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Distributed leadership: developing theory from practice

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Hopes that the transformation of schools lies with exceptional leaders have proved both unrealistic and unsustainable. The idea of leadership as distributed across multiple people and situations has proven to be a more useful framework for understanding the realities of schools and how they might be improved. However, empirical work on how leadership is distributed within more and less successful schools is rare. This paper presents key concepts related to distributed leadership and illustrates them with an empirical study in a school-improvement context in which varying success was evident. Grounding the theory in this practice-context led to the identification of some risks and benefits of distributing leadership and to a challenge of some key concepts presented in earlier theorizing about leadership and its distribution.

Keywords: Distributed leadership; leadership effectiveness; leadership qualities; School improvement; teacher leadership.

Hopes that the answer to the problem of transforming schools lie with the strong leader with exceptional vision and action have been dashed for a number of reasons. Such leaders do not come ready-made in sufficient numbers to meet the demands involved in being a school leader in today's world (Copland 2003), and such conceptualizations often have little appeal for potential leaders (Gronn and Rawlings-Sanaei 2003). Furthermore, the number of administrative tasks a principal undertakes typically leaves insufficient hours in the day to complete the necessary heroic activities and to cope with these more mundane responsibilities (Elmore 2002, Gronn and Rawlings-Sanaei 2003). Most problematic is that, when the heroic leader moves on, progress often comes to a standstill and previous practices re-emerge (Copland 2003).

A more achievable and sustainable conceptualization of leadership has been coming increasingly to the fore to replace the model of 'a single "heroic" leader standing atop a hierarchy, bending the school community to his or her purposes' (Camburn *et al.* 2003: 348). This alternative involves thinking of leadership in terms of activities and interactions that are *distributed* across multiple people and situations (Camburn *et al.* 2003, Copland 2003, Spillane *et al.* 2004) and involve role complementarities and network patterns of control (Smylie and Denny 1990, Heller and Firestone 1995). Its

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focus is on how school leaders promote and sustain conditions for successful schooling in interaction with others, rather than on what structures and programmes are necessary for success (Spillane *et al.* 2004). This re-conceptualization of leadership has roots in the 1980s and early 1990s as developing ideas about the cultural and historical influences on individual cognition led to an understanding of this cognition being distributed through the material and social artifacts in a particular environment (Cole and Engestrom 1993). Parallel to these ideas about individual cognition were changes in thinking about organizations, particularly with reference to developing organizational cultures involving many actors contributing to norms, beliefs, and principles from which members developed a shared purpose (Sergiovanni 1984). However, it is only since the mid-1990s that the idea of *distributed leadership* has been the focus of serious consideration in the research literature. From this perspective, leadership is viewed, as Copland (2003: 376) puts it, as

> a set of functions or qualities shared across a much broader segment of the school community that encompasses administrators, teachers and other professionals and community members both internal and external to the school. Such an approach imposes the need for school communities to create and sustain broadly *distributed* leadership systems, processes and capacities.

In this paper, it is not my intention to trace the history of the emergence of ideas relating to distributed leadership or how it differs from other conceptualizations. This task has been ably undertaken by others (e.g. Copland 2003, Gronn 2003, Spillane *et al.* 2004). Rather, I will discuss key concepts related to distributed leadership and illustrate them with an empirical study in a school improvement context. In this study of seven schools, the ways in which leadership was distributed were differentially effective in terms of promoting school improvement. The leadership qualities discussed in relation to this differential effectiveness include leadership activities and how they were distributed, the social distribution of task enactment, and the place of artefacts in distributed leadership. First, however, issues related to the definition of distributed leadership will be discussed and the context for the empirical study described.

Conceptual problems and definitional issues

Unfortunately, limiting this discussion to distributed leadership, rather than including other forms, does not mean that a coherent conceptual base is ready to be described because the term means different things to different people. However, one point on which different authors appear to agree is that distributed leadership is not the same as dividing task responsibilities among individuals who perform defined and separate organizational roles, but rather it comprises dynamic interactions between multiple leaders and followers. Task responsibilities are distributed across traditionally defined organizational roles. 'Decisions about who leads and who follows are dictated by the task or problem situation, not necessarily by where one sits in the hierarchy' (Copland 2003: 378). Spillane *et al.* (2004) refer to this distribution as being 'stretched over' people in different roles.

A second point of agreement is that distributed leadership is particularly important in relation to the instructional aspects of leadership. It is the development of instructional leadership, rather than other organizational functions, that has been shown to have the greatest leverage in effecting programmatic changes and instructional improvement (Southworth 1990, Eraut 1994, Hargreaves 1994, Leithwood *et al.* 1999).

From this point on, however, the varying descriptions of distributed leadership show more divergence than similarity. One such divergence concerns the relationship between transformational and distributed leadership. Both involve mobilizing personnel to take on the tasks of improving instruction (Leithwood *et al.* 1999, Spillane *et al.* 2004). The issue is whether one is a sub-set of the other, and if so which is a sub-set of which. Leithwood and Jantzi's (1999) analysis of transformational leadership lists distributed leadership as one of many components. Spillane *et al.* (2004), on the other hand, consider that leadership in schools is mostly distributed. This distribution, however, may or may not be transformational. In this paper, I am taking a position similar to that of Spillane *et al.* in assuming that leadership in schools is almost inevitably distributed, and the issues to be considered are *how* the leadership activities are distributed and the ways in which this distribution is differentially *effective*.

The differences in perspectives are partly due to whether a descriptive or normative approach to distributed leadership is taken. Spillane *et al.* (2004) adopt a primarily descriptive approach and propose that the key task for researchers is to develop a framework and a set of analytical tools to identify *how* leadership is distributed. This focus on the 'how' has implications for the unit of analysis that of necessity becomes 'actors in situations working with artefacts, rather than actors abstracted from situations or artefacts' (Spillane *et al.* 2004: 9).

Gronn (2003: 24) also adopts an essentially descriptive approach in which he begins to develop a taxonomy of distributed leadership. This taxonomy is based primarily on relationships, such as, co- or collective performance; and structure, such as the number of members in the form, and how such qualities may influence intuitive or institutionalized action. His unit of analysis is less specified than that of Spillane's in that it 'refers to the idea of a bounded set of elements comprising the entity which is the focus of research'.

The main difference between this essentially descriptive work and that of others, such as Camburn *et al.* (2003), is the normative orientation of the latter researchers. An implicit assumption underpinning their work is the perceived desirability of distributing leadership across an increased number of people in an organization because such distribution has the potential to build capacity within a school through the development of the intellectual and professional capital of the teachers (Day and Harris 2002, Camburn *et al.* 2003). Leadership becomes a collaborative endeavour involving all teachers (Lambert 1998). Associated empirical work (see e.g. Camburn *et al.* 2003, Copland 2003) shows how a variety of comprehensive school reforms, particularly when focused on inquiry-based approaches, create new leadership positions through the appointment of coaches and/or facilitators whose responsibility is typically to provide instructional support and ensure

adequate implementation. These authors are less concerned about developing taxonomies than identifying whether more leadership positions have been created, and, if so, how different leadership functions are distributed across them. Surveys of school personnel indicate that greater distribution is typically associated with comprehensive school reform, although this does not happen without some associated challenges.

Despite the differences between those taking a descriptive or a normative stance, there is general agreement that further empirical work is needed, particularly work that provides rich cases of day-to-day instructional leadership activities using a distributed framework (Camburn *et al.* 2003, Copland 2003, Spillane *et al.* 2004) rather than relying on the more usual self-report surveys. Given that leadership *activity*, together with the artefacts and relationships that form an integral part, form the essence of a distributed leadership analysis, such on-the-ground observations are essential to developing these important concepts further.

In this paper, the data used are primarily observational, together with interviews related to those observations. The analysis is based mainly on the framework developed by Spillane *et al.* (2004) because their descriptive focus provides a framework for further development of the constructs. However, if the goal of improving leadership is to be realized, so that it has greater influence on instructional practices in the interests of improving schools, I argue that more than a descriptive analysis is needed. The normative position I take, however, is different from the implicit position adopted by others (Leithwood *et al.* 1999, Camburn *et al.* 2003, Copland 2003) that greater distribution of leadership is necessarily better. Rather, I suggest that better understanding is needed of how leadership is enacted when it is distributed and of the conditions under which such distribution is differentially effective if it is to make a difference to instructional practices in schools. This perspective, of necessity, judges effectiveness primarily on the quality of task performance (Robinson 2001). The ultimate goal of such instructional task performance, I argue, is to enhance student learning, rather than to change leaders' or teachers' practices *per se*. Effectiveness judgements, therefore, should be made in relation to this goal of benefit to students. In this study, changes in student achievement (or lack of them) served as such a reference.

The research context

This project studied the leadership processes in elementary schools involved in a school improvement initiative. In order to understand the context, some background information is needed. Since 1989, schools in New Zealand have experienced a high level of self-management. At that time, all district-level administration was abolished and replaced by Boards of Trustees at each school. Over the next few years, the primarily policy-oriented Ministry of Education set a very broad national curriculum that is essentially developmental, rather than focused on particular standards for a given grade level. There is no mandated national testing in elementary schools, although the Boards of Trustees are required, through the principal and staff, to monitor the progress of students against the achievement objectives

outlined in the curriculum statements (NZ Ministry of Education 1993). A variety of nationally-normed assessments in reading and mathematics are available for schools to use should they wish. Monitoring of results is intended primarily for internal purposes, with no expectation that the results will be reported to an external agent for accountability purposes. Schools are required to report to their communities, but this reporting rarely includes assessment information.

An external audit and review agency inspects schools on a regular basis against a set of quality indicators. In 1996, a report (NZ Education Review Office 1996) was published outlining the inadequacy of education offered in approximately half of the schools in two of the poorest communities in the country. Their populations were predominantly Maori (New Zealand's indigenous people), or first/second generation immigrants from one of the small Pacific Island nations of Samoa, Tonga, Fiji, Nuie, or the Cook Islands. Early in 1998, these schools were offered additional resourcing to undertake a self-identified project to improve the literacy achievement of the students. This approach had little impact on classroom instruction (Timperley and Robinson 2003) and a Ministry-sponsored professional development for literacy leaders and grade 1 teachers was offered to the schools in early literacy acquisition if they wished to take part. The seven schools in this study participated in the professional development.

Method

The research took place over 4 consecutive years and involved observations, interviews, and the analysis of student achievement data for each year. In any research on leadership, capturing the interactions and activities of leaders, even within the heroic solo-leader construction of leadership (see e.g. Burns 1978, Hodgkinson 1983), is difficult. Many interactions occur incidentally or in private. These difficulties are compounded further when distributed leadership is the subject of investigation due to the virtual impossibility of recording the key interactions among a variety of leaders and followers, who may interchange roles at any given time depending on the task. Team meetings were selected as the situation likely to focus on instructional leadership. They had the additional advantage that all schools held such meetings so comparisons could be made across the schools. The participating leaders were asked, therefore, to nominate a meeting in which they discussed either student achievement in literacy or the literacy programme that was the focus of the recently completed professional development. A minimum of three such meetings were observed in each school. Observations, however, do not necessarily reveal the inevitable task complexity and ambiguity that form constraints on activities within a meeting, or the impact of what occurred on actions subsequent to the meeting, so interviews were conducted with those in attendance after (and sometimes before) each of the meetings.

Consistent with a distributed leadership orientation, the key leadership activities observed were the literacy leaders interacting with the team of teachers who were responsible for Grade 1 students. However, principals were also interviewed at least once per year because of their responsibility

for more macro leadership tasks. Spillane *et al.* (2004) argue that part of understanding leadership activity is to understand how macro and micro tasks are interlinked. The macro functions they identified that formed the focus of this paper included:

- Developing and managing a school culture conducive to conversations about the core technology of instruction by building norms of trust, collaboration, and academic press among staff;
- Supporting teacher growth and development, both individually and collectively; and
- Providing formative monitoring of instruction and innovation.

The participants and data collection procedures are described in more detail below with a summary timeline provided in table 1.

Data collection

In each of the seven schools, the principal, literacy leader, and three teachers of Grade 1 students who represented a range of skills and views were interviewed in each school each year. Meeting observations included all teachers

Table 1. Research-related activities.

Year and professional development undertaken	Research data collection
Baseline	Achievement data as students completed first year of schooling in all schools. No other research data collected.
Year 1 ● First 6 months—literacy leader and teachers participated in professional development. ● Second 6 months—no external professional development.	● Achievement data (as for Year 1). ● Observation of one team meeting in each school. ● Interviews of principal, literacy leader, and three teachers in each school. ● Written feedback to individual schools followed by discussion.
Year 2 ● No external professional development.	● Achievement data (as for Year 1). ● Observation of one team meeting in each school. ● Interviews of principal, literacy leader, and three teachers in each school. ● Written feedback to individual schools. ● Combined schools discussion and critique of research report.
Year 3 ● Training session for literacy leaders on the analysis of data (Group one schools).	● Achievement data (as for Year 1). ● Observation of one team meeting in each school. ● Interviews of principal, literacy leader, and three teachers in each school. ● Combined schools discussion and critique of research report.

of the Grade 1 students and their literacy leader. The 21 teachers involved in the interviews had completed teacher registration requirements and ranged in experience from 1 year to more than 20 years. All of the literacy leaders and teachers had participated in professional development in early literacy acquisition during the first year of the study.

The observational and interview data were collected each year for 3 years beginning with the year of the professional development. Student achievement data were collected the year prior to the professional development as baseline and over the following 3 years. Individual school reports were provided and discussed with participants each year and comments were taken into account in the more comprehensive reports written at the end of Years 2 and 3. These latter reports were critiqued by the schools involved in a public forum.

Interviews and meeting observations

The interviews were designed primarily to probe the reasons for particular activities that were observed during the meetings. Some interview questions were asked of all participants and are indicated in the data descriptions. The three observed meetings in each school were analysed in terms of the frequency with which specified activities occurred and the material artefacts, such as student achievement data, that were part of the meeting activity. In addition, a dialogue analysis of the tape-recorded transcripts was coded by the investigator, and independently checked by a teacher in her second year of teaching who had no other involvement with the research.[1]

The coding schedule was developed to distinguish among the following types of meeting discussions: (a) External or organizational issues that did not relate directly to the instructional programme; (b) Descriptions of programmes and teaching approaches without reference to any achievement information; (c) Understanding the meaning of data without reference to any teaching implications; (d) Problems identified from the achievement data that were specific to individual students with the teaching implications discussed; and (e) Other (e.g. social discourse). The percentage of time spent for any one code was calculated by using the number of lines per topic as a proportion of the total lines. Quotes were extracted from the transcripts to illustrate the meaning of particular codes and how they reflected the differences in meeting activity.[2]

The analyses of meeting activities showed differences in both activities and material artefacts between two groups of schools. The Group one schools had either no achievement information available for the meeting (Bakerfield,[3] Belmont, and Bledisloe) or had achievement data that were aggregated for all students across the year-level so the achievement of individual students, or the teachers who taught them, could not be identified. These data were not discussed in terms of their teaching implications, rather these schools spent most of their time describing programmes and teaching approaches or examining data without examining the teaching implications. The Group two schools (Avonside and Allendale), in contrast, had nationally benchmarked student achievement information on the table in front of

Table 2. Percentage of meeting time spent in different activities.

School	External or organizational	Programme descriptions and teaching approaches	Meaning of data (no teaching implications)	Data-identified achievement problems specific to individuals[1]	Other
Group one					
Bakerfield	3.1	96.5	0	0	0.4
Bellview	32.2	42.0	2.5	0	
Belmont	0	99.0	0	0	1.0
Bankside	11.1	7.0	26.8	3.0	
Bledisloe	9.6	67.2	5.5	1.7	
Group 2					
Avonside	3.7	0	6.5	72.6	
Allendale	6.9	30.3	9.5	46.4	

[1] Includes suggested solutions.

each participant. Each student's reading level was identified on a scatter plot, colour-coded by class with a clear indication of whether the student was above, at, or below national benchmarks. The teaching implications arising from these data formed the basis of most of the meeting discussion. An analysis of the percentage of time spent in the meetings in the seven schools in Year 3 is presented in table 2.

After receiving feedback on the research findings at the end of Year 2, the observed differences in the activities at the meetings between the two groups of schools reduced. The profile of activities in the Group one schools more closely resembled those of Group two. More time was spent in the Group one schools identifying targeted students and discussing relevant programme adjustments. Table 3 identifies the changes in the amount of time spent in the same activities in Year 3 as those identified in table 2.

Student achievement

Two sets of student achievement information were used. The first related to literacy skills at school entry and the second to achievement after 1 year at

Table 3. Average percentage of time spent in different activities in all five schools in Years 3 and 4.

School	External or organizational	Programmme descriptions and teaching approaches	Meaning of data (no teaching implications)	Data-identified problems specific to individual[1]	Other
Group one	7.8	63.2	6.7	1.7	20.6
Group two	3.5	29.5	16.6	29.2	21.2

[1] Includes suggested solutions.

school. Details of all achievement measures and the analysis used are described in a technical report (Timperley and Wiseman 2003) so a general outline only is provided here.

School entry

Although it can be assumed that the children's scores at school entry were unlikely to be significantly different because all the children were attending schools located in communities categorized as the poorest 10% in the country, this assumption was checked by assessing a random sample of 10% of children whose data are included in the research in each school. Formal statistical analyses were not possible because the small sample and variable performance within schools led to very high standard deviations. The scores did not show a discernible pattern among the schools in achievement at school entry. For example, in Bellview and Bledisloe, no child had reached the first beginning text level of reading two-word captions on a page, with only two or three children in each of the other schools beginning to master this skill. For word recognition, no child recognized any words in Belmont and Bledisloe, with only one or two words recognized by students in the other schools.

End of first year of formal instruction

Each school regularly assessed all students individually after 1 year at school on six different literacy measures using trained assessors. The assessor recorded the results, with a summary given to the classroom teacher; if a child performed poorly, the results were sometimes accompanied by teaching recommendations. In no school were these recommendations followed up to ensure their implementation. The assessment had very 'low stakes' for either the literacy leader or the teachers. Only two schools (Bankside and Avonside) aggregated the results in any form.

The two measures from the overall assessment battery that were used in this study were selected because they required relatively sophisticated reading knowledge, and reflected skills and attainments that were at greatest risk of not being achieved by students from low-income communities (Phillips *et al.* 2001). These were text reading accuracy (Clay 1993) and generalized word-recognition using the BURT word list (Gilmore *et al.* 1981).

In order to determine a particular school's reading profile so that the student's achievement in the schools could be compared, we created a *z*-score, with a mean of 10 and a standard deviation of 2, combining results from the Text level and BURT scores. In each school, therefore, the reported *z*-scores after 1 year of instruction over the 4 years were a combined reading score with equivalent weighting given to the separate text-level and BURT measures. The mean reading scores for all children after 1 year of instruction in each school for each of the 4 years are presented in table 4.

Table 4. Reading scores for each school for baseline and Years 1–3.

	Baseline		Year 1		Year 2		Year 3	
School	*n*	*M* (SD)	*n*	*M* (SD)	n	*M* (SD)	*n*	*M* (SD)
Group One								
Bakerfield	69	9.19 (1.51)	64	8.72 (1.2)	81	9.23 (1.5)	48	9.74 (2.15)
Bellview	70	8.17 (0.90)	59	8.86 (1.65)	65	9.45 (2.00)	57	10.58* (1.91)
Belmont	53	9.20 (1.51)	50	9.94 (1.95)	45	10.09 (2.00)	73	10.71* (2.40)
Bankside	27		53	9.88 (1.51)	44	10.13 (1.56)	62	10.43* (2.12)
Bledisloe	66	9.27 (1.24)	50	9.02 (1.30)	42	10.2 (1.73)	21	10.99* (2.27)
Group Two								
Avonside	63	10.42 (1.85)	90	10.53 (2.20)	70	10.96 (2.24)	114	11.29 (2.12)
Allendale	119	10.12 (1.97)	105	10.63 (2.03)	64	11.21 (2.18)	59	10.48* (1.72)

In Year 2, the achievement of Bakerfield and Bellview was significantly lower than that of Belmont, Bankside, and Bledisloe, which was, in turn, significantly lower than in the Avonside and Allendale (Scheffé test of multiple comparisons).
*$p < 0.05$.

Findings

Student achievement

A one-way analysis of variance in Year 2 showed significant differences between the schools' reading scores [$F(6, 406) = 8.736$, $p < 0.01$]. A Sheffé test of multiple comparisons established that in Year 2 (18 months after the completion of the professional development) the schools fell into three groups that were significantly different from one another ($\alpha < 0.05$). The scores in Bakerfield and Bellview were significantly different from those in Belmont, Bankside, and Bledisloe, which were, in turn, significantly different from those in Avonside and Allendale. In Year 3, when the five lower-achieving schools adopted the same meeting and data-analysis activities as the two higher-achieving schools, the scores in these schools improved. There was no significant difference in the students' achievement scores for six of the seven schools. The scores for Bakerfield, however, remained significantly different from the scores for Avonside. Allendale was the only school with a decline in *z*-scores, although the scores at this school were not significantly different from the other schools.

Analysis of leadership activities

The remainder of this paper focuses on the leadership activities in the different schools using a distributed leadership framework. The schools were divided into two groups for the purposes of comparative analysis. Bakerfield, Bellview, Belmont, Bankside, and Bledisloe, Group one, showed leadership activities which were similar in Years 1 and 2 of the study, and their achievement was significantly lower than in the other two schools. Avonside and Allendale, Group two, while similar to each other, had meeting activities

which were very different from those in Group one during Years 1 and 2. The achievement of these schools was significantly higher than in the other five schools. All schools' meeting activities became more similar in Year 3, as did the students' achievement.

In the following, for the sake of clarity, I present detailed descriptions and excerpts from field notes for two schools only. Bellview is used to illustrate the activities in the Group one schools and Allendale the activities in Group two. When the activities in these two schools differ from others in their group, these differences are noted.

Isolating key constructs in an analysis of distributed leadership is inevitably difficult because the concept itself involves a web of task, situations, and people. The three constructs on which I have chosen to focus in this paper include the importance of focusing on activities rather an individual's leadership traits or personality, the social distribution of task-enactment, and situational distribution of task-enactment.

Activity or leadership traits

Implicit in analyses of 'heroic' leaders is an assumption that their personal qualities, passion, articulateness, and energy lead to an acceptance and enactment of their organizational vision by 'followers' (see e.g. Burns 1978, Hodgkinson 1983). Consistent with this orientation, all schools had the usual vision statements in their various documents, but these documents were not observed to form the basis of leadership activities in practice. Furthermore, the leadership visions in action in the Group one schools had embedded within them very different visions of what it meant to be effective than did the actions in their Group two counterparts. It is this difference that is the subject of the following analysis.

Embedding the vision in activities

Achievement in literacy was the major focus of the school improvement initiative, and, of course, the professional development. In Years 1 and 2, the two most successful Group two schools communicated their vision that all students were capable of reaching national benchmarks in reading through the meeting activities. Also communicated was their responsibility to develop teaching strategies to accomplish this outcome. They did this by analysing student achievement against national benchmarks of expected achievement, identifying slow-progress students who had not reached the benchmarks together with the teachers who taught them, and then working together as a team to diagnose each individual student's reading difficulties and helping the teachers concerned to develop strategies to accelerate progress. The meeting discussion focused on how to move these students from below the benchmark to reaching or exceeding it. The possibility that some students were not capable of doing so never entered into the discussions.

At no time were explicit vision-type statements articulated, such as, 'We believe all our students can achieve', rather the assumption that they could

if they were taught effectively was embedded in the activity. Through analysing the reading difficulties experienced by the low-achieving students and examining what they, as teachers, could do to assist them, the vision was clear. For example, in Allendale, two students whose achievement sat below the benchmark had not made progress over the last 10 weeks. After identifying their reading level, the following conversation took place:

> *Teacher*: I've had to keep them at this level because they were not coping when I tried them on harder books. They just didn't know the words.
>
> *Literacy leader*: What does the running record [assessment] say?
>
> *Teacher*: They both got all the little words mixed up. R said 'we' for 'when'. M said 'were' for 'is'.
>
> *Literacy leader*: These sound like different problems to me. Let's have a look at R's running record first. I wonder if he is not making any sense of what he is reading or just not looking carefully enough at the words.
>
> *Teacher*: He has no idea what he is reading …

The discussion continued with a more detailed analysis and some agreed on teaching strategies. One teacher explained how it impacted her teaching in a follow-up interview:

> [The literacy leader] graphs them for us and we can see who is falling behind which is good. With my lowest group I see them four times a week and try to push them up. You can see who is struggling and where you have to close the gap. So it's good and we talk about that. You don't want any of them to be below.

In four of the five Group one schools in Year 2, on the other hand, the vision embedded in the meeting activity gave a different message to the teachers—their responsibility was to implement the programme that was presented during the professional development as well as they were able. In none of the schools was the adequacy of student achievement discussed nor was programme implementation linked in any way to the students' achievement. Exactly how this message was communicated through the meeting activities was different in the individual schools. Bakerfield, Belmont, and Bledisloe did not use any material artefacts at the meeting. The teachers in Bakerfield spent their time taking turns to describe their writing programmes with the aim of promoting quality writing. Defining quality of teaching process or student outcomes was left to individual teacher judgement because all programmes described were treated as equally effective. Belmont focused on expected lesson sequences and Bledisloe talked about classroom organizational problems when implementing the literacy programme. Bankside was different in that they had achievement data present at their meetings, but they spent most of the meeting time discussing how to interpret the data. Although it was benchmarked, the teachers had difficulty understanding the meaning of the benchmarks. Neither the adequacy of the students' progress nor the implications for teaching were mentioned during the meeting.

In Bellview, the Group one school from which illustrative examples are selected, the focus of the meeting was to improve programme implementation by developing greater consistency across the classes. The specifics of

how the programme was implemented was essentially the group's choice provided they all taught the same way. Nothing was imposed.

> I've been talking to L [a teacher] and we think that some of us are using the little white boards and some of us are using paper for word work. There are some other little differences too. We thought it's probably best if we all do the same thing. I want to spend some time just talking about it to see what you want to do.

This emphasis on consistency was embedded in the meeting analysis in Year 2 when nearly a third of the time was spent organizing classroom observations to determine how the programme was being implemented in each class.

The literacy leader did present achievement data at the meetings but the way they were presented and the associated meeting activities were very different from those in Group two. The students' scores from all grade 1 classes were aggregated to indicate the percentage of students reading above, at, or below grade-level expectations. The benchmarks used were the same as those in the Group two schools, but the absence of individual student or class-specific data meant that the teachers could not identify whose students were below grade level. The data showed that more students were below the benchmark near the end of the year than at the beginning of the year and the literacy leader had disclosed to the author prior to the meeting that she believed the reason for the decline in scores was a drift in the quality of programme implementation. She had called the meeting to discuss the issue. When presenting the information to the teachers, however, she did not identify her concerns immediately.

> What we're going to do today is I just wanted to just very quickly go through the latest bit of data—I've given you a copy but I know it's a paper war and just have a look at it today and if you don't want it just give it back to me. You don't have to file it or anything like that at this stage … it's just hand-written.

The embedded message for her teachers appeared to be that the data were not important, despite her private indication prior to the meeting that she believed them to be vitally important because they identified the decline in scores.

Later in the meeting she disclosed to the teachers her concern that reading levels had declined in relation to the expected levels for that time in the year. She had prepared some notes identifying possible reasons that she paraphrased for her teachers in the following quote. In this statement, only two of the seven reasons given for the decline in scores reflected her concern about non-implementation of the programme as taught in the professional development.

> I've put some of the reasons why [the achievement was declining]—and I'm really, at this stage just looking at why are there still such a large percentage of children under average. The most obvious one is the large classes in the second half of the year, that we finished the professional development in July and weren't given that intensive fortnightly burst of keeping us on track all the time. … I wasn't monitoring as closely in the second half of the year as I was in the first half of the year. We had all those timetable things and a million others. Teachers moving away from the programme because it was sort of an

> experimental time and we wanted to just try other things and get new ideas from different courses and things and putting those into the literacy sessions. I added parents in there. I don't know whether you agree with that or not. But maybe parents being unsure of how to support what we were doing at school back at home still. Absences is another good one. Can anybody think of any other reasons why it might be happening?

Not surprisingly, her invitation to the teachers to identify further reasons did not elicit her hoped-for response of a classroom focus. For example, one teacher responded in the following way:

> Well, I still would come back to the same barriers that we know exist. Are they having breakfast? Are they sleeping? Are they coming with the right clothes? I mean those all are factors especially for these kids that are disadvantaged to begin with. If that hasn't changed, then maybe it isn't just their reading but their education in general could still be down here so I still feel that those—those physical aspects of it as still a barrier to those kids moving up. … I'd also just be interested to know if those kids that we have seen as a success—did they go to pre-school or were they non pre-schoolers?

The literacy leader did not challenge these types of statements. Rather, she replied, 'I haven't done that analysis yet'.

From a distributed leadership perspective, the different kinds of visions in the two groups of schools were conveyed through a complex interactive web of leaders, followers, and artefacts that did not operate independently of one another. In the case of Bellview, the form of the artefact, in this case student-achievement information, the leader's anticipation of the followers' responses, the followers' diversion from the leader's agenda all came together to create a situation that failed to develop a coherent vision of what they wanted to achieve or how they might achieve it.

When the meeting activities changed in Year 3 in the Group one schools, to more closely resemble those of the two high-achieving Group two schools through a close analysis of individual student achievement against national benchmarks (see table 3), the same literacy leader presented the data this way:

> This is a valuable time—collecting all that data in and just looking at it. Although it is a pain getting it ready, it is the only way we are going to make a difference. I will give it out to you in a minute and you can have a look to see in your class who is below and who is above [the national benchmark] and look especially at the ones just below and think 'What am I going to do to make sure they are not below next time'.

Each teacher then identified the students of concern with a follow-up discussion of how they might best be assisted. When the author asked about the absence of discussion about barriers external to the teacher and school, the literacy leader replied: 'They just disappeared, they never come up. Once we started looking at the data in this way, nobody mentions it any more'. A different form of the artefact combined with different leadership behaviour created a situation that elicited very different response from the followers.

Interviews with the teachers following the meeting indicated how differently they now perceived the situation and how these perceptions, in turn, impacted on their activities:

> Well I keep saying the word focus … If you don't have that focus, well then another few weeks go by and things can crop up, like you can do some folk dancing and a marvellous unit on something else. Now we know that every 5 weeks we are going to look at the data, and so you don't let reading go, you let other things go, but you don't let that go. … We used to think about getting through the day, keeping the room tidy, having a quiet class. At the end of the day, we would go home with a warm fuzzy feeling. 'Oh, that was a good day. Maybe I will do some more of that tomorrow'. I think the focus has come right back to 'what have I done today in reading today, who is moving and who isn't moving and why aren't they moving'. That is what you are taking home in your head.

By situating leadership activities in an interactive web of actors and artefacts, rather than focusing on the attributes of a particular leader, a rich picture of the causal connections between leadership activities and the visions teachers held for students and their responsibilities is conveyed. These visions were rarely stated explicitly, but rather embedded within the activity. The meeting analysis in Bellview over the different years showed how it was possible to change the activities and the collective vision of the team through an analysis of the situation. A focus on personal characteristics or articulated visions or decontextualized tasks would fail to capture the essence of this change.

Social distribution of task enactment

The focus of distributed leadership on interactions among tasks, relationships, and artefacts makes analysis of these separate attributes rather arbitrary. While I have made some reference to the social distribution of task enactment, I will now describe additional aspects of the social relationships between the participants, paying particular attention to Spillane and Sherer's (2004) concept of 'stretching' activities over people.

In the Group two schools, the activity of analysing data and understanding the instructional implications were 'stretched over' the principal, literacy leader, and teachers. The literacy leader effectively acted as a boundary-spanner between the other two parties. I will describe these boundary-spanning activities in the first part of this section. I will then discuss the issues around developing teacher leadership. Thus, a central concern of distributed leadership is how it is exercised by those without formally designated roles (see e.g. Wenger 1998, Barth 2001, Day and Harris 2002). Expertise rather than formal position should form the basis of leadership authority and this type of leadership often resides within the larger professional community of teachers (Wenger 1998, Day and Harris 2002, Copland 2003). Therefore, I focus on how teacher leadership was developed in the schools by following through on some of the themes presented above in Bellview and Allendale. The final part of this section will examine the relationship between leaders and followers. Earlier formulations of leadership that focused on the individual leader were based on an implicit assumption that it was the role of the leader to influence followers. With more studies of micro-politics of leadership situations, it became apparent that followers also influenced leaders

(Smylie and Hart 1999). A distributed leadership perspective assumes permeable boundaries between leaders and followers and positions followers as an essential constituting element of leadership activity (Gronn 2003, Spillane and Sherer 2004).

Boundary spanning

An obvious potential problem with distributing leadership is the possibility of developing incoherence within an organization. Those to whom leadership is distributed may have different agendas from the 'official' leaders and ensuring coherence within schools can be a defining issue in the success of school improvement initiatives (Bryk 1999). What was of particular interest in this study was how the literacy leaders acted as boundary-spanners between the principal and the teachers and the ways in which these activities impacted on the coherence of beliefs and activities within the school.

Although, when asked directly, all principals expressed the belief that improving student achievement was an important focus of their efforts, the main differentiating quality in the two groups of schools related to implicit beliefs about professionalism in pursuit of that goal as evident in their activities. A theory-in-use analysis was more telling than an espoused-theory analysis. In the Group one schools, professionalism was defined through the meeting activities as essentially trusting teachers to make sound judgements to implement programmes well, and giving them sufficient support to be successful. In the Group two schools, professionalism was defined in terms of having a positive impact on student achievement. Programmes were the *vehicles* for achieving this outcome. These differences in beliefs were evident in the principals' activities in relation to supporting the programme and how they judged its success. In Years 1 and 2, remarkable consistency existed between the principals' beliefs and activities and those evident in the meetings analysed above, even though the principals were not physically present. This consistency, once again, will be illustrated using data from Bellview and Allendale as representative of others in their group.

Guided by the recommendations of the literacy leader, the Bellview principal approved substantial classroom release time from teaching activities for the teachers to undertake professional development. He trusted the literacy leader's professional judgement because he knew little about junior-school reading and did not feel confident to make a judgement call. He received reports from the literacy leader on student achievement, but said that he did not feel qualified to interpret them. When I asked him how he would judge the success of the programme, he replied with 'I guess that you can judge a programme by the attitude of staff, and they do feel comfortable'. Consistent with these views was his belief that his role was to 'support the teachers and celebrate their successes', which he did by providing the necessary resources and making statements at staff meetings about how much he appreciated the teachers' efforts and commitment. The principals from the other Group one schools described similar actions focusing on staff satisfaction and support.

It is not surprising that the meetings referred to above focused on supporting teachers to implement the programme well and that the literacy

leader in Bellview was so tentative about her requests for change. Other literacy leaders in Group two schools were similarly tentative. They spent many hours discussing programme implementation, but no rules were ever laid down about how the teachers should teach in any of the Group one schools.

The literacy leaders in the Group two schools also acted as effective boundary-spanners between their principals and teachers in Years 1 and 2, but the message about what was involved in being professional was different. Both Group one principals received and analysed student achievement information, and were very aware of trends in the data. The principal in Allendale had taken part in the professional development herself in order to develop a good understanding of the programme. She had previously taught junior reading and felt confident in this leadership role. She occasionally attended the team meetings when student achievement was discussed so she could 'understand how things were going and the difficulties the teachers were experiencing' and would be in a better position to support the teachers. She had more limited views on teacher judgement. She first wanted the teachers to understand how to implement the programme because it had proven success in her view. Then, if they wanted to make changes they could experiment, but effectiveness would be assessed against student achievement. The teachers reported a similar belief but had not wanted to change anything 'because it worked'.

In both groups of schools in Year 2, therefore, all literacy leaders were effective in their boundary-spanning activities in the sense that they achieved coherence between the principals' beliefs and activities and those of the teachers. This coherence, however, was differentially effective in terms of gains in student achievement.

Effective boundary-spanning and coherence, however, can be very fragile. Any changes in the social structure can impact on the coherence and effectiveness of the leadership activity. Thus, in Year 3, the Allendale principal left and a new principal was appointed. The literacy leader was no longer able to act as an effective boundary-spanner because the new principal held very different beliefs about professionalism and appropriate associated activities. She expressed a belief that the literacy leader was ineffective in her role, and explained it like this:

> An effective teacher doesn't slavishly follow one programme, like … [the literacy leader] is doing. She should go to lots of different courses, then develop a programme to meet the needs of the children she is teaching. It should be a combination of many programmes. I have tried to get her to think about other ways of teaching, but she won't listen. She keeps saying she wants to do just this programme.

Reading scores declined significantly in Allendale in Year 3. The principal was unaware of the decline, but the literacy leader was acutely aware. For her, the blame was placed squarely at the door of the new principal: 'She keeps taking away our literacy [instructional] time. This term we've lost a third of our literacy time because she has organized other things [school events]. She doesn't respect it like … [the previous principal] did'. The principal denied the accusation and it was impossible to verify it independently. The similarity of her beliefs about professionalism to those of the Group one principals,

however, was obvious. Being professional was about preferred programme implementation, not the impact of that programme on student achievement.

The changes in Allendale highlighted the fragility of the effectiveness of distributed leadership and boundary-spanning activities. Under one principal, the literacy leader was highly effective. Coherence was maintained and student achievement was high. Under another principal, her authority and effectiveness were undermined dramatically and conflict came to dominate the social interactions and relationships.

Teacher leadership

Teacher leadership has been promoted as a way of developing organizational capacity (Sergiovanni 1988, Lambert 1998). While distributed leadership among teachers may be desirable, some caution needs to be sounded about the potential difficulties involved. Although formally appointed leaders do not automatically command respect and authority, teacher leaders may be particularly vulnerable to being openly disrespected and disregarded because they do not carry formal authority. On the other hand, nomination of teacher leaders by colleagues may not realize potential expertise within the group because colleagues may select their leaders using other criteria. Each of these issues will be discussed in turn through two vignettes of activities in Allendale and Bellview.

In Years 1 and 2, Allendale actively distributed leadership for successful programme implementation over teachers as well as designated leaders. During the meetings, the literacy leader frequently invited other teachers to offer ideas and assistance. Many times these activities resembled the description by Spillane *et al.* (2004: 18–19) of 'the collective cognitive properties of a group of leaders working together to enact a particular task' as different teachers took leadership roles in assisting their colleagues to reach the common objective of raising the achievement of the slow-progress students. This collective leadership and responsibility is illustrated by the response of the literacy leader when one teacher indicated that she needed assistance with the slow-progress students: 'Be thinking team about the kind of help that we may be able to offer'.

Leadership in this school was also assigned more formally to particular individuals. The achievement data showed that one teacher was particularly successful in raising the achievement of students in her class and her advice was often sought. One strategy involved other teachers observing in her class and receiving coaching from her. The grade 1 teachers expressed how much they valued such opportunities.

The success of such a strategy, however, is dependent on the social context, not just the qualities of the leader in relation to the task. The impact the grade 1 teachers were having in raising student achievement led the principal to send the grade 2 teachers to the same professional development in the first half of Year 2. Many experienced implementation problems so the principal decided to release the proficient grade 1 teacher from teaching duties each morning to assist the grade 2 teachers. These teachers, however, were not receptive to her expertise. As she explained the reception she

received: 'I go in there [grade 2 classrooms] and they say, "Well this child can't read and because you are so good you can teach him". I want to help them with their teaching, but they don't want to know. They just want me to take the kids out [of class] and fix them.'

The tension between the grade 1 and 2 teachers was no doubt caused partly by the attention and praise given by the principal for the success of the grade 1 students the previous year and the implied criticism of the poor results achieved in grade 2. When asked by the researcher, the grade 2 teachers explained that they believed the grade 1 teachers exaggerated the reading scores and that the new programme had little merit. Needless to say, the grade 2 teachers welcomed the difficulties that arose between the new principal and the grade 1 literacy leader in Year 3.

An alternative approach that could overcome the kinds of difficulties experienced by the designated teacher-leader in Allendale might be to allow teachers to seek their own assistance from respected colleagues or create forums for this to happen, which occurred in Bellview. The teachers were encouraged by the principal and literacy leader to seek assistance from their peers. When they were asked in the interviews whom they believed to be the most effective grade 1 teacher, two nominated one person and two others different people. They also all indicated that they believed their nominated person had leadership qualities and that they regularly discussed programmes and sought advice from them. The informal leadership networks appeared to be working well, no teacher indicated that they felt alone or unsupported. Each teacher blamed others for the declining achievement patterns because they believed that their own, and the nominated person with whom they discussed their programmes, were teaching effectively.

The problem identified with this informal system based on existing respect was that advice was sought most frequently from ineffective teacher leaders. The most frequently nominated person was quoted above as believing that the main achievement problems were caused by the students' home and educational backgrounds: 'Are they having breakfast?', 'Did they go to pre-school?'. This teacher had a particularly strong influence on, and provided a great deal of support to, a newly qualified teacher who was experiencing both management and instructional difficulties in her classroom. Causes external to her teaching competence were an attractive option to consider. These vignettes from Allendale and Bellview indicate that one of the challenges in developing teacher leadership is to integrate leadership qualities of acceptance by followers with expertise in the particular area because followers construct leadership activity as much as the other way around. Neither acceptance nor expertise guaranteed the other quality and their integration was not satisfactorily achieved in any of the schools. In this next section, I examine the issue of the reciprocal relationship between leaders and followers more closely.

Relationships between leaders and followers

When leadership is viewed from a distributed perspective, the analysis of power relationships inevitably changes (West *et al.* 2000) and distinctions

between leaders and followers blur (Gronn 2003). This section examines this reciprocal influence between leaders and followers in Bellview.

In the section above describing embedding of visions in activities, a quote from the literacy leader in Bellview illustrated how she disguised her beliefs that poor programme implementation was responsible for the decline in test scores by listing factors outside of the classroom. During an interview after the meeting, she expressed her frustration that the discussion was dominated by these external causes. The reason she gave for not challenging the teachers was as follows:

> *Literacy Leader*: That discussion—it coming in about no lunches and all that sort of thing and I do remember trying to cut that off because I think we're past that. We've been through all that blame sort of thing.
>
> *Researcher*: What stopped you from saying something like that?
>
> *Literacy Leader*: Probably because I sympathize with how they feel because it shows things that are a reality for some children and I want to kind of say 'Yes' and acknowledge that we've got to move on from there. … There are a group of teachers that are like that and it's almost like 'Well that's where they're at at the moment'. I'm hoping that people will come to a natural conclusion of getting past that.

When she changed her meeting activities in Year 3 to focusing the meeting on identifying and targeting failing students, she no longer allowed herself to be so influenced by the teachers. She explained it like this:

> While I still try to sympathize with the problems the teachers are having, I know that if we want to raise achievement we have to get past all that. Since we changed focus, it never comes up about blaming kids and homes. The teachers are now focused on what they can do. I don't know how it happened, it just happened.

In Year 2, the leadership activity in the meeting was focused on the teachers, their beliefs, and their preferences. Trying to shift them towards a different set of beliefs, together with the hope of '*getting past*' that left the leader in a position of being led by the followers. How she acted was determined largely by the teachers' responses and she felt powerless to change their thinking or actions until they were ready. In Year 3, when the activity was more explicitly focused on raising student achievement, followers influenced the leader only to the extent of providing the support needed to reach agreed goals. By using student achievement (rather than teachers) as the reference point and structuring the meeting activities around the data, divergence from teaching and learning issues was constrained, and the relationships between leaders and followers changed. This example illustrates how different forms of artefacts can exert a powerful influence on other attributes of the situation, and it is a more focused analysis to which I turn next.

The use of artefacts in distributed leadership

From a distributed leadership perspective, artefacts and how they are used are a constitutive part of leadership activities. Spillane *et al.* (2004: 23) refer

to artefacts as 'externalized representations of ideas and intentions' and include a range of artefacts in their definition, including materials, such as memos; structures, such as timetables; and symbols, such as language. The use of language as an artefact to represent central ideas has been illustrated in the previous sections.

In this section, I focus on achievement data as a material artefact and how it shaped and was shaped by the leaders. Rather than reiterate how these data were 'stretched over' leadership activities, I am taking a slightly different perspective on the role of this artefact. First, I examine how the form of the achievement data and the conversations around it served to either integrate it with or decouple it from instruction. Secondly, I discuss briefly how artefacts that are stretched over functions and roles might need to change in form if they are to be effective in spanning boundaries between principals, literacy leaders, and teachers.

Forms of artefacts, instruction, and spanning boundaries

Artefacts can both enable and constrain practice (Spillane *et al.* 2004). The presence in the meetings of benchmarked individual student achievement information that could be compared across classes did both these things in the Group two schools in Years 1 and 2 and all schools in Year 3. As noted above, the artefacts constrained the meeting activities in the sense that they focused on students, their achievement, and the teachers' actions associated with that achievement. However, the achievement data also enabled practice, in that they served as the basis of the discussion on how to teach the students more effectively. One of the reasons that the meeting and related activities could reasonably be associated with improvements in student achievement is that the activities and artefacts were closely integrated with instruction. The following quote from a teacher at Bellview in Year 3 illustrates how the 'X' on the scatter plot representing children's progress triggered a complex web of cognitions about children, their progress, how that progress fitted with others in the group, and what actions she could take next:

> *Teacher*: I find that it has been quite beneficial because the graph is marked for each child. I can actually see where they're at, whether they are above the line or below the line [i.e. the national benchmark]. So it's really looking at each individual in my classroom, so I can see what I need to do. Like we spoke now [in the meeting], I look at which ones I should be moving above the line and work with those particular children in the group
>
> *Author*: They're only marks on a graph. Those little crosses—they don't tell you how to teach.
>
> *Teacher*: But you the teacher knows the children, so you're basically linking the graph and what you know about your children. Do you know what I mean? It is different for you because you're looking at it just as Xs. But for me as a teacher and my class, I'm linking the Xs to children. Although Louis is at red level I know he's going to be moving faster than the other two in the group. … And I think about the [teaching] prompts I'm using, because each level has its own prompts. So you see if I'm going to be working at Level 1, I know that these are the prompts that I must be using at this particular level. And if I can

> see that one child in that particular group is able to move a bit faster than the rest of the group. I can say 'OK, I've got another group at Level 3 and this child is at the end of Level 3 so I can move her up to that group'.

In contrast, the form of the achievement data in Year 2, in those Group one schools that used them, were irrelevant to the teachers' practice when the data were combined for all students. In Bellview, for example, where the data were presented as a summary table of percentage of students below, at, and above expectations, they had little meaning for the teachers. By collating the data across all students, the teachers' primary interest of 'my students in my class' was lost and no relationship to teaching was made.

The forms of material artefacts need to be different for those with different task responsibilities if they are to be useful. In this study, the achievement data needed to be analysed one way for teachers and another way for principals if they were to be useful in their different roles. Given the boundary-spanning function of the literacy leader, it would be her responsibility to make the necessary adjustments.

In Avonside and Allendale in Year 2 and all schools in Year 3, the teachers had available detailed scatter plots that identified individual students' reading levels, from which they could make various comparisons. This level of detail, however, was inappropriate for a principal whose function was to understand the picture of the whole school at each grade level. A key boundary-spanning task for the literacy leader was to modify the artefact to enable the principal to perform more macro-level tasks by summarizing the data appropriately.

Modification of artefacts to meet the task requirements for people performing different organizational roles may appear an obvious requirement, but it was not apparent in any of the Group one schools in Year 2. When achievement data were analysed, they were presented in the same form to people having different functions. By changing the form of the data in Bellview, and the other Group one schools in Year 3, they became more meaningful for the teachers who were then able to use them to integrate them into their practice.

Conclusions

The 'heroic' leaders in this study were the literacy leaders who engaged in leadership activities that assisted the teachers to question and change their literacy instruction for those students who were not succeeding. They were not the principals. They were the same leaders who the year before had failed to accomplish this task, despite their best efforts. This 'transformation' could not be understood if leadership traits, behaviours, tasks, or artefacts had been analysed separately. The change involved a complex interplay among all these aspects, resulting in different leadership activities situated in a particular context. This activity proved to be the useful unit of analysis.

The descriptive framework of Spillane *et al.* (2004) provided an important set of constructs on which to base the analysis in this paper. Particularly

useful is their emphasis on activity and *how* it is stretched over people. The conceptual robustness of the framework has accommodated the shift from their descriptive work to the more normative position I have taken to examine the differential effectiveness of leadership. The dimensions of interest to most researchers who adopt a normative position—that greater distribution is more desirable than containing leadership within formally specified roles (Day and Harris 2002, Camburn *et al.* 2003)—is, however, different from the one I have adopted. Distributing leadership over more people is a risky business and may result in the greater distribution of incompetence. *I suggest that increasing the distribution of leadership is only desirable if the quality of the leadership activities contributes to assisting teachers to provide more effective instruction to their students, and it is on these qualities that we should focus*.

These qualities cannot be understood in isolation from the situation in which leadership is exercised. Leadership by its very nature involves others who are situated in a cultural, historical, and institutional setting (Spillane *et al.* 2004). The way followers interpret the situation and respond to the leader influences how leaders think and act. These reciprocal responses can have very different outcomes. The way in which artefacts are constructed and presented to followers also serves to shape different social interactions and outcomes, yet artefacts are rarely identified as a constitutive and influential component of leadership activity.

A second issue is the methodology used to investigate how leadership is distributed. If the *extent* of distribution is the focus, then survey reports are an adequate measure. However, if *quality* of activity and its consequences are of interest, it is difficult to develop an adequate understanding of that activity without observing it directly in order to understand the situation as it unfolds from the perspective of theories-in-use. In this study, observed activities were restricted to team meetings, and undoubtedly there were many other leadership activities in the schools that could have provided an even richer picture and moved our theoretical understandings further. Within the limitations of this research activity, however, some key ideas emerged.

The power of leadership activities in shaping teachers' visions for and expectations of student achievement was apparent in the different schools and phases of this study. Changed activities developed different visions about what was possible in tackling the problems of student under-achievement. By externalizing the reference point for the meetings from teachers' beliefs and preferences about a generalized problem of under-achievement to concerns about the achievement of individual students in their classes, solutions to the problems became manageable. The solutions made sense to the teachers within their existing knowledge and experience (Spillane *et al.* 2002). They knew about teaching individual students and, with assistance, improving achievement became possible. When the meeting activities were structured in this way for the teachers, blaming the problems and looking for solutions outside of the classroom disappeared. The vision-in-action, as evidenced in the meetings, became far more powerful than any written statements of desirability.

Boundary-spanning by the middle managers provided some interesting challenges. In many ways it was up to these key people to transform, through the use of language and material artefacts, the macro-functions

undertaken by principals into a meaningful form so teachers were able to translate them into the more micro-functions of teaching students. One of the challenges they faced was to change the form of the artefacts, in this case student achievement data, to meet task requirements. When principals and teachers received the same form of student achievement information, for example, neither made use of it in many of the schools. For the teachers, in particular, the achievement data needed to be in a form that allowed them to integrate the information into their instructional practice. This form was too detailed to be useful for the principals' macro-functions.

Another challenge was to achieve coherence across the organization in ways that promoted student achievement. While coherence was successfully accomplished in all schools in the early stages of this study, through the boundary-spanning activities of the literacy leaders, it was not always the kind of coherence that promoted student achievement. Accomplishing coherence and instructional improvement proved difficult and fragile.

Developing teacher leadership in ways that promoted student achievement, a goal for many advocates of distributed leadership (Southworth 1990, Leithwood *et al.* 1999), also presented difficulties. Teacher leaders with high acceptability among their colleagues are not necessarily those with expertise. Conversely, the micro-politics within a school can reduce the acceptability of those with expertise. More research is needed into issues and dilemmas related to teacher leadership and how they might be resolved, rather than assuming that distributing leadership among teachers develops instructional capacity.

Distributed leadership is a relatively new theoretical concept. Individual leaders, their personal characteristics and behaviour, the standards they should meet (Gronn 2003), and the influences they exert on followers (Camburn *et al.* 2003) have dominated the leadership literature. Yet, leadership has always been distributed within organizations; it is a little surprising that we have taken so long to recognize it and develop the associated conceptual frameworks. Having begun to do so, it is important that enthusiasm for the possibilities it may unfold does not mean we become blinkered to the limitations of the concept itself and our ability to think about it and outside of it. Grounding further research in empirical studies that chart the territory, as well as its inadequacies, is essential if distributed leadership does not just become another faulty conceptualization of leadership to be overtaken by the next set of ideas.

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Notes

1. Reliability between the two coders of greater than 85% was obtained for all transcripts. Disagreements in coding were discussed and resolved to the satisfaction of both coders.
2. The coding categories were designed to be mutually exclusive and a single code assigned to whatever length of text was relevant to that code. Typically the unit of analysis was a sentence or paragraph. Sometimes the same code applied to several paragraphs.
3. Pseudonymns have been used for all schools. In the interests of clarity, Group one schools all begin with the letter 'B' and the Group two schools both begin with the letter 'A'.

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