

Managing Instructional Quality & Leading Instructional Improvement: Engaging with the  
Essence of School Improvement

James P. Spillane<sup>1</sup>  
Northwestern University

(Running head: “Instructional Management & Improvement”)

COPY: IN PRESS  
Not for distribution without author’s consent

---

<sup>1</sup> School of Education and Social Policy, 2120 Campus Drive, Evanston, IL 60208. j-spillane@northwestern.edu

## *Introduction*

School improvement and school effectiveness are big business. But, too often the essence of school improvement is lost in these endeavors. To improve schools and create effective schools, we have to engage earnestly with managing teaching and learning (what I refer to henceforth as instruction) and with leading instructional improvement. I intentionally focus on both management and leadership of instructional quality because the two are essential to school improvement. Though leadership and management are often portrayed as polar opposites (most of us have heard someone say, pejoratively she/he is ‘just a manager’), in reality leading and managing are close relatives; they work in tandem rather than as opposites on some fictional continuum. Whereas leadership refers to inducing, introducing, implementing, and institutionalizing change in instruction (and related practice), management refers to the maintenance of instructional quality. Improving schools and creating effective schools necessitates attention to both leading and managing practice. After all, it is imperative that we maintain the changes we work to introduce and implement over the long haul.

In this paper, I have two modest goals. First, I argue that leading instructional improvement and managing instructional quality in schools has to be fundamentally about infrastructure; that is, the school organizational infrastructure to support instruction and instructional improvement. Specifically, I challenge readers to get beyond the fixation with leading individuals—school leaders, teachers, students, and other school stakeholders—and acknowledge that the work of leadership and management also necessitates attention to infrastructure. I focus on the schoolhouse organizational infrastructure, though a similar argument can be made about school system infrastructure. Further, the school organizational infrastructure works in interaction with the school system infrastructure. Second, I argue that

efforts to lead and manage instructional quality and its improvement through the design of school organizational infrastructures have to be anchored in *instruction*. Most readers will automatically agree, yet I suspect few will have seriously contended with the entailments of anchoring infrastructure design in instruction. Too often we see instruction as simply the outcome or goal of our efforts to lead and manage instruction. It is! But it is also more. Specifically, school leaders must move beyond the mantra ‘it’s about instruction’ and grapple earnestly with the entailments of wholeheartedly embracing instruction, not just as an outcome of school improvement efforts, but as a key consideration or input as leaders design infrastructures to maintain instructional quality and lead instructional improvement. Instruction is not just the object of our work as school leaders, it is also the subject and when we consider it seriously it has major ramifications for how we go about the work of leadership and management, that is, the work of infrastructure design and redesign. This paper is organized around these two aims and concludes with some reflections on my musings.

### *Moving Beyond Individuals: Engaging with School Infrastructure*

Of course, people—teachers, parents, students, other stakeholders, other school leaders—are the key focus of leadership and management work in organizations. Leadership is after all fundamentally about a social influence relationship – influencing others to do things differently and/or preventing them from doing things in some way. People matter, both individually and collectively, to an organization’s productivity. Thus, it is to be expected that the work of leading and managing is very much about them. This is especially true in knowledge-intensive organizations such as schools where the quality of the organization’s work depends in great measure on the capability of individual teachers and school leaders. For several decades,

research has documented the importance of the quality of the individual teacher to student performance outcomes (Rockoff 2004; Rivkin, Hanushek & Kain 2005; Hanushek et al. 2005). Further, research has consistently shown that the capability of the school principal makes a difference to school productivity (Leithwood et al. 2004). Hence, a key component of leading and managing instruction centers on selecting, monitoring, mentoring, and evaluating staff. Agreed!

But as school leaders, focusing only on individuals is not only limiting, it also sets up leadership and management work as impossible endeavors. It is especially impossible for the denotative leader, the school principal, and despite the emergence of distributed perspectives on leadership and management, the heroics of leadership perspective continues to hold sway. Hence, it is essential in thinking about our work as school leaders that we get beyond individuals and also embrace organizational infrastructure, and more specifically, infrastructure design and redesign as a central pursuit in our efforts to lead and manage instructional quality (Spillane 2006; Spillane & Anderson 2014; Spillane & Lee 2014).

By organizational infrastructure I mean those structures that support instruction and efforts to maintain and improve instructional quality in schools. We might refer to this as the *educational* infrastructure so as to distinguish it from the more mundane (though important) aspects of the school organizational infrastructure such as building design. Educational infrastructure more or less enables (and often constrains) classroom instruction as well as efforts to maintain and improve the quality of teaching and learning. Most obviously, educational infrastructure includes such things as instructional standards frameworks that more or less specify what students should learn, to what level of mastery, and sometimes even teaching approaches or activities; instructional materials such as curricular materials and textbooks; and

formative and summative student assessments. These components of educational infrastructure will be familiar to most local education leaders as they are the primary means to not only guide teachers' classroom instructional practice but also, potentially, to enable its improvement by providing a common language and reference point for discussions among teachers about their teaching and student learning. In this way, these components of infrastructure can more or less enable schoolteachers and leaders to work together as a collective on maintaining instructional quality and enabling instructional improvement. They do not simply offer guidance to individual teachers about what to teach and how to teach, they also provide common artifacts around which teachers and school leaders can negotiate the meaning of quality instruction.

There are several other, perhaps less obvious (as they are often taken for granted), parts of the educational infrastructure in schools including organizational routines (e.g., grade level meetings, teacher hiring, teacher evaluations, learning walks, lesson study, and so on), formal positions (e.g., mentor teacher, coach, literacy coordinator), and tools of various sorts (e.g., teacher evaluation rubrics or protocols), to name just a few. These are critical not only because they potentially influence classroom teaching practice, but also because they structure interactions among teachers and school leaders about instruction and instructional improvement. They provide forums in which school staff can discuss instruction and its improvement.

Viewed this way, the work of leading and managing instructional quality in schools is fundamentally about designing and redesigning the various components of the educational infrastructure. To do this design work well, school leaders need to engage in systematic diagnostic work. Specifically, school leaders need to be continuously focused on whether and how the various components of their school's education infrastructure enable instruction in classrooms, maintains instructional quality, and contributes to improving instruction. It is critical

that school leaders ask some key questions about their school's educational infrastructure including: What is the theory of action behind a particular component (e.g., organizational routine such as lesson study or grade level meetings)? How might this component of the infrastructure enable instructional improvement? How might this component of the infrastructure inhibit instructional improvement? Further, school leaders have to attend to whether and how the various components of their school's educational infrastructure work in interaction to enable (or possibly constrain) instructional quality and instructional improvement.

A focus on educational infrastructure gets us beyond focusing exclusively on leading and managing individual school staff members in at least two ways. First, it engages us in building an infrastructure that can structure interactions among school staff about instruction independent of our one-to-one interactions with school staff as a school leader. Second, the infrastructure enables interactions among school staff about instruction even if we as school leaders are not directly involved in all of these interactions. This is key because there is considerable empirical evidence to suggest that teachers learn from their peers in schools (Jackson & Bruegmann 2009) and creating infrastructures to enable this peer learning is imperative. Indeed, there is empirical evidence to suggest that the educational infrastructure influences school staff interactions about instruction (Spillane, Kim & Frank 2012; Spillane & Hopkins 2013; Hopkins et al. 2013).

The design and redesign of educational infrastructure is difficult for several reasons. First, much of what constitutes educational infrastructure is invisible in everyday practice inside schools; it is only in times of exogenous or endogenous change or when a crisis stage in the organization disrupts business as usual that we take notice of the educational infrastructure (Star 1998). Second, the knowledge base on effective educational infrastructure design, in its infancy, is weak (Cohen & Moffitt 2009; Peurach 2011).

Still, we do have some ideas about the characteristics of an educational infrastructure that are likely to make it matter more to the day-to-day practice inside schools. Surveying the literature, at least three dimensions of infrastructure are likely to shape its influence on everyday practice related to instruction inside schools. First, the extent to which the educational infrastructure is anchored in instruction and instructional improvement is key. Often, school infrastructures have little to do with teaching and learning; instead they are designed to protect teaching, preserving it as an individual and private classroom practice. Failing to de-privatize instruction and make it a public practice and its improvement a school-wide endeavor such infrastructures can undermine efforts to manage and improve on instructional quality. Second, the extent to which the school educational infrastructure coheres around a vision for instruction – both what should be learned and how it should be learned – is essential. Infrastructures that are incoherent or fudge on (or fail to enable a dialogue about) the nature of quality classroom instruction are unlikely to influence classroom practice and efforts to improve it. Similarly and related, the coherence of the infrastructure around a vision for instructional improvement is also key. Infrastructures that offer incoherent or conflicting approaches to instructional improvement are unlikely to succeed. Third, the power and authority of the educational infrastructure is key. If school staff don't perceive the educational infrastructure as having both the backing of system and school leaders and buy in from their peers, they are unlikely to take it seriously and to engage earnestly with its guidance and suggestions for improvement.

*Engaging with The Heart of the Matter: Anchoring Leading and Managing in Instruction*

School leaders for the most part see their work as being fundamentally about instruction and its improvement. But instruction is a complex and multi-faceted practice. It is easy to say we are all about instruction. Of course we are! Grappling with the particulars of what that might entail involves much more than acknowledging we are fundamentally about whether students are learning, as measured by student assessments and attaining greatness in subsequent levels of schooling and work. Specifically, to lead and manage instructional quality and to build organizational infrastructures that support such work we have to get beyond simplistic, monolithic notions about instruction and acknowledge that instruction is not simply the object of our efforts but fundamentally shapes how we go about them. We have to consider at least three aspects of instruction in both our design and diagnostic work.

To begin with, teaching is a complex, multi-faceted practice; it is about what to teach, how to teach what should be taught, what materials to use in teaching it, how to group students for instruction, what levels of mastery of the material are acceptable for whom, and so on. Acknowledging the multi-faceted nature of teaching suggests that as we engage in designing infrastructures to support teaching, manage the quality of instruction, and lead instructional improvement we should consider how the various components of the infrastructure enable our instructional goals, not just in isolation, but in interaction with one another. What components of the school organizational infrastructure are intended to structure which aspect of instruction and, relatedly, instructional improvement? Do they do so in a roughly coherent manner? An organizational routine such as a grade level professional learning community, for example, might be designed to focus on pedagogical approaches but in practice focus mostly or exclusively on content coverage and curricular materials. If the various components of our infrastructure are not working together to support a coherent vision of what should be taught, how, and with what



instructional materials, it is unlikely that the organizational infrastructure will have a consistent and efficacious influence on classroom instruction. If, for example, some components of the educational infrastructure support an inquiry approach to mathematics instruction where both procedural and principled mathematics are valued whereas other components privilege an approach that centers on procedural knowledge and teacher-centered instruction, it is confusing for school staff.

In addition, teachers don't just teach; they teach mathematics, reading, writing, geography, history, and so on. Scholars of school leadership and management have paid limited attention to the school subject in their efforts to explore relations between school leadership and management on the one hand and classroom instruction on the other. This is unfortunate; because research on teaching and teachers' work suggests that the school subject is consequential. Secondary school teachers differ in how they think about teaching their subject including definition, scope, sequencing of material, and whether the subject matter material is static or dynamic (Ball 1981; Stodolsky & Grossman 1995). These differences are consequential for teaching practice, such as how teachers think about the control of content and curriculum coordination and standardization, and in turn mediate the influence of organizational infrastructure on classroom practice (Ball 1981; Ball & Lacey 2012; Grossman & Stodolsky 1994; Little 1993; McLaughlin & Talbert 1993; Siskin 1991, 1994). Although primary school teachers tend to be generalists rather than subject matter specialists, they also tend to think about the work of teaching differently depending on the school subject (Stodolsky 1988) and these differences are important considerations in teachers' responses to efforts to transform their practice (Drake, Spillane & Hufferd-Ackles 2001; Hayton & Spillane 2008). Indeed, how school leaders think about the work of supporting instruction differs depending on the school subject

(Deng 2009; Deng & Luke 2008; Spillane 2006; Spillane & Hopkins 2013). In thinking about leading and managing instructional quality, then, it is critical that we take seriously how the challenges are likely to differ depending on the school subject.

Finally, we can think about instruction as what teachers do, equating it with the behaviors of the individual teacher. But, instruction is a social practice, a co-production that unfolds in the interactions among teachers and students around particular material (Cohen 2011). Such a conceptualization engages with the collective nature of instructional practice. If as school leaders we think about instruction as a collective practice co-produced in the interactions between teachers and students around particular intellectual material, then we have to systematically examine the various ways in which the practice of leading and managing and our organizational infrastructure might (and might not) connect with the practice of instruction and its improvement. More specifically, what aspects of teaching (i.e., teachers, students, materials) are which components of the school's instructional infrastructure designed to connect with? Do they work as intended, coherently, and how do we know? Further, which components of the school's educational infrastructure simultaneously work on two or more of the key components of instruction (e.g., teachers and students)? Some aspects of a school's educational infrastructure focus on the quality of teacher practice (e.g., teacher hiring routine, teacher supervision) whereas other aspects focus on student learning (e.g., student summative or formative assessments). Still other aspects might focus on both the quality of teachers' work and student work together.

### *Conclusion*

To improve schools and to create effective schools we have to anchor our efforts in the core work of schooling: instruction. Doing so is more complex than it might first appear,

especially if we embrace the multi-faceted, subject specific, and collective nature of instructional practice and acknowledge to ourselves that instruction is not simply the object of our efforts as school leaders and managers but also the subject - a very powerful input into our diagnosis and design efforts.

We also have to acknowledge that the work of managing instructional quality and leading its improvement involves more than simply leading and managing individual school staff members, though that is key. We have to embrace school infrastructure design work that is essential for managing instructional quality and leading instructional improvement. The design and redesign of the school's educational infrastructure has to be at the core of leading and managing instructional quality in schools. To do this design work well, we have to engage in diagnostic work, figuring out how things work and how we might improve how they work so as to maintain and improve the quality of instruction.

## References

- Ball, SJ 1981, *Beachside comprehensive: A case study of secondary schooling*, Cambridge, University Press, Cambridge, UK.
- Ball, SJ & Lacey, C 2012, 'Subject disciplines as the opportunity for group action: A measured critique of subject sub-cultures', in P Woods (ed.), *Teacher strategies: Explorations in the sociology of the school*, Routledge, New York, pp. 149-177.
- Cohen, DK 2011, *Teaching and Its Predicaments*, Harvard University Press, Cambridge, MA.
- Cohen, DK & Moffitt, SL 2009, *The ordeal of equality: Did federal regulation fix the schools?* Harvard University Press, Cambridge, MA.
- Deng, Z 2009, 'The formation of a school subject and the nature of curriculum content: An analysis of liberal studies in Hong Kong', *Journal of Curriculum Studies*, vol. 41, no. 5, pp. 585-604.
- Deng, Z & Luke, A 2008, 'Subject matter: Defining and theorizing school subjects', in F M Connelly, M F He & J Phillion (eds.), *The Sage Handbook of Curriculum and Instruction*, Sage, Thousand Oaks, CA, pp. 66-90.
- Drake, C, Spillane, JP & Hufferd-Ackles, K 2001, 'Storied identities: teacher learning and subject-matter context', *Journal of Curriculum Studies*, vol. 33, no. 1, pp. 1-13.
- Grossman, PL & Stodolsky, SS 1995, 'Content as context: The role of school subjects in secondary school teaching', *Educational Researcher*, vol. 24, no. 8, pp. 5-23.
- Hanushek, EA, Kain, JF, O'Brien, DM, & Rivkin, SG 2005, 'The market for teacher quality', National Bureau of Economic Research, Washington DC.
- Hayton, P & Spillane, JP 2008, 'Professional community or communities? School subject matter and elementary school teachers' work environments', in J MacBeath & YC Cheng (eds.), *Leadership for learning: International perspectives*, Sense Publishers, Rotterdam, pp. 65-79.
- Hopkins, M, Spillane, JP, Jakopovic, P & Heaton, RM 2013, 'Infrastructure redesign and instructional reform in mathematics: Formal structure and teacher leadership', *Elementary School Journal*, vol. 114, no. 2, pp. 200-224.
- Jackson, K & Bruegmann, E 2009, 'Teaching students and teaching each other: The importance of peer learning for teachers', *American Economic Journal: Applied Economics*, vol. 1, no. 4, pp. 85-108.

- Leithwood, K, Louis, KS, Anderson, S & Wahlstrom, K 2004, 'How leadership influences student learning: A review of research for the Learning from Leadership Project', The Wallace Foundation, New York, NY.
- Little, JW 1993, 'Teachers' professional development in a climate of educational reform', *Educational Evaluation and Policy Analysis*, vol. 15, no. 2, pp. 129-151.
- McLaughlin, MW & Talbert, JE 1993, 'Contexts that matter for teaching and learning: Strategic opportunities for meeting the nation's education goals', Center for Research on the Context of Secondary School Teaching, Stanford, CA.
- Peurach, D 2011, *Seeing complexity in public education: Problems, possibilities, and success for all*, Oxford University Press, New York, NY.
- Rivkin, SG, Hanushek, EA & Kain, J.F 2005, 'Teachers, schools, and academic achievement', *Econometrica*, vol. 73, no. 2, pp. 417-458.
- Rockoff, JE 2004, 'The impact of individual teachers on student achievement: Evidence from panel data', *The American Economic Review*, vol. 94, no. 2, pp. 247-252.
- Siskin, LS 1991, 'Departments as different worlds: Subject subcultures in secondary schools', *Educational Administration Quarterly*, vol. 27, no. 2, pp. 134-160.
- Siskin, LS 1994, *Realms of knowledge: Academic departments in secondary schools*, Routledge & Falmer, Washington, DC.
- Spillane, JP 2006, *Distributed leadership*, Jossey-Bass, San Francisco, CA.
- Spillane, JP & Anderson, LM 2014, 'The architecture of anticipation and novices' emerging understandings of the principal position: Occupational sense-making and the intersection of individual, organization, and institution', *Teachers College Record*, vol. 116, no. 7, pp. 1-42.
- Spillane, JP & Hopkins, M 2013, 'Organizing for instruction in education systems and school organizations: How the subject matters', *Journal of Curriculum Studies*, vol. 45, no. 6, pp. 721-747.
- Spillane, JP & Lee, LC 2014, 'Novice school principals' sense of ultimate responsibility: Problems of practice in transitioning to the principal's office', *Educational Administration Quarterly*, vol. 50, no. 3, pp. 431-465.
- Star, S 1998, 'Working together: Symbolic interactionism, activity theory, & information systems', in Y Engeström & DS Middleton (eds.), *Cognition and communication at work*, Cambridge University Press, New York, pp. 296-318.
- Stodolsky, SS 1988, *The subject matters: Classroom activity in math and social studies*,

University of Chicago Press, Chicago, IL.

Stodolsky, SS & Grossman, PL 1995, 'The impact of subject matter on curricular activity: An analysis of five academic subjects', *American Educational Research Journal*, vol. 32, no. 2, pp. 227-249.