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Making Connections to Teaching Practice

The Role of Boundary Practices in Instructional Leadership

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Administrators, particularly those who engage in instructional leadership, play a key role in school improvement. Past research describes the types of activities instructional leaders engage in but has paid little attention to how they do it. The authors use the case of one school to unpack instructional leadership as a practice, paying close attention to the tools that constitute that practice, the contextual factors that help to define it, and how it affects teaching. The authors find that two kinds of tools—boundary practices and boundary spanners—play a significant role in constituting instructional leadership practice. Contextual factors, including student and staff composition and leaders' values and beliefs, define instructional leadership practice in important ways. Finally, policy implications are discussed.

Keywords: *instructional leadership; tools*

Administrators play a key role in school improvement. By working to expand the professional capacities of teachers and directing resources toward enhancing the quality of instruction, principals can help with the improvement process (Bryk, Sebring, Kerkow, Rollow, & Easton, 1998). But exactly how do school leaders, in their day-to-day practice, develop teachers' professional capacities? In this article, we argue that one way they do so is by establishing connections that bridge the gap between leadership

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practice and teaching practice, thereby initiating instructional leadership. Using a case study of one urban elementary school, we unpack instructional leadership as a practice to better understand what it looks like, focusing specifically on the tools that enable administrators to make connections to and shape teachers' instructional practices as well as the role of context in shaping instructional leadership practice.

In the current climate of high stakes testing and accountability policies, there is a big push to engage school administrators in leading instructional improvement. Policies are increasingly designed to forge stronger ties between school administration and the core technology of schooling. However, forging connections between administrators and classroom instruction is not easy. Historically, school principals have maintained a managerial imperative (Cuban, 1988), meaning they engage more in managerial work (i.e., those tasks such as budgeting and hiring that keep a school running) than in instructional work. Thus, how can school principals develop stronger ties to instruction? Current policies focus mostly on teacher evaluation, requiring principals to conduct a number of classroom observations each year to monitor teacher performance. But little more is specified in the policy realm of most states and districts, with some exceptions (e.g., District 2, New York).

The ability of administrators to connect what they do to teaching practice is especially salient in urban school districts where the pressure to improve instruction as reflected in probation policies is intense. A pervasive problem in many urban schools is that teachers are not convinced that students' poor performance is a function of their teaching. Students and their families are often used as scapegoats for poor performance. Under these circumstances, forging strong ties between school administration and teaching practice to improve instruction can be especially difficult. In this article, we show how the principal and teachers at one urban school overcame this difficulty.

Hillside Academy¹ is located in a large urban school district and serves 1,300 mainly low-income and minority students in Grades K through 8. For the principal at Hillside, instructional leadership constitutes a salient part of her leadership practice. Using boundary practices (i.e., routines that sustain connections between different communities of practice) and serving as a boundary spanner (i.e., an individual who connects one community to another; Wenger, 1998), the principal found numerous ways to establish and maintain key connections to teaching practice, thereby enabling her to keep a hand on the instructional pulse of the school. In addition, aspects of the local context in which the school is situated—including student and staff composition and the principal's values, beliefs, and goals—shaped instructional leadership at Hillside in particular ways.

In this article, we begin by defining what we mean by *instructional leadership* and give a brief overview of our conceptual framework and methodology. Next, we explore the case of Hillside, describing the principal's instructional leadership activities while paying close attention to her use of boundary practices and her own boundary spanning activities. We then unpack how particular facets of the context in which Hillside is situated help to define leadership practice. Finally, we discuss the implications of this case for education policy.

Conceptual Framework

School administrators and principals in particular are feeling increasingly overloaded by the multiple and varied demands of their job (Fullan, 1997) that include moral, interpersonal, managerial, and political demands, in addition to instructional ones (Cuban, 1988; Greenfield, 1995). Consequently, few teachers report that their principals talk to them about their instructional practices (Goldring & Cohen-Vogel, 1999). However, research has shown that leadership, and instructional leadership in particular, plays a pivotal role in effective schools (Krug, 1992). Specifically, principals in more effective schools spend more time in the direct classroom supervision and support of teachers and in working with teachers to coordinate the school's instructional program, solving instructional problems collaboratively, helping teachers secure resources, and providing staff development activities (Heck, Larson, & Marcoulides, 1990).

The practice of instructional leadership can involve a variety of activities such as defining an instructional vision or mission; managing the instructional program through teacher supervision, curriculum planning, program coordination, and monitoring student learning; and promoting a productive student and teacher learning environment through the promotion of professional learning among staff and the enforcement of academic standards (Cuban, 1988; Hallinger & Murphy, 1987; Krug, 1992). Broadly defined, we view instructional leadership as the practice of making and sustaining connections to the instructional unit (i.e., the interaction of teacher, students, and material) that enable instructional improvement (Cohen & Ball, 1998). In this view, instructional leadership practice addresses aspects of the core technology of schooling including curricular content, general pedagogy, pedagogical content knowledge (Shulman, 1986), or student understanding, and is a key piece of the school improvement puzzle.

School administrators "must integrate a variety of role orientations if they are to succeed as school leaders" (Hallinger, 1992, p. 41) and therefore

are typically responsible for performing the purely managerial tasks that are necessary to maintain school functioning and stability, such as planning, gathering and dispersing information, budgeting, hiring, scheduling, and maintaining the building (Cuban, 1988). Historically, school administrators have maintained a managerial imperative (Cuban, 1988), engaging more in managerial activities than activities directly related to classroom instruction. Hallinger (1992) argues that since the 1980s, not much has changed in the principal's role despite rhetoric touting the importance of instructional leadership. However, past research on instructional leadership illustrates that school administrators can and do engage in instructional leadership (Blase & Blase, 1999; Heck et al. 1990). Prior studies have produced lists of the behaviors of instructional leaders, those specific activities in which such leaders engage. But to completely understand instructional leadership as a practice, we need to understand how leaders do what they do as well as the role of context in shaping what they do. As Hallinger and Murphy (1985) point out, "Studies of instructional management should incorporate qualitative methodologies to generate richer descriptive reports about how principals manage curriculum and instruction. Particular attention should be paid to the contextual factors that influence principal behavior" (p. 238).

In this article, we argue that a big part of how administrators engage in instructional leadership is by using tools—externalized representations of ideas and intentions used by practitioners in their practice (Norman, 1988). We define *tools* as mechanisms that enable leaders to make connections to teaching practice. Tools mediate leaders' actions in and on the world and, as such, are a defining element of leadership practice (Spillane, Halverson, & Diamond, 2001). Even so, the role of tools in instructional leadership practice is conspicuously absent from the empirical literature on leadership in schools. Two kinds of tools figure prominently in our analysis of instructional leadership at Hillside. Specifically, boundary practices are routines that sustain connections between different communities of practice or constituencies (e.g., teachers and administrators), and provide an ongoing forum for mutual engagement in some activity (Wenger, 1998). Boundary spanners on the other hand, are individuals who serve as a connection between different constituencies (Wenger, 1998). In the case of boundary spanners, individuals rather than routines, constitute the mechanism that links leader and teacher practice.

Tools are an important part of the work context that helps to define instructional leadership practice. Past research has underscored the need to study leadership in context (Greenfield, 1995; Hallinger & Murphy, 1985). Context is important because leadership is not just a function of a leader's

individual personality or style but rather is distributed across leaders, potential followers,² and the situation (Spillane et al., 2001). Thus, we seek to better understand how leadership practice is situated in context.

Method

Hillside Academy was part of a larger study of leadership in eight urban elementary schools. Schools were selected for the study using a theoretical sampling strategy (Glaser, 1978; Glaser & Strauss, 1967) that considered several variables, including poverty level, racial and ethnic composition of the student population, degree of improvement in student achievement, and variation on different measures of school improvement. We selected Hillside to do an in-depth case study of instructional leadership because survey data indicated that Hillside teachers rated their principal as a strong instructional leader (i.e., the principal is highly involved in classroom instruction) and also as an inclusive leader (i.e., the principal encourages broad involvement in decision making). A case study is an appropriate design when exploring complex issues such as leadership processes (Yin, 1989).

Hillside Academy

Hillside serves a predominantly Mexican American and low-income population of approximately 1,300 students in Grades K through 8. Specifically, 95% of students are low income, 94% are Latino, and 5% are African American. Mrs. Nelson, a White woman in her late 50s, became the principal of Hillside in December of 1985. Four years later, she hired Mrs. Ruiz, a Latina in her early 50s, to fill the assistant principal position. The two women served as an administrative team for 10 years and established a definitive division of labor. Mrs. Nelson was responsible for numerous administrative matters, including “looking for resources, . . . keeping the budgets balanced, making sure everybody gets paid, making sure the building is cleaned, mak[ing] sure the buses are running . . .” Although her self-disclosed job description included many administrative tasks, Mrs. Nelson also engaged in instructional leadership activities, which will be highlighted below. Mrs. Ruiz on the other hand, was responsible for student discipline and for coordinating the bilingual program. Because of the clear division of labor between Nelson and Ruiz, and Nelson’s noteworthy involvement in instruction at Hillside, we focus our analysis on Nelson’s initiation of instructional leadership practices.³

Data

The data for this article were collected during the 1999-2000 school year and include 38 semistructured interviews with teachers⁴ (17 interviews) and school leaders⁵ (21 interviews). All of the interviews were audiotaped and transcribed. We also collected observational data (in the form of detailed fieldnotes) of 19 meetings, including 15 grade-level team meetings and four faculty meetings.

We concentrated our data collection at the second and fifth grades and on formal school leaders. However, we interviewed other school participants who emerged as informal leaders. The purpose of the interview and observation protocols was to gain an understanding of what teachers and leaders do from their perspective and especially to understand leadership as a practice, how teachers and leaders think about their practice, and whom and what they identify as shaping that practice.

Data Analysis

To analyze the data, we used QSR NUD*IST, a computer program designed for the management, coding, and analysis of qualitative data. We developed a coding scheme based on our conceptual framework that included several key nodes.

For data on administrator practice, including interviews with administrators and meetings in which they participated, nodes include the following:

- A. Type of task observed or discussed (instructional or managerial)
 1. Instructional task: A task that involves the core technology of schooling, especially content, curricular materials, pedagogical methods, and student assessment
 2. Managerial task: A task that involves managing or maintaining the school, such as distributing information, managing the budget, hiring personnel, planning school events, and setting schedules
- B. Presence of a connection between two constituencies (boundary spanner or boundary practice?) that contributes to the task or activity
 1. Boundary spanner: An individual who serves as a connection between two different constituencies
 2. Boundary practice: A routine activity that sustains a connection between two constituencies

For data on teacher practice, including teacher interviews and grade level meetings, nodes include the following:

- C. Source of influence on teacher practice
 1. Administrator
 2. Teacher
 3. Artifacts such as curricular guides, published articles, Internet Web sites, books
 4. Participation in professional development
 5. Preservice teacher training

Using QSR NUD*IST, we identified and coded all of the data in which the principal was cited as having an influence on, or being involved in, teaching practices. These data include teacher interviews in which teachers reflected on their practice and identified the influences on their practice, observations of meetings in which we observed leadership in practice, and leader interviews in which the administrators talked about their own practice. Once we identified these data, we further coded them for type of task, as well as for the presence of a boundary spanner or boundary practice. Finally, we examined the data in which teachers cited the principal when discussing their work to gauge the principal's influence on classroom practices.

The principal at Hillside initiated many instructional leadership activities in addition to the numerous managerial tasks for which she was responsible. We begin our analysis with a description of instructional leadership practices at Hillside, to illustrate what making connections to teaching practice looks like.

Instructional Leadership: Making Connections to Teaching Practice

One way that school administrators can engage in instructional leadership is by observing teachers and conducting formative and summative evaluations. By observing instruction, administrators see firsthand the kind of instruction teachers are providing and can use such observations as an opportunity to talk with teachers about instruction and its improvement. In doing so, they are making a connection to teaching practice and if they choose to, they can use that connection as an opportunity to influence the kind and quality of instruction that teachers provide.

Similar to most school districts, the Hillside administration was required to observe teachers and evaluate them twice a year. For Mrs. Nelson, supervising the instructional program was a big priority, so she made a point to do one or sometimes two formal classroom observations every day. However,

Mrs. Nelson's instructional leadership activities not only included formally observing teachers but other activities as well, such as collecting writing folders, monitoring student assessment results and using them to evaluate and tweak instructional programs, reviewing teachers' lesson plans, and orchestrating a major professional development initiative that had a direct impact on classroom instruction. Each of these activities constitutes a key connection between leadership practice and teaching practice. We describe each of these instructional leadership activities in turn.

Instructional Leadership at Hillside: Writing Folders

For Mrs. Nelson, the ability to write and communicate clearly was a key factor in the success of minority children. She explained,

It's part of my whole drive about perceptions that people have of minority children . . . Being able to speak and being able to write are two very important components of people perceiving you as being an educated person. . . . When I started reading children's writing, it didn't make any sense. There was no beginning, there was no middle, there was no end. The spelling was atrocious. . . . It looked—it didn't look like we cared and that bothered me.

In response, Mrs. Nelson worked to establish a stronger connection between her work and teachers' writing instruction, requiring teachers to regularly submit writing folders to her for review. On a monthly basis from October through April, every teacher submitted a folder that contained one composition written by each student in the class. Mrs. Nelson read each student's work and provided the teachers and students with written feedback. This practice constituted a regular connection between Mrs. Nelson and the teachers and provided an ongoing forum for their mutual engagement in the practice of improving student writing and writing instruction.

Mrs. Nelson used this boundary practice as a lever to influence writing instruction across classrooms. She explained,

You know, I can tell a lot of what's happening in the classroom by just reading folders and providing feedback to teachers. I can see people who maybe need to work a little on certain things. . . . So I thought it was a good way for me to get kind of a snapshot of what's happening and what people are doing in this school. It forced teachers to actually teach writing as a subject and not just as a homework assignment and encouraged them to use the writing as an integrated thing, not as a stand-alone.

For Mrs. Nelson, the writing folders served as a window into teachers' classrooms and signaled to teachers that writing should be a top priority and integrated into all areas of the curriculum.

The practice of reviewing writing folders connected Mrs. Nelson to both students and teachers, two key components of the instructional unit (Cohen & Ball, 1998). She targeted students by monitoring the substance and quality of their writing and giving them individualized feedback. For example, one fifth-grade teacher submitted her students' expository compositions on 'How to Eat an Oreo Cookie.' All of the submissions included multiple drafts of each composition so that Mrs. Nelson could see the progression of each student's work as well as a cover page that included the student's name, the composition's title, and how the teacher scored it along five dimensions—*focus*, *support*, *organization*, *conventions*, and *integration*. On the cover page of one student's paper for example, Mrs. Nelson offered the critique, "Needs work on support and spelling corrections" as well as a compliment: "Nice beginning." On another student's paper she wrote more extensively, "Needs *more* details. Paragraphs should be 3 to 4 sentences. Watch your sentences. Start with a capital letter and end with a period." Remarkably, through the writing folder review, Mrs. Nelson provided individualized feedback to hundreds of students.

In addition, Mrs. Nelson also used the writing folder review to target teaching, by making teachers accountable to her goals for writing instruction. She explained that as part of the writing folder review,

I write notes to every single classroom every single month. And . . . I try to have it be constructive criticism. I try to give specific things that maybe the class might want to work on and hopefully the teacher will say, "Well, if the class needs to work on it, that probably means I need to work on it." And certainly . . . when I do evaluations, . . . if I'm continually writing to a teacher, you know, "Please work with your children on making sure that their paragraphs are longer than one sentence" and then at the end of the year, they're still writing one sentence paragraphs, I think this is a person who doesn't get the message or is not really interested in improving themselves or their children. So it figures into the final evaluation—into the summative evaluation.

In her effort to prioritize and improve writing and writing instruction, Mrs. Nelson not only gave feedback to students about their writing but to their teachers as well. Furthermore, she held teachers accountable to teaching writing by considering the writing folders in their final evaluations.

Teachers paid attention and reported that Mrs. Nelson's writing folder review did indeed shape their writing instruction. For example, one teacher described its impact this way:

I switch my whole day around so they get—they get almost an hour to work on this [Young Authors Writing Project]⁶ because I realize all these different issues and problems that the kids have because I can't write the stories for them. I have received notes from Mrs. Nelson. We have to turn in compositions monthly. . . . But that is what I've had to change in my approach this year is giving them more time to think, more time to work, more time to review the process. You know, review the criteria. You have to have this, this, and this. You have to have detailed sentences . . . more time. That's what I've had to do.

For this teacher, submitting writing folders to Mrs. Nelson and receiving her feedback prompted her to increase the amount of time she devoted to writing instruction. In addition, recognizing Mrs. Nelson's emphasis on the subject, she made a point to regularly review the criteria for good writing with her students. This teacher's experience is representative of the impact the writing folders had on writing instruction across the school. The curriculum coordinator summed up this impact by saying,

Everyone talks about it . . . the staff, the teachers. The teachers all talk about it. They, they're intimidated by it to a certain extent, but they've learned from it, they've grown from it, and when you look at our [Illinois Standards Achievement Test] writing scores compared to other schools [that are] comparable [in the] socioeconomic and ethnic area, it's incredible. I mean our scores are so much higher and that's the reason they're higher.

These accounts illustrate how the practice of reviewing writing folders forged a tight connection between Mrs. Nelson's practice as an administrator and teachers' classroom practice, providing instructional leadership that targeted both teachers and students. Moreover, by simultaneously addressing teachers and students, this practice was more likely to effect change than if it had targeted only one or the other.

Instructional Leadership at Hillside: Connections Through Student Assessments

Mrs. Nelson also established a direct connection to teaching practice through her examination of student assessment data. District policy holds

schools accountable for student achievement, measured largely by state-mandated standardized tests. Nelson believed that one of her roles as principal was to analyze test scores to help teachers plan and improve instructional programs. She said,

I think my major role is . . . also to look at children's progress over time, to look at test results, to analyze—help teachers analyze results. Where are our strengths? Where are our weaknesses? What do we need to work on? You know, when we get standardized test results back, looking at item analysis and so on and saying, "Well, we did real well in this section, we didn't [do] so well in this section. What do we need to do to make sure that we're going to be—the kids are going to be more successful?" . . . So trying to help people focus on areas of deficit and, you know, kind of cheering for the items that we do well on.

Mrs. Nelson routinely used standardized test scores as a tool to connect to and influence what teachers do in their classrooms, particularly with respect to content coverage. For example, in the following field note excerpt from a faculty meeting, she reviewed the school's scores for the open-ended mathematics questions on the Illinois Standards Achievement Test.

As the teachers sat before her, Mrs. Nelson distributed a copy of the scores to each teacher and stood at the front of the room. She explained that these questions are graded in three parts including "math knowledge, strategic knowledge, and explanation" and that the rubric used to score the test was based on a scale from zero to four. She pointed out that a score of zero means the student "didn't even try" to solve the problem. Referring to her own copy of the scores, she read the results from one of the areas in math: "44% got a 4, 9% got a 3 . . . 12% didn't try . . . We shouldn't have any zeros," she said matter-of-factly. "It is important to encourage them to try and get something down." The teachers were largely silent as they followed along in their own copies of the scores. Mrs. Nelson continued to read the results from an area on the fifth grade test: "Task 2—different shapes, same area. 23% got a 4, and 4% got a 3. Fifth grade teachers—you might want to consider doing a review of geometry in the next week."⁷ The fifth grade team did not appear fazed by her remarks.

After reviewing the results from several areas of the test on which students at Hillside and from across the state performed poorly, one teacher suggested there is something wrong with the test itself because the results do not follow a bell curve. Mrs. Nelson pointed out to her that this is a criterion-referenced test and added, "There might be something wrong with the way we are teaching!"

The teacher replied with emotion, “Something is wrong if everyone in the state is teaching wrong!” Mrs. Nelson explained, “This is a test of higher order skills—a buzz word for the nineties and two thousands. We want them to explain how they got an answer . . . why this is true. We have to learn how to teach differently. That is why we can’t have a lot of ditto sheets. We need to ask questions where they have to write paragraphs and explain their responses.” . . . After fielding a question or two she added, “It’s not going to go away folks.” (field notes, faculty meeting)

In this example, the test scores allowed Mrs. Nelson to examine student performance, at least as it is measured by this particular test. She used the scores as an opportunity to talk with teachers about students’ strengths and weaknesses and how teachers might address those weaknesses in the classroom. Specifically, by pointing out the fifth grade’s weakness in geometry and suggesting that the fifth-grade teachers cover geometry before the next test, she addressed content coverage. By explaining the pedagogical movement in mathematics away from rote learning through ditto sheets toward higher order operations that require students to explain their thinking, she addressed general pedagogical principles in mathematics. As a centerpiece for discussion, the scores provided an important link that enabled Mrs. Nelson to connect to those particular dimensions of instruction.

Mrs. Nelson viewed student assessments of all kinds, and not just standardized test scores, as a way to keep tabs on teaching and learning and furthermore, as a lever to exert influence on teachers’ instructional practice. She said,

I try to use any assessment as—as really a way to plan the instructional program. I don’t look at it necessarily as a final result. If children are doing poorly, I think we need to look at ourselves and not at the kids. So, you know, if everybody’s getting a D or an F, it’s usually not the kids’ fault. It’s usually the way that we’re presenting material or assessing them or whatever it is. So we really look at—at a whole variety of assessments and see how kids are doing and how we can improve to meet the needs of the kids.

For example, Nelson had the curriculum coordinator routinely compile results of periodic assessments from the reading curriculum for her to review, allowing her to see how students were progressing. If she saw problems at a certain grade level for example, she talked to the grade-level team about “what we’re going to do to address this need.” Similar to the standardized test scores, Mrs. Nelson used the reading reports to inform her of students’ progress

in reading and as a jumping off point for discussions with teachers about how they might change instruction to better address their students' needs.

Mrs. Nelson viewed student performance on assessments as a signal of how individual teachers, grade levels, and the school overall were doing with respect to student performance. If assessments signaled a problem, she, together with the teachers, examined what and how they were teaching to determine what might be the cause. They considered how teachers might change their approach to certain material to more effectively teach it or how they might change assessments to better reflect what students were learning. Rather than blaming students for poor performance, Nelson readily looked to instruction as the cause, using assessments as a tool to examine the various dimensions of instruction that might be responsible. Her use of test scores to connect with teachers' classroom practice constitutes another example of instructional leadership practice.

Instructional Leadership at Hillside: Connections Through Lesson Plans

Finally, Mrs. Nelson engaged in the practice of regularly reviewing teachers' lesson plans, using it as another way to connect to classroom instruction. The district requires teachers to submit lesson plans to school administrators regularly, but Mrs. Nelson transformed this potentially mundane administrative routine into a viable connection between herself and the teachers. One of the school's counselors summed it up this way:

These lesson plans . . . It's a piece of artwork. It's a craft that these teachers have to do weekly. It's scrutinized and it's checked. If she comes in the classroom and you are not working on the objective that you said you were going to be working on that day, she wants to know why. I think that's why the school has made its incredible success, because she's there making sure it's going to happen. If it's not going to happen, explain to me why it's not happening. You're not going to sit at your desk crocheting.

Mrs. Nelson took the lesson plans seriously and sent notes to teachers for plans that she believed warranted critical feedback. One veteran teacher commented,

I know that she does; she sends many notes to many other teachers on their lesson plans. . . . I know in the beginning, as I say the first couple years

I came, she was, she, not on me but she did, you know, “Gee, what does this mean?” or “Why are you teaching this?” or “What does this key into?” You know, so she was looking at them, you know . . . So I’ve never seen lesson plans that were so involved.

The practice of collecting and reviewing teachers’ lesson plans was not just another district paperwork requirement but a way for Mrs. Nelson to sustain a routine and direct connection to teaching practice. Similar to the writing folders and student assessments, the lesson plans helped Mrs. Nelson to regularly monitor classroom practice by providing her with a written record of what teachers were doing. By holding teachers accountable for following their lesson plans and pressing them to explain why they were teaching those lessons, she was able not only to monitor content coverage with respect to the state goals and district frameworks (“What does this key into?”) but also to gauge teachers’ understandings of the underlying logic of the curriculum (“Why are you teaching this?”).

Tools at Work: The Role of Boundary Practices in Instructional Leadership

The practices of observing and evaluating teachers, of regularly reviewing writing folders, of using student assessment data as a centerpiece for discussion with teachers about what is working in the classroom and what is not, and of regularly reviewing lesson plans are all examples of boundary practices. Boundary practices are routines that sustain connections between different communities of practice or constituencies and provide an ongoing forum for mutual engagement in some activity (Wenger, 1998). Below, we explore the role of boundary practices in school leadership.

First, boundary practices sustain connections across the boundary between different communities of practice. A community of practice is a group of people who are mutually engaged in a joint enterprise and who have at their disposal a common set of tools (Wenger, 1998). Administrators and teachers have different professional responsibilities, thereby participating in different communities of practice, at least when it comes to their primary work.⁸ School administrators who have one set of responsibilities (e.g., budgeting, student discipline, staffing, etc.) typically constitute one community of practice, whereas teachers who have a different set of responsibilities (e.g., planning, teaching, etc.) constitute another. As a result, for administrators to engage in instructional leadership and connect what they do to what teachers do, they must find ways to span the boundary between them.

Boundary practices, as routines that span that boundary, enable connections to be forged between the administration community and the teaching community by involving participants from both communities in one overarching practice.

Second, boundary practices are ongoing, occurring on a regular basis. For example, the teachers submitted writing folders once a month. Over time, boundary practices become routine, a significant feature of effective instructional leadership, which is “embedded in school culture, . . . expected and routinely delivered” (Blase & Blase, 1999, p. 368). Because the teachers participated in these practices on a regular basis throughout the school year, they were familiar with Nelson’s expectations for each practice. The teachers’ familiarity with her expectations resulted in a certain degree of efficiency in that they did not have to repeatedly make sense of these practices. Furthermore, this efficiency enabled instructional leadership for a large number of teachers and students. In a smaller school, perhaps instructional leadership practice would have taken on a different form. However, in a school of 1,300, Mrs. Nelson initiated these boundary practices as a way to manage instructional leadership for a large number of constituents.

Third, boundary practices involve participants’ mutual engagement in some activity. Mrs. Nelson demonstrated leadership by orchestrating the boundary practices highlighted earlier, playing a pivotal role in defining them. However, these practices are not a function of her activities alone. Rather, they are distributed (Spillane et al., 2001) or stretched across Mrs. Nelson, teachers, and—in the case of the writing folder review—students. In other words, leadership practice is realized where the activities of leaders and followers intersect, in the creation of an overarching practice or set of practices. For example, the writing folder review was defined in an intricate web of activities by actors in different communities of practice. Mrs. Nelson initiated the practice by creating the necessary tools, establishing guidelines for writing folder submissions, setting submission deadlines, participating by reading students’ submissions, and providing feedback to them and their teachers. Teachers participated by setting aside regular time in their classrooms for their students to work on writing, working with students as they engaged in the writing process while taking into account Nelson’s feedback, and compiling students’ submissions, attaching to each the cover sheet that Nelson required. Finally, students participated by completing their writing assignments and applying both Nelson’s and their teachers’ feedback in their work. Hence, the activities of Nelson, the teachers, and students were interrelated, coming together to create the writing folder review, a practice that transcended the boundary between Nelson and teachers’ classrooms.

Equating leadership practice solely with the activities of leaders misses the contributions of other actors whose activities also help to define it. The mutual engagement of leaders and followers in leadership practice, however, is not guaranteed; the effectiveness of boundary practices is at least partly contingent on leaders' legitimacy. Hillside teachers participated in the practices that Nelson orchestrated because they viewed her as a legitimate leader.

Finally, leadership practice is distributed across leaders, followers, and tools. Boundary practices themselves, as routine activities, are a type of tool. However, the boundary practices highlighted in this article involved the use of concrete tools as well (e.g., students' written compositions, writing folder cover sheets, standardized test scores, and lesson plans). Similar to the actors who participated in these practices, the respective tools, and how they were constructed, also helped to define these practices. For example, the district requirement that teachers regularly submit lesson plans to school administrators is not uncommon. However, unlike at other schools where administrators might view teachers' lesson plans as just more bureaucratic paperwork, Mrs. Nelson took them seriously, defining them as a representation of what teachers were doing and why and using them to hold teachers accountable to certain standards for instruction. Her definition of lesson plans and how they were to be used transformed this existing artifact into a leadership tool that she used to connect her practice with teaching practice. Test scores provide a similar example. Although virtually all public schools are required to administer standardized tests, how schools use the results varies. Mrs. Nelson defined standardized tests not as a hoop to jump through but as a tool to plan for and tweak instructional programs and curricula. Similar to the lesson plans, Mrs. Nelson transformed required student assessments into a leadership tool, building a boundary practice around them. In contrast, there was no district or state requirement that Hillside teachers submit writing folders to the principal for review. Nelson designed this practice to meet her goals for writing and writing instruction. Similar to the lesson plans and test scores, the writing folder, as a tool that Nelson created and defined, shaped leadership practice.

Establishing boundary practices is one way that Mrs. Nelson initiated instructional leadership. Spanning the boundary between external resources and Hillside teachers is another.

Hillside: Principal as Boundary Spanner for Instructional Leadership

Boundary spanners are individuals who serve as a connection between different constituencies (Wenger, 1998). Mrs. Nelson herself served as

a boundary spanner between professional resources outside the school and the Hillside staff, often linking teachers to professional development opportunities. One teacher explained,

Mrs. Nelson encourages us; I mean, most principals do, but she really, to the point sometimes of too much, she pushes us. And so we, um, you know, she always finds a workshop or, you know, some organized meeting for us to attend that will ultimately provide for growth for us. You know, she provides tips and whatever she hears about, she shares with us how to, um, something new and innovative in terms of reaching our students. That kind of thing.

As a boundary spanner, Mrs. Nelson brought knowledge of professional development opportunities from communities outside the school to teachers who would not otherwise have had knowledge of those resources. Her position allowed her to indirectly connect to teaching practice by exposing the teachers to a variety of opportunities for growth.

One example of Mrs. Nelson linking teachers with outside resources is particularly noteworthy. Through her connections to an outside consultant, Mrs. Nelson helped to establish the Teaching and Learning Network, a professional development initiative comprised of three neighborhood schools with the consultant as an external partner. She explained how she used her connection to bring about this initiative:

Well, I knew James who was the director of Education Corporation. I had known him from some other groups that I was involved with—with the Principals' Association—and James had an idea about a network . . . so I talked to the staff and the [Local Governing Agency], and everyone seemed to think it fit in well with goals that we already had. So we—we received a planning grant then.

The purpose of the Teaching and Learning Network, which had been a primary focus for the past 2 years, was to “work with staff development in order to impact student achievement with critical thinking, higher order thinking skills.”

One primary component of the network was a series of day-long professional development workshops in which teachers learned how to nurture and support higher order thinking in their students. Of the seven second- and fifth-grade teachers who participated, six of them cited what they learned in those workshops as influencing their teaching. For example, one teacher reflected,

Something that I really got out of it is to do more questioning with my students and really get them to deduce the answers and to pull from them the

information instead of always giving it to them. And it really makes my job easier. You know, I don't have to stand up and lecture to 7-year-olds who don't have the patience to sit and listen. . . . They would rather give me the answers than sit and listen to me say it. So . . . that's one thing I've pulled from the [Network] is to always be questioning. "Why?" is the big thing. They always say, you know, whenever you can, ask them why. And I try to do that as often as possible.

Many teachers described changing their practice as a result of participating in the Teaching and Learning Network. Mrs. Nelson played a key role in initiating the creation of the network, although the leadership practice surrounding the network was distributed across many people and tools, including herself, the external partner, expert teacher consultants, participating teachers, and the many materials and ideas involved in the workshops. As a boundary spanner who connected the external partner and the teachers, she initiated what amounted to a key opportunity for the teachers' professional growth. Without that connection, this occasion for instructional leadership would not have been realized.

The case of instructional leadership at Hillside illustrates how the principal made direct connections to teaching practice through the establishment of certain routine boundary practices as well as by spanning the boundary between teaching practice and external professional resources. These boundary practices and boundary spanning activities are key mechanisms that enable instructional leadership to take root. In addition, we have illustrated how instructional leadership via boundary practices and spanners is distributed across multiple actors and tools. Complicating matters further however, is the notion that not only is leadership distributed across actors and tools but across the situation as well (Spillane, Sherer, & Coldren, 2005). Instructional leadership at Hillside did not occur in a vacuum, devoid of its surrounding context. On the contrary, leadership practice is affected by the context in which it is situated.

Leadership in Context

Leadership practice is situated in a multifaceted context, including particular students and families, teachers, and administrators; district, state, and federal policy; and local and national professional organizations. These multiple facets all come together and interact in complex ways to help define leadership practice. Although an exhaustive treatment of context and how all of its facets come together to shape leadership practice is beyond the scope

of this article, we found several to be particularly salient in helping to define leadership practice at Hillside, including Hillside's urban student population, Mrs. Nelson's values and beliefs, and the composition of the teaching staff.

Hillside serves an economically and socially disadvantaged student population. Specifically, 95% of students are low income, and 99% are minority (94% Latino and 5% African American). One might assume that the high concentration of low-income and minority students at Hillside would constrain instructional leadership there. Research shows that teachers often blame low-income and minority students for academic failure, maintaining low expectations as well as low collective responsibility for student learning (Diamond, Randolph, & Spillane, 2004; Lee & Smith, 2001). Collective responsibility means that teachers internalize responsibility for student learning, are willing to adapt teaching practices to meet students' needs, and feel a sense of efficacy in their teaching (Lee & Smith, 2001). Hillside leaders and teachers could have easily blamed students for any deficits in academic achievement, turning a blind eye to the role of classroom instruction in academic failure. Instead, Mrs. Nelson insisted that if students perform poorly it is because of the way teachers are teaching. In other words, she emphasized the importance of collective responsibility among the teaching staff, helping teachers take the necessary steps to ensure that classroom instruction met students' needs. Furthermore, Nelson's emphasis on collective responsibility for student learning was heightened by her beliefs about the needs of Hillside's minority student population.

For example, Mrs. Nelson recognized the potential challenges that minority students face in a majority dominated culture.

In many cases, minority children, ours are predominantly Hispanic, but I think also African Americans and other minority groups, they're put in a box, they're labeled . . . with a lot of negative things. People don't think they can be successful simply because of the color of their skin or the fact that their first language is not English or whatever it is.

In light of these challenges, Nelson's primary goal for her students was for them to have options, in terms of both school and career. Specifically, she spoke of her desire for all of Hillside's students to have the option of attending a good high school,⁹ which she believed was contingent on their ability to communicate and express themselves effectively.

I want them to feel good about themselves and be able to present themselves in a positive manner to people, be able to speak to people. I think being able

to address people and feeling confident about what you're doing is a big part of that first impression you make on people. If you can express your ideas in a coherent manner, it's usually a big plus for our kids.

The challenges faced by minority students coupled with Nelson's belief that self-expression is key to their success led her to create the writing folder review. She believed that by teaching students how to write well, they would develop the critical ability to express themselves. Furthermore, Nelson viewed writing as an integration of several key skill areas: "I think it's really important because it integrates so many things. It integrates thinking. It integrates being able to organize. It integrates spelling and language and a lot of different things."

Focusing her attention on writing across the school knocked a powerful punch, simultaneously addressing multiple skills that Nelson believed were important, especially for minority students. The challenges faced by the school's minority student population, together with Nelson's beliefs about and goals for such students, led Nelson to craft the writing folder review. The student context in which leadership was situated shaped this leadership practice.

Similarly, Nelson believed that fostering critical thinking skills is of paramount importance for today's students, and particularly minority students, whom she characterized as more independent than ever before.

Those preoperative learning, higher-order thinking skills, critical-thinking skills are essential, especially for minority kids to have—to be able to explore and to be able to think things through for themselves and make some decisions . . . you know, always looking at different ways of doing things.

Nelson also noted that Hillside's many veteran teachers learned to teach decades before and could benefit from learning new strategies to teach the students of the 2000s. Believing that professional development is one of the critical pieces for school improvement and recognizing that students have different needs today than they did when Hillside's veteran staff learned to teach, Nelson helped to create the Teaching and Learning Network. The network was designed to give teachers instructional strategies that help to foster critical thinking in students, thereby addressing both the teachers' need to update their knowledge about instruction and the students' need to learn to think critically. Thus, the student and staff composition at Hillside shaped this example of instructional leadership. Furthermore, by creating the network, Nelson placed responsibility for student learning on herself and the teachers.

The Hillside teachers shared in Nelson's sense of collective responsibility for student learning, illustrating that teaching in urban schools is not always associated with low collective responsibility. Although teachers recognized the challenges inherent in teaching bilingual students, they worked to meet their students' needs, changing their practice and trying new strategies if necessary. For example, one fifth-grade teacher who was not satisfied with her students' progress in writing said, "Then I keep asking myself, 'Well, what is it that I'm doing wrong?'" Rather than pointing a finger at her students, this teacher recognized her role in their failure to make adequate progress, leading her to change her approach to writing instruction. Teachers also emphasized the importance of using a variety of strategies in the classroom, recognizing that children learn in different ways. One second-grade teacher, when discussing her reading instruction, explained,

You have to do phonics, you have to do sight words, you have to do literature . . . [because] every child learns a different way. So you kind of have to approach all the angles to get them to respond. . . . It's a lot of work but the end product, you know, you can really be proud of.

By using a variety of strategies to teach reading, this teacher took responsibility for teaching all of her students, striving to meet all of their various learning needs.

Not only did Hillside teachers take responsibility for student learning, but they also maintained high expectations for their students. For example, one teacher convinced her students that they were capable of doing challenging work by repeatedly telling them how smart they are. She explained, "Periodically, I'll tell them, 'You are the smartest bunch of fifth graders in this school. Now don't tell anyone. Be humble.' And they'll walk around with their heads up."

Although one might assume, because of past research, that the Hillside staff would have low expectations for their urban students and maintain low collective responsibility for their learning, we found the opposite to be true. Instead, Hillside's students and the unique challenges they faced served as a call to action for Nelson to orchestrate and the teachers to participate in certain instructional leadership activities. In sum, the composition of students at Hillside, Nelson's values and beliefs, an older teaching staff, and teachers' sense of collective responsibility all influenced instructional leadership practice.

Instructional Leadership Practice: From Connections to Influence

So far we have illustrated how Mrs. Nelson initiated and shaped instructional leadership practices at Hillside by making connections to teacher practice via boundary practices and her own boundary spanning activities. We have also examined how leadership practice is distributed or stretched across Mrs. Nelson, the teachers, students, and certain tools and is shaped by the particular context in which leadership practice is situated. Through the connections that she sustained to classroom practice, Mrs. Nelson had numerous opportunities to express her goals and vision for instruction, thereby striving to exert influence on that instruction. Part of what effective school leaders do is to formulate a vision and influence others' actions to achieve it (Cuban, 1988). One key question, therefore, is how much influence on teaching do leaders have in the context of connections they have made to teaching practice?

We have already shown how certain instructional leadership practices at Hillside influenced what teachers do and how they think about their work. For example, teachers spoke of how the writing folders routine and the Teaching and Learning Network changed their practice. Teachers planned lessons to cover topics that Mrs. Nelson pointed out in discussions of test scores as points of weakness. In addition, of the 15 classroom teachers and resource teachers we interviewed, 9 of them included Mrs. Nelson's expectations and educational philosophy in discussions of their work.

For example, these teachers seemed well versed in Mrs. Nelson's general philosophy of openness to almost any idea as long as they could show that their students were learning. One teacher said,

She says, "As long as you can prove to me that what you're doing is working, use it." You know? And she said that a number of times. Because somebody might say, "This book is no good. We can't use this book." "Okay. What is your suggestion? What would you like to use?" "This is what I have here and I feel that this will work." "Okay, use that, but show me . . . you're going to meet your objectives through teaching this and ways like that." . . . And if it's meeting the standards and objectives and the students are learning, she has said again, a number, number, number of times, we can use it. Nothing is etched in stone.

This teacher, similar to many teachers, understood that Nelson's priority was for the students to learn rather than for teachers to teach in highly specified ways. Thus, she encouraged flexibility in materials and strategies as

long as teachers could demonstrate that their students were learning. In addition, the language teachers used to talk about Nelson's philosophy is noteworthy. Their ability to practically quote their principal regarding such matters illustrates that they were particularly well versed in her philosophy of teaching and learning.

Teachers also readily cited specific aspects of instruction that Mrs. Nelson strongly emphasized. One example is her emphasis on differentiated small-group instruction. One teacher said,

Mrs. Nelson wants us to do on-level reading. So I really try to work with even the bottom group on-level . . . and she does want to see groups. She's a big fan of reading groups and they do work. I mean, they really do. It makes a difference. The bottom group needs that, especially the bottom group; they need that attention, close attention all, everyday.

This teacher not only knew of Nelson's expectation that they do small group instruction but she followed through with it and implemented reading groups in her classroom.

Teachers also referred to Mrs. Nelson's emphasis on teaching vocabulary. For example, one teacher explained,

We're working really heavy on vocabulary . . . expanding our students' vocabulary. That's a big one . . . It's just kind of a push, a big push since really the beginning of this year to really work on that . . . because it's kind of our lowest area on our test scores. . . . She [Nelson] hasn't told us how to do it, she just more or less said we need to really work on vocabulary.

This teacher was aware of Nelson's expectation that they emphasize vocabulary in their teaching. Consequently, she followed through in her classroom by having a word wall, a display of vocabulary words that students have learned, as well as by engaging in other vocabulary-enriching activities. These excerpts exemplify how Hillside teachers were well versed in certain expectations that Nelson had concerning their classroom practice. Through her connections to that practice, she exerted influence on teachers' thinking as well as on their practice.

In sum, the evidence suggests that the principal at Hillside did exert a considerable amount of influence on teaching practice. Her connections to classroom instruction provided a regular forum through which she could monitor and influence teaching practice. Furthermore, because Nelson had been at Hillside for 14 years, she had plenty of opportunities over time to communicate her expectations and philosophies to the staff.

Policy Implications and Conclusion

The Hillside case illustrates how instructional leadership practice—which is stretched over the leader, teachers, and tools—can connect with and influence classroom practice. Although the leadership practices highlighted in this article are distributed, Mrs. Nelson played a key role in initiating and shaping them. She created the practice of teachers regularly submitting writing folders for her to review, giving her a way to monitor and be directly involved in students' writing and teachers' writing instruction. She also regularly used student assessment data to analyze what does and does not work in terms of curriculum and instruction, using such data as a centerpiece for discussion with teachers about their practice. In addition, she recognized the utility of using teachers' lesson plans as a way to keep abreast of what teachers are doing as well as of their understanding of the underlying logic of what they do, intervening when she saw a need to. All of these instructional leadership practices are boundary practices, routines that Mrs. Nelson used to sustain a connection between her activities and teaching practice.

Administrators whose roles are defined primarily by their managerial responsibilities have few specified ways to be involved in classroom practices. Policy typically defines their role in instruction in terms of annual evaluations, but beyond that, their role in teaching, at least on paper, is unclear. For administrators to become more involved in instruction, they need to see themselves as instructional leaders in addition to their usual managerial responsibilities and find ways to bridge the gap between what they do and what teachers do. Boundary practices are a key mechanism that allows administrators to do just that. But these practices are not immediately obvious and school leaders have to work to initiate and develop them. Furthermore, their routine nature leads to a degree of efficiency that enables instructional leadership to take shape across large schools. Without the use of boundary practices, it is unclear how Nelson would have had the time and resources to engage 50 teachers in instructional leadership.

In addition, the Hillside case illustrates how school leaders can shape classroom practice by connecting teachers with outside resources. Through Mrs. Nelson's boundary spanning activities, an external partner teamed up with Hillside and two nearby schools to establish the Teaching and Learning Network, an ongoing professional development initiative that proved to be highly influential for Hillside's teachers. Without Nelson's involvement in initiating and shaping this network, the teachers would have missed this opportunity to learn and grow.

Our examination of instructional leadership practice at Hillside also illustrates how leadership practice is situated in the context of Hillside's particular students and teachers. The high concentration of low-income and minority students at Hillside, combined with Nelson's beliefs about such students' needs, led her to develop the writing folder review and the Teaching and Learning Network. The large number of veteran teachers on the staff, combined with Nelson's belief that teachers need to continue to develop their knowledge and skills throughout their careers to keep up with a changing student population, also contributed to the development of the Teaching and Learning Network. The student and teacher contexts at Hillside played a key role in shaping the instructional leadership activities in which Nelson and the teachers engaged. In addition, these leadership activities were shaped in important ways by Nelson's values and beliefs and a sense of collective responsibility for student learning that permeated the school.

Our findings have several important implications for policies that seek to address school leadership, and especially policies that involve the design and implementation of leadership tools. First, boundary practices that are proven effective on a small scale (e.g., the writing folder review) could be scaled up and implemented in many schools. However, given the situated nature of instructional leadership, these tools should be designed with enough flexibility to be effective in varied contexts. In other words, school leaders should be able to tailor leadership tools to fit their school's particular needs.

Second, existing policies might constrain the development of leadership tools such as boundary practices, creating additional challenges for administrators trying to make connections to teaching. For example, high-stakes accountability measures that result from policies such as No Child Left Behind might lead school leaders to focus solely on raising test scores, thereby inhibiting the use of other, perhaps even more effective, tools. Hence, in designing leadership tools, we need to consider how they will interact with and complement policies already in place. Indeed, policies designed to establish stronger ties between school administration and instruction need to pay careful attention to the tools they make available to school administrators, addressing how these tools enable and constrain connections to classroom practice.

Third, the effectiveness of instructional leadership at Hillside was likely due, in part, to Nelson's length of tenure at Hillside. As a result of her many years of administrative experience, she was adept in her numerous managerial responsibilities and was therefore able to devote time and other resources to instructional leadership activities. Novice administrators, however,

because they are still learning the ropes, may have to devote more time to those fundamental managerial activities that keep a school running. In other words, school leadership can be characterized as lying on a developmental trajectory, beginning with novice leadership and ending with veteran leadership, each stage with a potentially different set of needs. Because school leadership looks different at various stages of development, policies designed to enable instructional leadership in schools should be sensitive to the developmental stage of leaders.

Finally, the most effective use of policy to support instructional leadership may be to offer more general support to school administrators, ensuring they have the resources and capacity to accomplish their managerial work so that they can also devote time and energy to developing instructional leadership activities such as boundary practices that prove most effective in the local context. Furthermore, for instructional leadership to take root in schools, leaders need to be knowledgeable about instruction and have a firm understanding of the latest developments in scientific research on instruction. Thus, administrators need to engage in professional development themselves, not just to enhance their administrative skills but also to increase their knowledge about instruction. Policy could be used to ensure that administrators receive the ongoing professional development in instruction they need to be knowledgeable as well as effective instructional leaders.

The case of instructional leadership at Hillside is important because it illustrates first how administrators can connect their own activities to teaching and second that by doing so they can influence teaching in tangible ways. Mrs. Nelson's connections to teaching practice paid dividends in terms of her influence on how teachers think about teaching and what they do in the classroom. This study begs the question: How might school districts better support administrators so that they have the resources and capacity to provide instructional leadership? We believe the answer lies in part in using cases such as Hillside to show administrators how instructional leadership can be accomplished as well as in the design and use of tools such as boundary practices that can be used locally to make instructional leadership practice more attainable and efficient.

Notes

1. All names have been changed.
2. By using the term *follower*, we do not mean to imply that followers are passive recipients of leadership or that they lack agency. Rather, we use the term to denote a leader's target audience.

3. Because Nelson is the primary and typically the sole administrative initiator of and participant in the instructional leadership activities that teachers found to be salient for their classroom practice, we focus our analysis on her involvement in instructional leadership practice.

4. Many of the teacher interviews immediately followed and were based on observations of that teacher's classroom teaching.

5. School leaders include both formal and informal leaders. Formal leaders are individuals who occupy solely administrative or leadership positions or who perform administrative or leadership duties in addition to classroom teaching such as administrators, curriculum coordinators, subject-matter resource persons, technology coordinators, or counselors. Informal leaders are individuals identified by staff members as providing leadership but who were not formally designated as such.

6. For the Young Authors Project, students write and publish their own books.

7. The annual standardized achievement test was to be administered in a few weeks.

8. We do not mean to suggest that principals and teachers do not participate in any overlapping communities (e.g., the overall school community of administrators, teachers, students, and their families). However, when it comes to their primary work-related activities, they tend to participate in different, smaller communities (e.g., a grade-level team or an administrative team) to accomplish their daily responsibilities.

9. Students in the district are not limited to attending their neighborhood high school. Rather, they can apply to attend high schools, including magnet schools, located across the city.

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