. (Stewart, 2007, p. 16)

What counted as 'an event, a movement, an impact, a reason to react' for the partnership project reported in this paper was, in the words of one of the school leaders, the 'sea of red results' produced in the NAPLAN standardised tests. This graphic representation of student literacy achievement as significantly below the Australian average prompted the district education administrator of a cluster of schools to implore university researchers to stop sitting on the sidelines and actively work with school leaders and classroom teachers in local schools to lift student learning outcomes. Was this call simply positioning researchers and teachers within the performative logic of

neoliberal education policies? Or could the ‘energies spent worrying’ collectively about student literacy achievement produce different lines of movement, trajectories of possibilities?

A number of researchers have highlighted the inherent paradoxes in education policies which simultaneously emphasise high-stakes testing, accountability regimes, and closing the gap on learning achievement. For example, Lingard et al. (2012, p. 325) highlight inherent paradoxes associated with policy governance by numbers. ‘People want to be counted so that they count, but many difficulties of counting arise, especially in relation to the creation of the category as the unit of counting’. In addition to the negative effects of policy governance by numbers/counting, there are positive affects in that statistical data has powerfully ‘illustrated disparities in areas such as health, incarceration, poverty and education’ and helped to ‘shed light on the debilitating effects ...of the politics of maldistribution and the politics of misrecognition’ (Lingard et al., 2012, p. 325). Policy by numbers, standardised testing regimes and new accountability measures do not simply have negative effects.

In addition, Levin (2013, p. 3) proposes that the Accelerated Schools Project ‘designed to provide children from educationally at-risk situations with enriched education that will accelerate their learning into the mainstream’ could demonstrate high learning outcomes in the narrow attributes measured in standardised tests, as well as in ‘a broad range of educational goals including the expansion of meta-cognition strategies’ and the full development of ‘communicative, artistic, analytic, interpersonal, behavioural, and citizenship skills’. Moreover, Smith and Kovacs (2011, p. 210) propose that despite raising many concerns about the uses and abuses of standardised testing regimes, teachers in their survey study ‘generally agreed (54.2%) with the assertion that testing helps schools improve student achievement’.

While we agree with the concerns raised by critical policy researchers about the negative impact of high-stakes testing and accountability regimes on teachers and students, particularly those positioned in low-socioeconomic school communities, we are also troubled that such critical work stops short of exploring the complex ways in which policy is enacted in local sites. We are also troubled by a discursive silence within critical policy studies, which has not engaged effectively with the distress and anxiety of educational practitioners whose ‘commitment’, ‘moral purpose’ and ‘desire to do good’ in making a difference to student learning (see Mockler, 2011, p.518) appears in our case study to have been heightened in a policy context of additional funding to address low educational achievement scores. Many of the school leaders in our case study schools, however, felt that they did not have the resources to engage effectively in instructional innovations without the assistance of the partnership team (see also Miller, 2011). Two research personnel were instrumental to the success of the partnership project. Firstly, District Administrator B, a white woman who was completing her postgraduate qualifications in public policy, was a partner investigator on the research grant, lived in the local community, was married to an Aboriginal (Australia’s First Peoples) man, and ensured that her children attended local schools. She was a passionate advocate of Aboriginal education specifically and improving the education of all students living in poverty. Secondly, University Researcher 1 and Author 3 had a long history of involvement in school improvement projects in Auckland, New Zealand and Chicago, USA and brought this knowledge and commitment to addressing educational disadvantage to the local Australian context. The partnership thus forged between the school district administrators and the university researchers to work collaboratively to address educational disadvantage set the context for the engagement of school principals and teachers in the project. Moreover, the funds

provided not only by the research grant, but also by the National Partnership Agreement policies, enabled the purchase of additional education resources and teacher release time to engage in collaborative inquiry problem solving work. Furthermore, a team of SBRs with the aid of mediational devices such as data walls encouraged teachers to individually and collectively interrogate evidence of student learning, identify groups of students who needed additional support, raise questions about instruction, exchange knowledge and ways of knowledge, and collaboratively design pedagogic innovations.

This paper has attempted to examine how policies, such as the National Partnership Agreement Policies in Australia, are strategically navigated and negotiated through collaborative problem-solving partnership work. It has sought to do this by exploring the anxieties, ambivalences and dilemmas of all participants engaged in such work. We do not claim that this partnership work uniformly produced significant results, namely improvements in student literacy learning, across all schools, or consistently within particular schools across the three-year period of the partnership. The aim of the partnership and specifically the collaborative inquiry model was to shift from a neoliberal individualistic focus to collective responsibility in addressing poor educational outcomes in disadvantaged communities. This constituted the core of the project. The aim of the collaborative endeavour was to interrupt the negative effects/affects of high stakes standardised testing regimes.

In order for the partnership team to consider the collaboration effective, students needed to make larger learning gains than those normally expected or evidenced in similar types of schools that were not a part of the project activities. In order to determine if such an impact existed, the partnership team tracked student performance over multiple years and used Cohen's *d* effect sizes to compare student performances with the norming sample on the diagnostic reading test [TORCH] and the state sample

on the national high stakes reading test [NAPLAN]. A Cohen's effect size standardises the difference in scores as a proportion of standard deviation and allows for meaningful comparisons to be drawn between samples and over time. Values up to +/- .20 are considered trivial, .21 to .39 are small, .40 to .59 are medium, and >.60 are large.

Tracking cohort performance on NAPLAN (Reading) from 2008–2010 and 2009–2011 and comparing effect sizes (Cohen's d) revealed acceleration in project schools when compared with others in the state. Students in project schools showed greater gains than those in other state (government funded or public) schools across the state. For example, when tracked as a cohort from 2008–2010, the students who started year three in 2008 and were year five students in 2010, demonstrated a NAPLAN Reading gain that was 27% greater than the gain made by other year five students in state schools. The gain for the 2009 cohort of year three students tracked into year five, showed a gain that was 44% greater than the gains experienced by students in state schools in general. A similar story is evident for year five to year seven cohort tracking. The year five cohort of 2008 gained 35% more than the state cohort over the same period, and the 2009 year five cohort, when tracked to year seven in 2011 demonstrated increased learning gains of 64% over their peers in state schools.

Table 1: Comparison of NAPLAN Reading Strand Scores (Cohen's d) 2008-2011

Reading Strand Gains	Year 3–Year 5 NAPLAN Gains Effect size comparison 2008–2010	Year 3–Year 5 NAPLAN Gains Effect size comparison 2009–2011	Year 5–Year 7 NAPLAN Gains Effect Size comparison 2008–2010	Year 5–Year 7 NAPLAN Gains Effect Size comparison 2009–2011
Partnership Project Schools	1.47	1.44	1.27	1.22
All State Schools	1.16	1.00	0.94	0.74

On the second 'in school' measure of student performance, TORCH (Test of Reading Comprehension), analysis revealed consistent accelerated growth patterns year on year (see Table 2). Compared with the expected rates of progress calculated from the

norming sample, project schools demonstrated growth that consistently outstripped that expected from the norming sample predictions. Only two year levels in two project years (Cluster 2's Year eights in 2010, Cluster 2's Year nines in 2012) failed to meet adequate yearly progress. In other project years and cohorts, the rate of progress was routinely double that expected and often more.

Table 2: Cohen's d for TORCH gains in project schools 2009-2012

	Cluster 1 (Effect size Cohen's d)					
	Y4	Y5	Y6	Y7	Y8	Y9
2009	0.82	0.56	0.36	0.21	0.76	n/a
2010	1.03	0.60	0.75	0.50	0.36	0.52
2011	0.73	0.45	0.51	0.52	0.59	0.46
Half year 2012	0.64	0.34	0.39	0.16	0.24	0.39
	Cluster 2					
	Y4	Y5	Y6	Y7	Y8	Y9
2010	1.28	0.94	0.76	0.82	0.21	n/a
2011	1.23	0.69	0.70	0.77	0.44	0.77
Half year 2012	0.60	0.27	0.47	0.31	0.26	0.16
	Expected TORCH annual gains					
	0.58	0.45	0.32	0.11	0.24	0.41

2009 n students =1008; 2010 n students =1529; 2011 n students =2339; 2012 n students =2586

Taken together, these analyses of student data suggest significant effects for the intervention in schools that extends beyond teacher and leadership learning to impact the reading proficiency of students in project classrooms. These gains in student learning were recognised through the receipt of regional and state awards for excellence to project schools. There was also some evidence of wider impact outside the specific classes and teachers involved in the project, with students in early years showing high scores on standardised literacy test data and deeper engagement in reading. At the same time, there was considerable variation between schools and within classes in each school. We attribute some of this variation to the high rates of teacher turnover in the schools, which is a characteristic of schools in hard-to-staff low socio-economic communities, to the different levels of engagement of school leaders with the project,

and to the different capacities of classroom teachers to engage with the collaborative inquiry pedagogic work, and to the competing and contradictory demands given the myriad of other policies currently enacted in these schools.

At the March 2012 audit point there were 121 teachers involved in the project, with 98 completing a reflective survey administered on an iPad device, with a response rate of 81%. Of those who responded, teachers reported increases in: (1) capacity for working with evidence to enhance classroom literacy instruction (92%); (2) knowledge about how children learn to read and think (93%); and (3) confidence as teachers of literacy (89%). Specifically, teachers reported that they were (1) more skilled in interpreting and using data from the assessment of reading comprehension (92%); (2) more effective in selecting teaching and learning strategies to match the needs of students (94%); and (3) more capable of making clearer links between teaching goals and classroom activities (94%). Most importantly, teachers surveyed said that increases in students' reading comprehension levels were a result of changes that they had made to literacy instruction in their classrooms (85%).

In this paper, we have explored the complex ways in which knowledge and ways of knowing were mediated by SBRs as they dealt with their own and practitioners' anxieties and ambivalences around student assessment data, and also around the capacity to make a difference in student literacy learning in schools servicing low socio-economic, culturally and linguistically diverse communities. Those schools that actively embraced the partnership did mitigate some of the negative effects of neoliberal educational policies and the technologies of high-stakes testing regimes. In these schools the focus shifted from holding individual teachers accountable for student test results, to a collaborative problem-solving approach to improving student learning outcomes.

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¹ Official website developed by ACARA (Australian Curriculum, Assessment and Reporting Authority, 2011a, b) <http://www.acara.edu.au/default.asp>) which provides school performance data on NAPLAN and encourages comparison of test results across schools according to an ICSEA scale (The Index of Community Socio-Educational Advantage) – a scale developed specifically for the ‘My School’ website for the purpose of identifying schools serving “students from statistically similar backgrounds” (ACARA, 2012a, p. 4). The formula for ICSEA is: socioeconomic advantage + remoteness + percentage of Indigenous students + percentage of disadvantaged students with languages background other than English. Socioeconomic advantage is calculated by drawing data from student enrolment records and Australian Bureau of Statistics data on parental occupation, education level, and language background (ACARA, 2012a, pp. 10-12).

² Following Dean (2014, p. 151) we distinguish between neoliberalism as a ‘thought collective’ and a ‘governmental or regulatory development’ with specific apparatus or techniques, such as high stakes testing, league tables, and so forth through which policies are enacted. A thought collective or discursive regime is ‘engaged in a kind of conversation comprising a field of dissension. It has spaces for different voices and processes of discovery while at the same time permitting the crystallization of a consensus’ (Dean, 2014, p.151).

³ Braun, Maguire, and Ball (2010) use the term ‘enactment’ to reflect an understanding that policies are interpreted and translated by diverse policy actors as they engage in making meaning of official texts for specific contexts and practices.

⁴ The National Partnerships are described on the Queensland Government website as a ‘historic investment of more than \$900 million from 2009 to 2015, to improve educational outcomes for all students, under a joint state and federal partnership’. The focus of the partnership agreements is in the areas of: teaching quality; literacy and numeracy, low socio-economic school communities, students with disabilities and empowering local schools. The schools identified as receiving additional funds under this agreement are listed on the website. <http://education.qld.gov.au/nationalpartnerships/index.html>

⁵ We focus predominantly on the accounts of the 5 SBRs who took on the key role of school-based researcher, as one SBR was also a Lead University Researcher.

⁶ The data analysed in this paper is taken from interviews with the following participants.

PARTICIPANTS – Practitioner Leaders	NOS
SCHOOL-BASED RESEARCHERS	6
DISTRICT ADMINISTRATORS	3
PRINCIPALS – 8 Female, 4 Male; 9 Primary, 3 Secondary	12

DEPUTY PRINCIPALS / LEAD LITERACY TEACHERS – all female	14
TOTAL	35

In addition, a total of 290 teachers participated in the partnership project over the course of three years (mid 2009–mid 2012). High levels of teacher mobility meant that changes in staff were frequent resulting in large numbers of teachers being a part of the project at different time intervals and for different time periods. In one audit instance, March 2012, 121 teachers were involved in the project.

⁷ This approach is similar to that proposed by Lai and McNaughton (2009, p. 22) who describe a ‘researcher-developer’ model of ‘research-practice collaboration’ between one university and a cluster of schools serving a poor suburban community of largely Indigenous and ethnic minority groups in New Zealand. Specifically, they suggest that school staff needed both technical and theoretical assistance in learning to make meaning from both externally and internally generated data.

⁸ The interview protocol guide and research information sheet were sent to participants a week prior to the interview. The guide covered nine questions under five themes. The themes included: (1) Smart Education Partnership, (2) Multi-Level Capacity Building intervention around a diagnostic approach to assessment and needs-based teaching, (3) Collaborative Innovative Model of School Improvement, (4) Implications for Educational Policy: Schooling for Social Justice, (5) Sustainability: Leadership, Professional Capacities, Quality Classroom Instruction.

⁹ The ‘Navigating Thinking’ program encouraged students to become knowledgeable, creative, critical, and strategic thinkers. The program implemented Higher Order Thinking as CORE curriculum in a similar way to Project Zero, Harvard University, Graduate School of Education: <http://www.pz.harvard.edu/news.php>; and The Fair Go Project, University of Western Sydney: <http://www.uws.edu.au/education/soe/research>

¹⁰ The interview instrument of 10 broad questions aimed to elicit information about: (1) the role of SBRs, (2) the range of work activities undertaken, (3) the most rewarding and challenging experiences in this role. The SBRs worked specifically with a cluster of schools, and also across the whole set of 12 schools, in collaboration with the lead university and industry partner researchers. All the SBRs were experienced teachers and had undertaken professional development work with teachers prior to joining the project. They all had limited research experience, with only one of the SBRs being an experienced researcher with 15 years of experience, and two with doctorate qualifications. Each SBR worked with a cohort of approximately 17 teachers and had worked on the project for 12 months or more.

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- ¹¹ School Leader interview data collected by Author 1, SBR interview data collected by Author 2, Learning Innovation Project led by Author 3 who spent three years in the local schools supervising work of SBRs, working closely with classroom teachers, lead literacy teachers, principals and district administrators.
- ¹² All of the respondents dealt with this topic and frequently made reference to this topic throughout the interviews.

References:

- Akkerman, S., F., & Bakker, A. (2011). Boundary crossing and boundary objects. *Review of Educational Research*, 81(2), 132–169.
- Alexiadou, N. (2001). Researching policy implementation: interview data analysis in institutional contexts. *International Journal of Social Research Methodology*, 4(1), 51–69.
- Au, W. (2008). *Unequal by design. High stakes testing and the standardization of inequality*. New York: Routledge, Taylor & Francis.
- Australian Curriculum Assessment and Reporting Authority (ACARA). (2012a). *My School*. Melbourne: Australian Curriculum Assessment and Reporting Authority. Retrieved from <http://www.myschool.edu.au/>.
- Australian Curriculum Assessment and Reporting Authority (ACARA). (2012b). *NAPLAN. National Assessment Program Literacy and Numeracy*. Melbourne: Australian Government. Retrieved from <http://www.naplan.edu.au/>.
- Barrett, B. D. (2008). No Child Left Behind and the assault on teachers' professional practices and identities *Teaching and Teacher Education*, 25(8), 1018–1025.
- Bernstein, B. (2000). *Pedagogy, Symbolic Control and Identity* (Revised ed.). Lanham, Boulder, New York, Oxford: Rowan & Littlefield Publishers, Inc.
- Braun, A., Maguire, M., & Ball, S. J. (2010). Policy enactments in the UK secondary school: Examining policy, practice and school positioning. *Journal of Education Policy*, 25(4), 547–560.
- Comber, B. (2011). Changing literacies, changing populations, changing places – English teachers' work in an age of rampant standardisation1. *English Teaching: Practice and Critique*, 10(4), 5–22.
- Council of Australian Governments (COAG). (2008). National Education Agreement. Retrieved from http://www.coag.gov.au/schools_and_education.

-
- Dean, M. (2014). Rethinking neoliberalism. *Journal of Sociology*, 50(2), 150–163. doi: 10.1177/1440783312442256
- Department of Education Training and Employment (DETE). (2010). Smart Schools National Partnership. Queensland Annual Report for 2009. Retrieved 25 April, 2013, from <http://education.qld.gov.au/nationalpartnerships/three-form-initiatives.html>
- Douglas, A. S., & Ellis, V. (2011). Connecting does not necessarily mean learning: Handbooks as mediating tools in school-university partnerships. *Journal of Teacher Education*, 62(5), 465–476.
- Fransson, G., & Grannäs, J. (2013). Dilemmatic spaces in educational contexts – towards a conceptual framework for dilemmas in teachers work. *Teachers and Teaching: Theory and Practice*, 19(1), 4–17. doi: <http://dx.doi.org/10.1080/13540602.2013.744195>
- Hursh, D. (2013). Raising the stakes: high-stakes testing and the attack on public education in New York. *Journal of Education Policy*, 28(5), 574–588. doi: 10.1080/02680939.2012.758829
- James, A. (2013). Seeking the analytic imagination: reflections on the process of interpreting qualitative data. *Qualitative Research*, 13(5), 562–577. doi: 10.1177/1468794112446108
- Keddie, A., Mills, M., & Pendergast, D. (2011). Fabricating an identity in neo-liberal times: Performing schooling as ‘number one’. *Oxford Review of Education*, 37(1), 75–92.
- Lai, M. K., & McNaughton, S. (2009). Raising Student Achievement in Poor Communities Through Evidence-Based Conversations. In L. M. Earl & H. Timperley (Eds.), *Professional Learning Conversations* (pp. 13–28). Milton Keynes, United Kingdom: Springer.
- Levin, H. (2013). Q&A with Henry Levin. *Vol. 5. Lead the Change Series* (March 2013 ed., pp. 1–7). Washington: AERA Educational Change Special Interest Group.
- Lingard, B. (2011). Policy as numbers: ac/counting for educational research. *Australian Educational Researcher*, 38, 355–382.

-
- Lingard, B., Creagh, S., & Vass, G. (2012). Education policy as numbers: data categories and two Australian cases of misrecognition. *Journal of Education Policy*, 27(3), 315–333. doi: <http://dx.doi.org/10.1080/02680939.2011.605476>
- Luttrell, W. (2003). *Pregnant bodies, fertile minds. Gender, race and the schooling of pregnant teens*. London, New York: Routledge.
- Martino, W., & Rezai-Rashti, G. (2013). ‘Gap talk’ and the global rescaling of educational accountability in Canada. *Journal of Education Policy*, 28(5), 589–611. doi: 10.1080/02680939.2013.767074
- Miller, J. (2011). Teachers’ work in culturally and linguistically diverse schools. *Teachers and Teaching: Theory and Practice*, 17(4), 451–466.
- Mockler, N. (2011). Beyond ‘what works’: understanding teacher identity as a practical and political tool. *Teachers and Teaching: Theory and Practice*, 17(5), 517–528.
- Moore, A. (2006). Recognising desire: a psychosocial approach to understanding education policy implementation and effect. *Oxford Review of Education*, 32(4), 487–503. doi: <http://dx.doi.org/10.1080/03054980600884201>
- Moore, A. (2012). *The role of affect in the adoption and implementation of resisted policies in public school settings*. Unpublished Academic Paper. Institute of Education, University of London.
- Newman, L., & Mowbray, S. (2012). ‘We were expected to be equal’: teachers and academics sharing professional learning through practitioner inquiry. *Teachers and Teaching: Theory and Practice*, 18(4), 455–468.
- Seddon, T. (2003). Framing Justice: challenges for research. *Journal of Educational Policy*, 18(3), 229–252.
- Smith, J. M., & Kovacs, P. E. (2011). The impact of standards - based reform on teachers: the case of ‘No Child Left Behind’. *Teachers and Teaching: Theory and Practice*, 17(2), 201–225. doi: <http://dx.doi.org/10.1080/13540602.2011.539802>
- Stern, M. (2012). "We Can't Build Our Dreams On Suspicious Minds" : Neoliberalism, Education Policy, and the Feelings Left Over. *Cultural Studies ↔ Critical Methodologies*, 12(5), 387–400.
- Stewart, K. (2007). *Ordinary Affects*. Durham, London: Duke University Press.

Webb, P. T., & Gulson, K. N. (2013). Policy Intentions and Folds of the Self.
Educational Theory, 63(1), 51–67.