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KNOWLEDGE WORK AT THE BOUNDARY: MAKING A DIFFERENCE TO EDUCATIONAL DISADVANTAGE

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Abstract

This paper aims to contribute to the literature about boundary crossing and explicate how boundaries carry learning potential. We aim to do this by theorising the work of school-based researchers (SBRs) in a school-university partnership project aimed at addressing issues of educational disadvantage. We conceptualise the worlds of teaching and research as characterised by different types of knowledge work and ways of knowing, and by different interaction rituals and emotional investments/energy for engaging with that knowledge. Yet we also contend that the practice boundary that separates also connects and intertwines, as people, objects and knowledge move back and forth across it and become transformed in the process. We suggest that the kind of transformative knowledge work that is discussed in the paper does not entail the discursive wishing away of boundaries, but rather understanding the power and control relations involved in recontextualising knowledge as it moves across the research-practice gap. This process necessitates recognising and acknowledging the emotional investments, energies and interaction rituals attached to local, domain specific knowledge and ways of knowing. By discussing the work of school-based

researchers we aim to show how processes of recontextualisation at the boundary between researcher and practitioner knowledge can hold the potential to make a difference to issues of seemingly entrenched educational disadvantage.

1. Introduction

This paper seeks to theorise knowledge work across the boundaries of a school-university partnership project aimed at addressing issues of educational disadvantage. The aim of the partnership was to collaboratively identify the problems or issues leading to poor student learning outcomes, and then design, construct, implement and assess multiple iterations of interventions to raise student literacy levels. The partnership recognized

... that teachers are usually too busy and often ill trained to conduct rigorous research. Likewise, the researcher often is not knowledgeable of the complexities of the culture, technology, objectives, and politics of an operating educational system to effectively create and measure the impact of an intervention. (Anderson & Shattuck, 2012, p. 17)

Consequently, to address entrenched problems of educational under-achievement it was necessary to forge partnerships across the university and school sectors, and between university researchers and teachers/school leaders engaged in practitioner inquiry (see Erwee & Conway, 2006; Simpson & White, 2012). Within the category university researcher we distinguish between the lead researchers responsible for the overall project and the two teams of research assistants. The first group of research assistants – school-based researchers (SBRs) – were experienced teachers who had also engaged in professional development work with teachers. They received extensive research training from the lead researchers over the course of the three-year project to work intensively in schools with teachers in a capacity-building role. The second group worked closely with lead researchers in data analysis and theory building. This latter team of researchers maintained some distance from the day-to-day intervention component of the project in order to produce and analyse interview and focus group data (see Anderson & Shattuck, 2012, p. 18). As Haraway (1988, pp. 583-585) argues, such researcher positioning or “passionate detachment” is “about limited location and situated knowledge” and offers a “partial perspective,” which promises “objective

vision". In this paper, we – the passionately detached researchers – analyse the work of the SBRs who served a conduit role between the sites of the university and schools. Specifically, we are interested in examining how they moved knowledge, produced and consumed in the domain of research practices, across the boundary to the domain of public school teaching practices in disadvantaged communities and made it count there. In doing so, we are interested in exploring not only the movement of "knowledge" as a static object, but equally in the development of "ways of knowing" as an activity of doing and seeing things in a particular manner (Biesta, 2012) across the practice boundary.

Our interest in thinking about the work of SBRs is motivated by two trends. First, social scientific research is becoming increasingly specialized, resulting in explicit boundaries between the work of different categories of researchers, such as those employed in universities, independent think-tanks, education bureaucracies, and schools. Increasing specialization is leading people to "search for ways to connect and mobilize themselves across social and cultural practices to avoid fragmentation" (Akkerman & Bakker, 2011, p. 132). Second, numerous scholars have raised concerns about the types of data-driven activities currently emerging in schools in response to the "neo-liberal policy as numbers" (Lingard, 2011, p. 355) accountability approach of high-stakes national testing (Au, 2008; Barrett, 2008; Comber, 2011). For example, Comber and Nixon (2009) report that teachers are increasingly spending "precious time, that could be spent in reflecting and observing and creating" on "standardised column reporting" (p. 7). In addition, Keddle, Mills, and Pendergast (2011) argue that the new state-sponsored "market-driven educational reforms have worked to de-professionalise teachers and de-intellectualise teaching" (p. 76) rather than create conditions for teachers to develop innovative practices based on systematic research work.

Conceptually, our discussion in this paper is grounded in the general theoretical framework of "practice theory" that attempts to "explain the dynamics of everyday activity, how these are generated, and how they operate within different contexts and over time" (Feldman & Orlikowski, 2011, p. 2). Central to practice theory is a key set of analytic moves:

(1) That situated actions are consequential in the production of social life; (2) that dualisms are rejected as a way of theorizing, and (3) that relations are mutually constitutive. (Feldman & Orlikowski, 2011, p. 2)

Within this theoretical framework, practices are historically assembled and socially and culturally constructed. They are both tacit and explicit. Boundaries between practices are viewed as markers of differentiation. Akkerman and Bakker (2011), for example, 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. Moreover, Akkerman and Bakker (2011) suggest that although the literature on boundary crossing and boundary objects emphasises that “boundaries carry learning potential, it is not explicated in what way they do so” (p. 132). Our aim in this paper is to address this gap in the existing theory by reflecting on the following questions: How are different kinds of knowledge and ways of knowing translated across boundaries in school-university partnership projects? How can this kind of knowledge work make a difference to educational disadvantage?

In engaging with these kinds of questions, we build on the theoretical frames developed by Vygotsky (1994) and Bernstein (1999), especially their ideas about different forms of knowledge and ways of knowing, as well as boundary crossing processes. In line with practice theory we draw on “analytical oppositions” offered by these scholars as they are useful to make distinctions, while still attempting to “theorize the dynamic constitution of dualities” (Feldman & Orlikowski, 2011, p. 3; see also Sawyer, 2002). In so doing, we build on a substantial corpus of literature in systemic functional linguistics (SFL), which synthesises and extends theories proposed by Vygotsky and Bernstein, in addressing issues of educational disadvantage (see Christie, 2011; Hasan, 2002; Rose, 1999). Our approach differs from the SFL literature in that we focus our attention on the sociology of boundaries, theorising research as intervention, and examine the interaction rituals and emotional investments of knowledge work.

2. Knowledge Growth within and between Practices

2.1 Everyday and abstract domains of knowledge

Vygotsky's (1994) ideas about everyday and scientific¹ concepts were developed in the context of children's thinking development (see for example Hedges, 2012). For Vygotsky, there are two types of human collective experiences that give rise to two kinds of knowledge. The first type – spontaneous or everyday knowledge – emerges through a person's everyday interactions in practical activities in their communities, while the second type – scientific or abstract knowledge – has its roots in educational instruction activity (Daniels, 2001). As Young (2007) suggests, for Vygotsky, scientific concepts that are acquired through schooling “provide the potential for speculation, connection and generalization” (p. 52) while these forms of thinking are not available using everyday concepts.

Bernstein (1999) makes a similar distinction between two types of knowledge, mundane and esoteric knowledge. Mundane or everyday knowledge is acquired in local activities through modeling and demonstration. Bernstein (1999, p.159) elaborates on this knowledge distinction as follows:

We are all aware and use a form of knowledge, usually typified as everyday or 'common-sense' knowledge. Common because all, potentially or actually, have access to it, common because it applies to all, and common because it has a common history in the sense of arising out of common problems of living and dying. This form has a group of well-known features: it is likely to be oral, local, context dependent and specific, tacit, multi-layered, and contradictory across but not within contexts.

By contrast, esoteric knowledge is characterized as taking “the form of a coherent, explicit, and systematically principled structure” (Bernstein, 1999, p. 159). “Such specialized knowledges are not segments of localized activities, but specialized, explicitly assembled, symbolic structures” (Bernstein, 1996, p. 174). Specialist, esoteric knowledge is acquired cumulatively, through a long process of induction or socialization, and usually necessitates intensive forms of pedagogic work. The term pedagogic work refers to the interaction rituals/routines where there is a purposeful intention to initiate, modify, develop or change knowledge, conduct or practice, by a person/team who already possesses or has access to the necessary resources and the

means of evaluating acquisition (Bernstein & Solomon, 1999). Acquisition of specialist, esoteric knowledge is both privileged and privileging in that acquirers are socialized or initiated into “a certain kind of self as much as a certain kind of intellect, an identity based as much on a hierarchy of prestige as on a habit of mind” (Michelson, 2004, p. 20; see also Walkerdine, 1988, p. 198). This means that acquirers need the privileged space, time and resources to engage in pedagogic work and acquire complex forms of knowledge. In turn, the cumulative acquisition of specialist, esoteric knowledge socializes acquirers into new forms of identity – new formations of the self and mind. Thus, pedagogic work is not just about the acquisition of knowledge (static objects), but also about the acquisition of ways of knowing (activity of seeing things in a particular way) (Biesta, 2012).

While making the analytic distinction between these kinds of knowledge, both Vygotsky and Bernstein emphasise their interconnectedness. Vygotsky writes:

The dividing line between these two types of concepts turns out to be highly fluid, passing from one side to the other an infinite number of times in the actual course of development. Right from the start it should be mentioned that the developments of spontaneous and academic concepts turns out as processes which are tightly bound up with one another and which constantly influence one another. (Vygotsky, 1994, p. 365)

For Vygotsky then, pedagogic work means creating conditions, where abstract concepts can be brought into a relationship with everyday concepts within which they both can develop (Daniels, 2001). That is, Vygotsky recognizes that, on the one hand, everyday concepts remain limited in their application and generality without being connected to more abstract concepts, while also acknowledging that scientific knowledge that is not connected to everyday practical knowledge remains merely “dead and empty verbal schemes” instead of becoming “living knowledge” (Vygotsky, 1987, p. 170, as cited in Daniels, 2001, p. 54) of everyday life.

It thus seems that rather than trying to lock knowledge forms into dichotomous categories, Vygotsky (1994) tries to emphasize the constant evolution and growth of knowledge through mutual intertwinement of different forms. He seems to suggest that the tension between different types of knowledge is a generative one and the process of crossing the distance between the two leads to productive outcomes. We find further explanation how this might occur in Bernstein’s (1996) theorizing.

2.2 Crossing the gap between everyday and scientific knowledge

Knowledge growth, according to Bernstein (1996) and his followers (Moore & Muller, 2002) occurs through the discursive gap. That is, abstract concepts attempt not only to describe the everyday reality, but also generate possibilities that are not always evident empirically. For example, abstract concepts relating to pedagogic models attempt to describe empirical practices and also predict future possibilities for pedagogy and potential student learning outcomes. The potential is not yet empirically visible, but is a possibility that becomes thinkable via the abstract, theoretical concepts (see Moore & Muller, 2002). At the same time, the complex, evolving, emergent social reality remains elusive to the conceptual language and instruments of research.

Knowledge growth thus necessitates responsiveness to the tension points between abstract, scientific knowledge and everyday, empirical knowledge. In addition, tension points abound in the network of asymmetrical relations that constitute particular ideas, concepts, things and practices as knowledge and ways of knowing (Biesta, 2012). Reflexivity around these tension points between the thinkable and unthinkable in terms of theory and practice generates new possibilities for emergence.

In line with these central concepts, then, the knowledge of any practice is always a mixture of spontaneous, mundane and abstract, esoteric. That is, university researchers build on disciplinary knowledge that they have acquired through intentional and often lengthy induction into their respective discipline. Yet equally, they acquire their ways of being scientists and doing research in their spontaneous everyday interaction with other members of the research community. Bernstein (1999) talks about social scientists, specifically sociologists, developing a “gaze” through their long induction into their respective discipline that allows them to see social problems in a certain way. Randall Collins (2000) notes that intellectuals/ researchers are socialized through interaction rituals to “produce decontextualized ideas and regard them with the same kind of seriousness and respect as Durkheim noted that believers give to the sacred objects of religion” (p. 159). These interaction rituals in turn generate emotional energy which give participants of specialized research groups “confidence, enthusiasm and strength” in terms of everyday social/ professional encounters of intellectual work (Collins, 2000, p. 159).

Equally, the knowledge that teachers use in their classroom practices is a mixture of the scientific knowledge they have acquired through their pre-service training and continue to obtain through professional development activities, and their knowledge about themselves as teachers working in relationship with students, parents and the wider local community. This latter kind of knowledge is acquired through being present, through participation and engagement, and often not through explicit and intentional instruction.

2.3 Recontextualisation of knowledge

It is clear from the discussion so far that knowledge is changed or altered in the process of being moved from one practice domain to another. Bernstein (1996) suggests that the relational process of selecting and moving knowledge from one domain to another is governed by the rules of recontextualisation. What then is the scientific meaning of the term recontextualisation? First, recontextualisation refers to social rules, routines or interaction rituals which are themselves governed by relations of power and control. Second, recontextualisation refers to what knowledge is selected and how it is reorganised or packaged in the process of movement or translation from one context to another. According to Bernstein (1996) power relations refer to the strength of the insulation boundaries demarcating different domains or contexts. Strong power relations signal strongly insulated boundaries between school and university practices, as well as clearly differentiated professional identities of school teachers and university researchers. From the Bernsteinian perspective, control relations inherent in communication rituals and routines regulate the flows of knowledge between and within domains or contexts. When control relations are strong, there are explicit regulations on what knowledge flows across boundaries, when, how and by whom. Initially, the partnership project reported in this paper was characterised by strong insulation boundaries between the cluster of local schools and the university, and relatively strong control relations of communication. As the partnership progressed, researchers and teachers were more willing to engage in knowledge exchanges. Ideas/concepts and ways of knowing were selectively appropriated and reorganised or repackaged in these knowledge exchanges. Moreover, these knowledge exchanges were not simply arbitrary. Rather they were

underpinned by a strong regulative discourse with implicit views or models of the learner, poverty, disadvantage and the role of the teacher in the local context. Bernstein (1996) suggests that the regulative discourse is the dominant discourse of recontextualisation and determines what knowledge is selected and how it is reorganised or repackaged as it moves from one context to another context or domain.

3. Working at the Boundary between School and University

Our discussion in this paper reflects our work in a school-university partnership project that took place over a three-year period in a cluster of 12 low-performing schools in a disadvantaged area in Queensland, Australia. The aim of the larger project was to work collaboratively with classroom teachers and school leaders to design literacy pedagogies to disrupt educational disadvantage. Specifically, the project team was formed in response to the “sea of red results” in the 2008 national standardized testing (NAPLAN), which emphasized the significantly poor performance of students in the local cluster of schools across the five domains of Reading, Persuasive Writing, Spelling, Grammar and Punctuation, and Numeracy (Australian Curriculum Assessment and Reporting Authority, 2011). As members of the project team noted:

Teachers reported that the majority of students in their classes had little or no interest in reading books, or even in listening to stories read aloud in class. Their efforts to have students read aloud in upper grade levels were met with resistance and often disruptive behaviour. Put simply, teachers reported that students would not, did not and could not read. (Mostert & Glasswell, 2012, p. 16)

Indeed, the 2008 national literacy test score data revealed that in the region’s schools more than twice the number of Year 5 and Year 7 students were underachieving at 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 higher at Year 9 than 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.

Over the three years a complex set of data about students’ learning achievement, changing teaching practices, school cultures, leadership styles and

project evaluations was collected using questionnaires, classroom observation schedules, interviews and focus groups. End-of-project interview data were collected from regional administrators and school leaders (principals, deputy principals, heads of curriculum, lead literacy teachers). In addition to this, we interviewed five SBRs, who worked intensively with classroom teachers and lead literacy teachers across the 12 schools. This work focussed on teacher capacity building, specifically assisting teachers to develop skills in data gathering and analysis and to design pedagogies that would improve students' learning outcomes. While in this paper we focus only on these interviews, our reading of these conversations is informed by the general data set that was gathered over the three years. It is specifically informed by the end-of-project interviews with school leaders, which emphasised the critical role of SBRs in understanding the needs of individual schools and assisting them in designing literacy pedagogies to disrupt educational disadvantage.

Semi-structured interviews with SBRs concentrated on understanding their role in school-university partnership work. The first stage of data analysis was guided by principles of grounded theory (Glaser & Strauss, 1967) and led to a view of SBRs as recontextualisation agents between the practices of research and school/classroom teaching. This initial analysis indicated that SBRs work was influenced by three aspects: (i) success in developing relations of trust and knowledge exchange with classroom teachers; (ii) support received from the school's leadership team; and (iii) ability to respond in a flexible, innovative and responsive way to the competing demands of classroom teachers, school leadership teams, and the objectives of the research project.

Building on these emerging findings, the second stage of interview analysis centred on the following theoretical concepts: practice boundaries and interaction rituals, everyday and scientific knowledge, boundary-crossing processes, knowledge growth, and common knowledge and emotional energy/investments. The analytic questions that were developed to interrogate these concepts are presented in Table 1. Our data analysis and theoretical reflections emerged and evolved together as we moved back and forth between those theoretical concepts and the interview data.

Table 1. Theoretical concepts and analytic questions that guided data analysis

Theoretical concepts	Analytic questions
Practice boundaries Interaction rituals	What practices are discussed? Are differences in interaction rituals/routines between practices discussed? How are they described? How is the relation between these different practices articulated?
Everyday and scientific knowledge	What are the different ways of knowing referred to in the interviews? How is the relation between these different ways of knowing articulated? What is the relation between the professional knowledge and knowledge of the local school/community context?
Boundary-crossing processes	How are ideas/concepts from the educational research literature introduced and navigated into these school communities?
Knowledge growth/change	How are shifts in ways of knowing talked about in the interviews?
Common knowledge Emotional energy/investments	What are the common points of connection in the interaction between teachers and SBRs? What investments are made to generate common knowledge?

For our discussion in this paper we have chosen two interview extracts that describe the work of SBRs. The extracts chosen serve mainly illustrative purposes and are used here as a way of opening up our theoretical reflections. In addition, the interview extracts highlight key methodological issues, in that, we conceptualise the interview as a form of pedagogic work. This work entailed facilitating a dialogic relation between abstract and everyday knowledge. The ‘detached’ group of researchers in the project team were responsible for interviewing the school leaders, as well as the group of SBRs engaged intimately in the research intervention. The interview was not simply about collecting data, but rather a dialogic encounter whereby interviewees reflected on their experience of the research project. It is also important to note that the project team aimed to ensure that all the SBRs worked in a similar manner with teachers in schools and thus the data presented here are also representative of key themes/issues emerging from the entire SBR interview data set.

3.1 Practice boundaries and common knowledge

The first data extract comes from an interview with SBR A. The extract is selected from the early parts of the one-hour interview and follows from a question about the main challenges that the SBR faced in the project. SBR A had said that it had been difficult for her to join the project at the late stage and to *hit the ground running* for it was a *complex* and *multifaceted* project. She then said that she thought it was perhaps impossible to actually hit the ground running in these kinds of projects, *because when you're working with people, you need to build relationship, and you need to build credibility*. She then explained:

The fact that you come in with a badge that says I'm from [the University] and I'm working on [the project] doesn't really cut it with teachers. They need to know who you are and they need to see your work and they need to have shared your narrative. So when I go in and present and I do that professional development work, it provides the opportunity for me to share my narrative as a practitioner. So to say yes, I've done my study and I've done my work. First and foremost I'm a teacher and I've continued to go back into the classroom and to work with them. [...] So now we're starting to build some of that familiarity that says yeah, okay, I'm willing to drop my guard a bit with [this SBR]. I know some of her story, now I'm prepared to share some of mine and I might be ready to change my practice. [...] Because they all have their personal practical areas. They all have what they believe is the best practice for them and if we're going to challenge that and if we're going to say that I want you to change what you're doing because the data's not saying that it's effective, then there needs to be some relationship there before they'll even consider that.

In her answer the SBR draws a demarcation line between the practice of research – the work of people with *university badges* – and the practice of teaching. By saying that teachers are willing to *drop their guard* in some situations, she seems to suggest that ordinarily they are somewhat cautious towards researchers and their ways of knowing about schooling practices. The relation between the two practices thus appears to be characterised by strongly insulated boundaries. In addition, communication flows across the boundaries appear to be strongly regulated. From this SBR's perspective, one way to weaken the control relations of communication inhibiting the flow of knowledge across practice boundaries was to build relationships

by sharing work narratives. This is not to suggest that the content of the work narratives shared by the cohort of SBRs were similar. Rather, similarities were apparent across the data set in terms of the relational work of exchanging narratives to build trust and enhance knowledge exchanges.

Writing about the difficulties of managing the movement of knowledge from one domain to another, Carlile (2004) notes:

[K]nowledge is not only localized but also invested within a given practice. Because knowledge takes investment – time and resources to acquire – it should be seen as “at stake,” indicating the significant costs associated with giving it up and acquiring different knowledge. (p. 556)

Carlile’s view of knowledge thus seems to be similar to Vygotsky’s activity-based model of knowledge (Young, 2007). As explained before, knowledge emerges from people’s engagement in collective everyday activities or intentional induction practices. It develops over time as different individuals move in and out of the practice and make their unique contributions. Practice-based knowledge thus has a history of interaction rituals and holds a legacy of emotional energy. The teachers, as the SBR above says, believe and feel that they know “what is the best practice for them.” They know their school, their kids and their community and they know what works and what does not work in that specific context. The scientific knowledge about literacy teaching and learning that the teachers brought with them when they first started working in the school, and to which they have been continuously exposed through professional development activities, has become deeply embedded into the everyday knowledge about the school, kids and local community that is in circulation in the school community. It has become part of their spontaneous local knowledge and as such has “strong affective loading” and is “highly relevant to the acquirer in the context of his/her life” (Bernstein, 1999, p. 161). Developing and acquiring that knowledge has taken considerable investments of time and effort and, as the SBR says, teachers are therefore not willing to give that knowledge up or exchange it for something else that easily.

It is thus not surprising that in order to get access to this practice-specific local, everyday knowledge and make a contribution to its growth by introducing new ways of knowing (esoteric literacy knowledge), the SBR seeks to build communicative relations

of trust with the classroom teachers. She does not attempt to tear down the boundary between the research world and the world of teaching. The boundary between these domains remains strongly insulated. She may hold some specialist knowledge that might be valuable and worthwhile for teachers to develop their existing understandings, but in order to introduce this knowledge she needs to develop trusting communicative relations with the teachers. She may not know this school and these kids, but she knows what it means to be a teacher in general. That is, she is familiar with the interaction rituals of teaching and she knows the emotional investments and energies related to that work. She is aware of the importance of building communicative relations prior to challenging teachers' work practices by telling them that the data clearly indicates that they are not engaging in the best practices. It is thus common knowledge – the knowledge that the SBR holds in common with the teachers – that works as a resource for mobilising different ways of knowing across practice boundaries (Carlile, 2004). As Edwards (2012), building on Carlile's work, suggests:

Common knowledge woven into future-oriented, outcome-based narratives appears to mediate interactions and give some stability to the fluid and responsive practices now demanded of [...] professionals. (p. 31)

3.2 Transforming practices

The second interview extract we want to look at comes from the interview with SBR B. It is taken from a middle part of an hour-long interview and follows a rather lengthy discussion about the SBR's main activities, where she had described herself as *a sounding board and a mentor* and explained that for her it had been very important to *tailor, customise, be receptive and meet the teachers' needs* when offering them new ideas and designing professional development activities. The interviewer then asked how research informs her work. Her response is multifaceted. On the one hand, she says, data and research emerges from the project itself, and on the other hand, the partnership work of the project necessitates immersion in the research literature, and adaptation of concepts and tools to the local context. The interview then continues in the following manner:

Interviewer: Yes, yes. Good. So do you see yourself perhaps as a kind of, somebody who almost translates that research knowledge that, you know, you have accumulated over the years? You know, you obviously have long experience of doing both teaching but also research. Do you see yourself perhaps as a kind of almost a translator of that knowledge to teachers or?

SBR: As a facilitator...

Interviewer: As a facilitator.

SBR: ...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. To really, not just add on to, say, their [...] data but to listen to where they're at and to talk to their Head of Department about what she perceives with her complex sets of understandings about these knowledge bases and skill sets and pedagogic approaches. Try in a really politic and diplomatic way to assist those teachers to implement productive change.

In her answer the SBR draws a distinction between the process of translation and the process of facilitation. For her, translation is similar to *adding on* to what is already available. She suggests that she tries to work *with* and in partnership by *listen(ing) to where the teachers are at* and *be(ing) responsive to what they are saying*. She says that she tries to talk to the *Head of Department* who has *more complex sets of understandings about these knowledge bases and skill sets and pedagogic approaches*. Thus, research knowledge cannot be simply transferred or translated, in the everyday common-sense usage, from the research to the classroom context. Rather, it has to be selectively appropriated, reorganised and embedded within the dominant regulative discourse of the local context. The SBR gets access to the regulative discourse of this context via the Head of Department who has *complex* understandings of teachers' theories of learning, learners, and the disadvantaged context, as well as *complex* understandings of the current *skill sets* and *pedagogic approaches* deployed. The moral discourse of the local context regulates what research knowledge is recontextualised and how it is introduced and embedded in

classroom practices. However, there is a danger here. If the moral discourse of the local context regulates knowledge recontextualisation what are the possibilities for *productive change*? The answer given by the SBR is that change has to be *really politic and diplomatic*. In other words, the gradual adoption of different types of research knowledge may lead to changes in student learning achievement, which in turn may change the moral discourses regulating local contexts. All of the school leaders interviewed for the study spoke about the difficulties of instigating and sustaining cultural change in the local context. In other words, all the school leaders talked about how hard it was to change the moral discourses regulating views of the good teacher, teaching, student learning expectations, poverty and what it was possible to achieve in the local context. Indeed, one principal (Z) argued that some teachers seemed to have a vested interest in holding onto low student expectations despite data that clearly showed significant gains in learning achievement during the period of the partnership intervention. She spoke of the subtle ways in which one lead SBR shifted teachers' talk about disadvantage and student learning possibilities.

School Principal Z: I have one particular teacher who is great with the excuses; well, you know, but these kids and but this and but that, and that was probably because, because. The SBR just said, yes, that's possible - - and then said, are there any other possibilities, and drew that out. Very subtly - and with this particular teacher, you'd need to do it more than subtly - but she really dealt with it well. So, it was even those moments of doubt that the teachers had that were so professionally and eloquently dealt with.

In the first interview extract above, SBR A talks about the importance of building *relationships* with teachers. SBR B seems to refer to something similar here; that it is through personal involvement and relationships that we get to understand what others know and do not know and what kind of emotional investments they have made and continue to make to acquire and develop that knowledge. Edwards (2011) refers to this kind of knowledge as *relational expertise*. It thus seems that it is the SBR's relational expertise that mediates her work of facilitating the *implementation of productive change* in schools. In her interview SBR B talks about the project team's

efforts to change that attitude and about her joy of seeing how slowly the focus did in fact started to shift. As SBR B and others in the project told us, this shift required a lot of work, both with concepts and ideas and with emotions and relationships. It was the work of listening, of looking beyond the words and capturing the meanings, the pain, the hurt, the despair, and the work of talking, of offering new meanings, of recognising the success, the joy, the hope. As another of the School Principals (Y) said: *I've always felt with [the research team leader] that she really cared about us. [...] She really cared about our kids and she cared about us as people. That mattered because playing in this sort of space, it's not easy.* His comment resonates with a comment from the Principal (Z) we referred to above, who said: *You have to build hope in [the teachers] too, when they are in very much a chaotic environment.* It was thus through this kind of knowledge and relational labour, the SBRs told us, that the object(ive) of teachers' work started to slowly shift from lamenting about student behaviour and despairing about disadvantage to talking about the possibilities of student learning gains. The work of teachers gradually started to focus on designing, constructing, implementing and evaluating the effectiveness of their own pedagogies in terms of student learning achievement.

Engeström and Sannino (2010) talk about this process of transforming the practice as the process of expanding the object(ive) of work. They refer to Engeström's (1987) theory of expansive learning, where "the learners are involved in constructing and implementing a radically new, wider and more complex object and concept for their activity" (p. 2). In Engeström's interpretation, the expansion of the object leads to the construction of a new motive, new extended and widened purpose for the collective activity, as well as to the transformation of each individual's personal meaning of their work, of their personal objective and motive of participating in the practice. Importantly, as Engeström suggests, the new expanded object that emerges from collective learning does not eliminate and replace the old one; rather the new object is an enriched, widened, broadened and more complex version of the old object. Which is precisely what the SBRs told us happened in schools: the disadvantage, the pain and the despair about it all did not disappear; it remained actual and real for the children, for the teachers and for the researchers. Yet new ways of working through the pain and despair and of building bridges of learning across it

emerged through the joint knowledge work of teachers and researchers. One of the Lead Literacy Teachers (LLT Y) described the process in the following way:

There was a period, it was grief and it was an overwhelming grief for the staff. But then it morphed or evolved into quite a competitive positive energy. that that wasn't good enough for our staff. They felt that they could do – that they had the power, with all the input that was given by the [partnership project] team, to make a difference to make change.

4. Concluding Remarks

Schooling institutions, particularly those situated in low-socioeconomic communities, have an enormous responsibility to ensure the equitable distribution of complex forms of specialist knowledge as encapsulated in the Australian curriculum. And yet it is in these communities that schooling fails the very learners that need it the most. This is particularly the case when school curriculum is “dumbed down” under the assumption that students may not be able to handle the complexity and challenges of abstract forms of knowledge. To blame school leaders and teachers for holding these assumptions and to exhort them to simply change “deficit” views of learners in disadvantaged communities negates the historical legacies of investments and interactional rituals that have generated seemingly entrenched patterns of inequity. To blame school leaders and teachers for this failure does not take into account the complexity of the resources needed to undertake the type of transformational work discussed in this paper. Equally, it cannot be assumed that research teams (university researchers, school-based researchers) have a “god’s-eye view” (Haraway, 1988) on the practices of schooling, an “absolute viewpoint, the perspectiveless view of all perspectives” (Bourdieu, 1992, p. 28) and therefore the “truth” to address educational disadvantage. Such a theoretical position buys into the fantasy of certain science and is antithetical to the position of practice theory. As Bourdieu (1992) argues:

So many researchers fall into the trap of claiming that the practical logic or practical mode of knowledge of teachers is limited, and they can by access to theoretical knowledge (1) gain insight into the whole experience and conditions for the production and enactment of practical knowledge of the observed, and (2) that the theoretical knowledge of their privileged position gives them the standpoint, lever to do this, and (3) the knowledge produced from their academic/theoretical standpoint is superior to the everyday knowledge of the observed. (p. 28)

Our aim in this paper was to theorise the work of SBRs engaged in a school-university partnership project aimed at addressing issues of educational inequality. The world of teaching and the world of research have been traditionally seen as being separated by a boundary, leaving those who hold the craft knowledge of teaching to one side and those who hold scientific knowledge about pedagogies on the other side of this boundary. We argued that the worlds of researchers and teachers are characterised not only by different types of knowledge work and ways of knowing but also by different interaction rituals and emotional investments/energy for engaging with that knowledge. The perceived discontinuity between those two worlds was evident also in the interviews that we analysed in this paper. Yet, as Akkerman and Bakker (2011) suggest, boundaries are not only about difference and separation, they are equally about similarity and connection. That is, boundaries draw a distinction between mutually constitutive and relevant parts that give meaning to each other. The worlds of school and research are thus inherently connected and intertwined as people, objects and knowledge move back and forth across the connecting boundary, becoming transformed in the process. What this means, then, is that practice boundaries are not necessarily imprisoning and need not be “crossed, transgressed, combated and otherwise wished away wherever they appear to manifest themselves” (Muller, 2000, p. 77). Rather, the question is how to cross boundaries safely and in a manner that is empowering, instructive and productive for everyone involved.

Our analyses of the work of school-based researchers indicates that transformative knowledge work at the boundary is complex and requires an understanding of the power and control relations regulating not only the strength of insulation boundaries, but also the flows of knowledge across boundaries. It involves understanding the moral discourses regulating everyday or local knowledge about teaching, learning and possibilities for achievement in poverty contexts. Furthermore, knowing about the moral discourses regulating a local context, the “thisness” of the local context, entails learning about the emotional investments and energies that are in circulation. It means participating, engaging and caring to recognise and acknowledge the pain, the hopelessness and despair that, as our analysis indicates, can characterise the work of teachers in disadvantaged communities. Yet it also entails

maintaining distance that enables containing the hopelessness for others, and thus assisting them in finding a way through pain towards hope. For it is this kind of knowledge and emotional work at the boundary between school and research practices, that holds the potential to make a difference to issues of seemingly entrenched educational disadvantage.

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¹ We use the term scientific to refer to all forms of knowledge in the sciences, social sciences and humanities produced through academic work. Knowledge refers to the network of statements, ideas, insights and to the "things (technology), practices (protocols, ways of acting and doing) and [...] texts" produced through academic work (Biesta, 2012, pp. 411-412).