Gateways to Leading Learning
Taking a Distributive Perspective to Diagnosis and Design -
Leading and Managing Instruction, The Core Work of Schooling

James P. Spillane
We are pleased to introduce this new series of monographs as part of the ongoing collaboration between the Asia Pacific Centre of Leadership and Change (APCLC) and the newly established Hong Kong Principals’ Institute (HKPI). Both organizations are focused on promoting deeper understanding of school leadership through innovative research and to improved leadership practice in schools. We believe that working partnerships between organizations such as ours provide fertile tracts within which ways to more successful leadership can be explored, tested, practiced and disseminated in ways that neither partner can achieve individually.

We hope that you enjoy reading the monograph and that it in some way helps you reflect on what you do as a leader, regardless of where that is.

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James Spillane’s work explores the policy implementation process at the state, school district, school and classroom levels. He has worked to develop a cognitive perspective on the implementation process, exploring how local policy-makers, both administrators and teachers, come to understand state and national reforms. Spillane is also interested in organizational leadership and change; his work conceptualizes organizational leadership as a distributed practice involving formal and informal leaders, followers and a variety of organizational tools and artifacts. His most recent projects include a social network analysis of instructional advice structures in elementary schools, a study of how organizational routines enable and constrain practice in schools, and an examination of the selection and socialization of school principals.
Taking a Distributed Perspective to Diagnosis and Design

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INTRODUCTION

Instruction, classroom teaching, and student learning is the core work of schools – the technical core of schooling. We expect schools – teachers, school leaders, and students – to effectively and efficiently produce instruction by creating opportunities for students to learn through teaching, both inside and outside the classroom. Scholarship has suggested, for several decades now, that school leadership and management is critical for school improvement, whether those improvement efforts are orchestrated from inside or outside the schoolhouse.

In this monograph I sketch an agenda for rethinking the work of leading and managing instruction. Of particular note, I focus on leading and managing instruction, rather than school leadership and management, as a core element of my argument is that we need to work on anchoring research and development work on school leadership in instruction – teaching and learning. I advance my argument in four steps. First, I argue that we need to move beyond preparing school leaders to simply implement the designs of others—experts from outside schools, while not disregarding such expertise as some of it has considerable merit and usefulness in schools. Specifically, we need to embrace diagnosis and design as central activities in school leadership and management. For development work, this will entail preparing school leaders to be good diagnosticians and skillful designers. For research work, this will entail understanding the work of diagnosis and design in schools. Second, diagnosis and design work requires some sort of framework to focus and guide the work. Such a framework is essential for scholars, practitioners, and developers so they are working on roughly the same phenomena – so when they say they are engaging with school leadership and management, they roughly mean the same thing. I put forth a distributed perspective to frame and focus leadership and management work, but in doing so acknowledge that other frameworks are possible contenders for such framing and focusing work. Third, while taking a distributed perspective on school leadership and management may have intuitive appeal for scholars, practitioners, and developers, some recent empirical analysis suggests that the nature of the school principal’s work may both enable and constrain them from taking a distributed perspective. There are inherent tensions in the principal’s job with respect to taking a distributed perspective. Fourth, I argue that research and development work on what we term school leadership and management needs to focus on the core work of schooling – classroom instruction. I consider the entailments of focusing on leading and managing instruction in diagnosis and design work.
Embracing Diagnosis and Design as Essential for Leadership & Management

An implementation mindset often dominates professional preparation and education programs in school leadership and management. Pre-service and in-service school leaders learn about particular approaches to school improvement, school leadership styles, and management strategies. The expectation is that they will implement some combination of what they learn as practitioners in schools. Such an approach makes good sense: There is some evidence to support the efficacy of certain approaches and prospective or practicing school leaders should know about these approaches.

Still, an implementation mindset alone is insufficient for school leaders for several reasons. First, even if school leaders could rely on pre-packaged programs and remedies they would still have to select carefully from the various offerings in order to find something that works for their particular situation. To do so, school leaders will have to define the problems facing their school, come up with prognoses to address these problems, and then carefully select programs, strategies, and remedies that might be appropriate for their particular situation. Second, no program or approach is likely to work whole cloth or intact in most situations. Instead, school leaders will have to more or less tailor pre-packaged programs and strategies to fit their particular circumstance. Third, despite the bountifulness of pre-package remedies and approaches available, school leaders are unlikely to be able to rely entirely on the designs of others in addressing the needs of their particular schools. They are going to have to engage in constructing or designing some of their own solutions. Thus, an implementation mindset is insufficient on its own.
School leaders will also have to embrace a diagnostic and design mindset (Spillane & Coldren, 2011), and accordingly, leadership preparation and development programs should work to cultivate school leaders’ diagnosis and design skills. Diagnosis involves working out the nature of something and/or its cause. Such work is at the core of school leadership and management as leaders struggle to figure out things such as the meaning of declining mathematics test scores in upper elementary grades or a decline in the number of juniors in secondary or high schools actively pursuing college admission. Similarly, school leaders might grapple with a peak in teacher or student absenteeism or a lack of communication and collaboration among teachers in different grades or different subject matter departments. Grappling with the nature of problems such as these and then trying to figure out their root causes is the essence of diagnosis. It is one thing to convince one’s staff that a problem exists, but a different if related matter concerns convincing them of the cause of the problem. Thus, simply getting consensus on the existence of a problem only gets one so far; the crux of diagnosis is in defining the cause(s) of the problem and coming to agreement on a prognosis.

Falling test scores, rising absenteeism, and limited inter-grade or inter-departmental communication among teachers are not problems in and of themselves. Rather, these are simply data that school leaders use in diagnosing problems; data they use as evidence in support of a particular definition of a problem. People (not data) define problems and they sometimes use data in support of their particular problem definition or to refute alternative definitions (Spillane, 2012; Spillane & Miele, 2007). As several scholars convincingly argue, data and information are not the same as evidence (Majone, 1989; Phillips, 2007). Rather, we construct evidence when we marshal certain pieces of data and information (ignoring other pieces, either intentionally or unintentionally) to support a particular problem definition (Spillane & Miele, 2007). Readers might be forgiven for thinking otherwise given the hype about data-based decision-making in many countries. Diagnostic work is neither straightforward nor simple. It has technical (e.g., data manipulation), rhetorical (e.g., crafting arguments to support a particular problem definition over another), and political (e.g., building coalitions to support particular definitions, framing the problem) dimensions.
School leaders need to learn the skills necessary to be outstanding diagnosticians. But more is needed. One can crunch the numbers, marshal the data as evidence in support of a particular problem definition, and convince key stakeholders of the merits of one’s definition, but still get nowhere in ameliorating the problem. Diagnosis is just one step. Design is another.
Design is about purposefully and strategically shaping aspects of our situation – positions, organizational routines, protocols for practice, teaching assignments, and so on – to accomplish particular goals. Though most of us do not think of ourselves as designers, reserving that designation for the rarefied worlds of fashion, architecture, and engineering, design is an ordinary pursuit that most of us engage with in our everyday work. As Herbert Simon put it, “everyone designs who devises courses of action aimed at changing existing situations into preferred ones” (Simon, 1996, p. 111).
Some recent work underscores the centrality of design in school leaders’ work as they transformed aspects of their situation in order to change existing ways of doing school business. The design and redesign of organizational routines, for example, featured prominently in school leaders’ efforts to change school practice in response to both endogenous and exogenous pressures (Sherer & Spillane, 2010; Spillane & Diamond, 2007; Spillane, Parise, & Sherer, 2011). More specifically, school leaders worked to design and put in place organizational routines in their schools that were intended to transform school administrative practice by connecting it more explicitly with government policy and classroom instruction (Spillane et al., 2011).

Of course diagnosis and design do not always follow such linear pathways in the real world of schools. The theory and practice of diagnosis and design are not mirror images of one another. Designs sometimes come before diagnosis; in other words, designs go in search of particular problem definitions. Because diagnosis is more a process of constructing or defining problems, problems are sometimes defined in order to support particular designs. Further, school staff can use the same data and information to define problems in different ways (Hallett, 2007; Spillane & Diamond, 2007).
Even though relations between diagnosis and design may not be linear or straightforward, they do work in tandem, feeding in and on one another. Further, diagnosis and design work is ongoing in schools and prompted by a mélange of things – unexpected situations, declining productivity, external policy pressures, falling student enrollment, and so on. Focusing the work of diagnosis and design necessitates a taken as shared conceptual lens or analytical framework. More often than not, such frameworks are left implicit – never openly discussed or debated – often for good reason. I contend that making the analytic framework explicit is essential in order that those involved in the work of diagnosis and design are roughly on the same page - have some taken a shared understanding of the phenomena they are working on diagnosing and designing in the first place. An analytical or conceptual framework works as a lens that focuses our observations and analyses on some features of leadership and management and backgrounds others.
TAKING A DISTRIBUTED PERSPECTIVE IN DIAGNOSIS AND DESIGN WORK

There is no shortage of analytical or conceptual lenses for school leadership and management. Perspectives on leadership (and management) are plentiful – transformational leadership, democratic leadership, shared leadership, transactional leadership, distributed leadership, and the list goes on. A particular dominant perspective, despite several decades of empirical research that questions its legitimacy, is the “heroics of leadership paradigm” (Yukl, 1999). In this framing, the work of leadership (and management) is equated with the actions or behaviors of a hero or heroine, typically the school principal, who redeems or turns around a failing school. Accounts from this perspective are especially popular in the literature on school leadership and management. Regardless of the frame, it is critical for researchers, practitioners, and developers working on school leadership and management to develop some taken as shared conceptual or analytical framework to guide their work and to make that framework explicit so that others can learn from their efforts.

For the purpose of this monograph I take a distributed perspective on school leadership and management and in this section I explore the entailments of this perspective. I am not arguing that this is the only viable framework, but rather making the case for having a framework and making explicit the entailments of that framework. As I have argued elsewhere, in my framing a distributed perspective involves two essential elements – the principal plus and the practice aspects.
The principal plus aspect, the aspect that gets most of the attention from scholars and practitioners, acknowledges that in order to understand the work of leading and managing we need to move beyond an exclusive focus on the school principal. To begin with, we need to consider other formally designated school leaders, both administrators (e.g., deputy or assistant principals) and specialists (e.g., coaches, mentor teachers, literacy coordinators).
Various empirical studies over the past several decades show how the work of leading and managing instruction in schools goes beyond the principal to involve other formal school leaders (Camburn, Rowan, & Taylor, 2003; Harris, 2005; Leithwood et al., 2007; MacBeath, Oduro, & Waterhouse, 2004; Spillane & Hunt, 2010; Spillane, Hunt, & Healey, 2009). One study of 100 geographically dispersed U.S. elementary schools, for example, found that responsibility for leadership functions was distributed over teams of leaders that typically ranged from three to seven people per school including principals, assistant principals, and coaches. Management, coaches and other specialists tended to focus on leading and managing instruction (Camburn et al., 2003). Another study of all 30 elementary schools in one U.S. school district found that including the school principal, the average number of full-time formal leaders per school was 3.5 (Spillane & Healey, 2010; Spillane, Healey, & Kim, 2010). Factoring in individuals who had classroom teaching responsibilities along with leadership responsibilities increased this number substantially. From a distributed perspective, failing to focus on and engage with the work of these other formally designated leaders is problematic. Moreover, an important consideration is how the work of leading and managing instruction is stretched over or arranged among these multiple formally designated leaders.

In addition, the principal plus aspect also presses us to allow for the possibility that individuals with no formal leadership or management designation may be important in leadership and management work. Specifically, classroom teachers with no formal leadership position may be especially instrumental to the work of leading and managing instruction in schools. Some individuals who took responsibility for leading and managing instruction had no formal leadership designations; they were informal leaders and relevant to understanding school leadership and management work in the school studied (Heller & Firestone, 1995; Spillane & Diamond, 2007; Spillane & Healey, 2010). Studies in the U.S. and elsewhere show that teachers with no formal leadership position as well as school district personnel and external consultants also take responsibility for leadership and management work (Harris, 2005; Heller & Firestone, 1995; Leithwood et al., 2007; Portin, Schneider, DeArmond, & Gundlach, 2003; Timperley, 2005). In this way, the principal plus aspect calls our attention to both the formal organization and the informal organization.

An exclusive focus on the principal plus aspect, however, though necessary is insufficient on its own when taking a distributed perspective. The second aspect – the practice aspect – is essential if one is serious about framing leadership and management from a distributed perspective.
The practice aspect of a distributed perspective brings the practice of leading and managing instruction to the forefront, making it the central unit of analysis or concern. We can change structures such as formal positions and their job descriptions or organizational routines, but these changes matter in the extent to which they transform practice on the ground inside schools. Practice, from a distributed perspective, is not the same as the actions, behaviors, or even styles of individual leaders. Rather, practice is defined, takes shape or form, in the interactions among school staff as framed and focused by aspects of their situation (Spillane, 2006). This is not an easy adjustment in perspective for most of us, as we typically equate practice with the actions or behaviors of an individual. But from a distributed perspective, such an individualistic notion of practice is problematic because the practice of school leadership and management is framed as fundamentally social and interactive. It is not simply what the individual does that matters but what they do in interaction with others (Spillane, 2006). Thus, while actions are necessary in understanding practice, they are insufficient – it is essential to get to interactions – the back and forth among school staff members. A principal or mentor teacher acts, but another school staff member reacts, and still others react to that person, and it is in these interactions that practice unfolds in schools. From a distributed perspective, then, practice takes shape in the interactions among school staff as framed and focused by aspects of their situation.

From a distributed perspective, the situation takes on an especially important position as it influences practice from the inside out, rather than the outside in.
Thus, the situation is important to understanding practice in a particular way as it is framed as a constituting or defining aspect of practice. Organizational routines such as grade level meetings or formal positions such as grade level teaching assignments, for example, fundamentally influence which school staff members interact with one another (Spillane, Kim, & Frank, 2012). The protocols (e.g., teacher evaluation protocols) we use when interacting with one another are not incidental or enablers of individual practice – rather they define the very nature of our interactions by framing and focusing how and when we interact and about what.

A critical question is whether and how we might design practice. The short answer is that we cannot design practice because of its emergent and improvisational qualities. Rather, we can design for practice (Spillane & Coldren, 2011). More specifically, we can work to transform practice in particular ways by designing and redesigning aspects of the situation, a situation that is both constitutive of and constituted in practice, so as to enable new ways of interacting and constrain existing ways.
THE PRINCIPAL’S WORK: OPPORTUNITIES AND HURDLES IN TAKING A DISTRIBUTED PERSPECTIVE

It is easy for most practitioners, developers, and researchers to agree to take a distributed perspective in framing work on school leadership and management. Talk is easy. Practice is more difficult, especially in enacting a distributed perspective to diagnose and design in school leadership and management. Further, the prevalence of a distributed perspective in practice will depend in great measure on the school principal, the denotative leader of the schoolhouse.

Some recent work on novice principals over their first two years on the job suggests that the nature of the school principal’s job may both enable and constrain taking a distributed perspective to school leadership and management. The nature of the principals’ work, as captured in new principals’ emerging understanding of their new position, suggests conflicting signals about distributing leadership and management work in schools (Spillane & Anderson, under review; Spillane & Lee, in press).

Some aspects of the work and position, especially the volume, diversity, and Janus-faced nature of the work, appear to encourage a distributed perspective on leadership (Spillane, 2012, August). The volume of demands was a prominent theme in novice principals’ emerging understanding of their new position and the challenge of volume intensified over their first three months on the job. One might anticipate that the volume of demand would encourage principals to take a distributed perspective to the work of leading and managing instruction. But it was not just volume that new principals found taxing, but also the diversity of demands on them. Novice principals spoke of the diversity of the work their new job demanded, captured by several of them when they noted it’s like being ‘a jack of all trades’. The diversity of the principal’s work, coupled with the different knowledge one might need to know to perform these tasks, are conditions of the principal’s job that very likely encourage a distributed
perspective on school leadership and management. By involving others and dividing up responsibility, novice principals could potentially reduce the diversity of their work as well as the pressure to master such a vast body of knowledge. Another feature of the principal’s work as experienced by novices concerns its Janus-faced nature. Several novice principals talked about being ‘a chameleon’ - one that is subject to quick or frequent change especially in appearance, or a person given to frequent expedient change in character. One principal captured this most aptly when he noted:

It varies. A lot of it depends on the team. Sometimes you have to be a chameleon. ... some days, some years you have to crack the whip. Other times you can you know reflect or kind of relax and say ‘well that worked and let’s keep doing what we’re doing.’

The Janus-faced nature of principal’s work, as understood by novices, might encourage a distributed perspective on leadership on the part of principals in that being such polar opposites – different characters – is likely to put tremendous emotional pressure on school principals. One way for principals to reduce this emotional pressure is by working to engage others in the work of leading and managing instruction. While the principal might opt to be either the good cop or the bad cop, other leaders can take on the alternative role.
Still, other aspects of the principal’s job as experienced by novice principals may work to constrain them from taking a distributed perspective to school leadership and management. Most importantly, novice school principals’ sense of ultimate responsibility for their school may constrain them from taking a distributed perspective in school leadership and management. A consistent theme in new principals’ accounts was the shock of ultimate responsibility that came with entering the principal occupation (Spillane & Lee, in press). Several principals noted how the ‘buck stops here’, at the principal’s office. For example, George captures this sense of ultimate responsibility when he notes:

I’m responsible for the whole building of students and I’m ultimately—for most purposes—the end all, be all accountability person. Everything falls on me ... no matter what... One thing that really was smacking me in the gut Sunday night was the responsibility part. It’s like the ultimate responsibility ... all the people who work in this building—

their employment and welfare or their well-being as far as financially in other ways is dependent upon my successful leadership of this organization... there’s a lot of responsibility there.

For George, the shock that came with the transition into his new occupation was a sense of ultimate responsibility for the welfare of others. This was a prevalent theme among most novices in the study (Spillane & Lee, in press). Novice principals’ sense of ultimate responsibility very likely constrains them from taking a distributed perspective to school leadership and management (Spillane, 2012, August).
If principals believe that they are ultimately responsible for everything, or almost everything, that happens in their school then they are likely to be reluctant, or at least slow, to take a distributed perspective in leadership and management.

In novices’ emerging sense of their new position as school principal, then, we see tension – both enabling and constraining them from taking a distributed perspective in diagnosis and design. Some aspects of novices’ emerging sense of their new position – volume, diversity, and unpredictability – appear to encourage a distributed perspective. Other aspects, most especially novices’ sense of ultimate responsibility, appear to constrain taking a distributed perspective (Spillane & Lee, in press).
LEADING AND MANAGING WHAT

Over several decades those who work on school leadership and management, including researchers, practitioners, and developers, have afforded instruction a more central place in their work. This is a welcome development. Its origins can be traced at least in part to work on effective schools as well as work in the instructional leadership tradition (Hallinger, 2005; Heck, Larsen, & Marcoulides, 1990).

Still, much of research and development work on school leadership and management treats instruction as mostly an outcome variable. It fails to consider how instruction might be an independent variable, shaping the work of leading and managing instruction from the inside out. Some recent studies suggest that the practice of leading and managing instruction might differ depending on the school subject (Burch & Spillane, 2003). First, some empirical works suggest that formally designated school leaders’ cognitive scripts for their work appear to differ depending on the school subject (Burch and Spillane, 2003). Second, while school leaders work at coupling both language arts and mathematics instruction with school leadership, management, and government policy, the coupling mechanisms were different depending on the school subject (Hayton & Spillane, 2005; Spillane & Burch, 2006). Third, the density of advice and information interactions among school staff appear to differ by school subject, with language arts involving more dense interactions than mathematics (Spillane, 2006; Hayton & Spillane, 2005). Considering these findings, it appears important in our research and development work on school leadership and management that we take the school subject seriously, not just as an outcome variable but also as a predictor variable.
Beyond the school subjects that teachers teach and school leaders lead and manage, we can also fine-tune and sharpen our analysis of leading and managing by thinking more systematically about how we conceptualize instructional practice. Specifically, school leadership and management research does not systematically entertain the multiple dimensions of instruction—content coverage, teaching strategy, material usage, student grouping arrangements, and so on. More sophisticated conceptualizations of instruction are necessary in our research and development efforts on leadership and management in schools if we want to take seriously the core work or technology of schooling—instruction. Instruction is a social practice. Popular images and conceptions of instruction portray it as a relatively straightforward solo practice roughly equivalent to a teacher’s actions in the classroom. But such conceptions are limiting as they fail to recognize that teaching is co-produced by teachers and their students with particular intellectual and physical material (Cohen, 2011; Cohen & Ball, 1999). Teaching depends not only on the teachers’ skill and knowledge but also on the knowledge and skill of the students who co-produce teaching with their teachers.
Acknowledging the social nature of instructional practice has entailments for research and development work on leading and managing instruction. Relations between leadership and management and instruction, too often cast too narrowly on connections between school leaders’ work and teachers’ classroom work, may involve multiple avenues, including not only interactions with teachers, but also students and the materials they use in teaching. Thus, leadership and management activities may connect directly not only with teachers but also with students and teaching materials. Or, leadership and management may connect with different combinations of these core elements that define teaching practice, such as with both teachers and students or teachers and curricular materials (Spillane, 2006).
CONCLUSION

In this monograph I have worked to engage readers – be they practitioners, researchers, or developers – with an alternative approach to thinking about school leadership and management, one that is anchored in leading and managing instruction, the core work of schooling. Specifically, I argue for a diagnostic and design approach rather than relying exclusively on an implementation mindset. Further, I have outlined the entailments of taking a distributed perspective on leadership and management in doing diagnosis and design work.

In addition, based on evidence from a study of novice school principals, I have suggested that novice principals’ emerging sense of their new occupation appears to both constrain and enable them taking a distributed perspective to leading and managing instruction. Finally, I have argued that in thinking about leading and managing instruction, not only does instruction need to be central, but more sophisticated conceptualizations of instruction are essential that, among other things, take seriously the school subject matter nature of instruction.
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