

HOW DO PRINCIPAL SUPERVISORS INTERACT WITH LEADERSHIP TEAMS IN HIGH NEEDS SCHOOLS?

Instructional leadership teams (ILTs) advance school improvement by building the capacity of school-based leaders to lead improvement work. The role of central office administrators, and particularly of principal supervisors, supporting the learning and development of ILTs, however, is relatively unknown. This mixed methods study explored the degree and focus of principal supervisors' interactions with ILTs in high needs schools and considered whether these interactions are related to the ILT members' perceptions of the leadership and organizational conditions for school improvement. Findings revealed that a greater degree of interaction between the principal supervisor and the ILT was related to more positive perceptions of the school's leadership and organizational conditions for improvement. Further, principal supervisors' interactions with ILTs largely fell within the constructs of leadership for learning, professional development, and support for teams. These findings have implications for principal supervisor preparation and expectations for how supervisors enact and fulfill their roles.

The literature on the effects of leadership, most often principal leadership, on student learning is extensive. Principal leadership practices and behaviors largely contribute to improved student learning outcomes indirectly, through their influence on teachers' instructional practice and their fostering of collaboration and communication around instruction (Hallinger & Heck, 1998; Robinson et al., 2008; Supovitz et al., 2010; Waters et al., 2003). In fact, the recognition that leadership is second only to classroom instruction as an influence on student learning is well-known (Louis et al., 2010). Despite the central importance of the school principal to school improvement, it is also clear that principals cannot effectively lead instructional improvement by themselves, a reality that is particularly apparent in high needs schools. Schools where principals share or distribute leadership responsibilities perform better on a variety of measures of student achievement, compared to schools where principals do not distribute school leadership responsibilities (Heck & Hallinger, 2009). When principals and teachers work interactively in a shared instructional leadership capacity, schools learn and perform at high levels (Marks & Printy, 2003).

One way that principals engage in the work of distributing leadership is by developing "instructional leadership teams" (ILTs). One benefit of ILTs - which are often comprised of assistant principals, department chairs, and other teacher leaders - is that they allow principals to focus

on their own areas of greatest strength while sharing school leadership responsibilities with the ILT (Klar, 2013; Marzano et al., 2005; Stosich, in press; Weiner, 2014). Additionally, ILTs facilitate the development of leadership capacities of the team members themselves (Klar, 2013; Marzano et al., 2005). An important part of principals' roles as instructional leaders, therefore, is to develop the individuals they supervise and support to increase their capacities to lead instructional improvement efforts collectively.

Recognizing that the role of the principal has shifted from managerial responsibilities to leadership of instructional improvement in schools, school districts are placing a renewed focus on the role of the district central office in developing principals to be instructional leaders (Thessin, 2019; Bottoms & Fry, 2009). As the first contact between principals and district offices; the principal supervisor is a natural provider of this support for principals' learning (Goldring et al., 2018). To meet this need, numerous central offices have redesigned the principal supervisor's role to provide job-embedded coaching and instructional leadership support to principals (Goldring et al., 2018; Honig 2008, 2012; Honig & Rainey, 2014; Jerald, 2012; Turnbull et al., 2015). As school districts have reoriented principal supervisors' roles to focus on developing principals' instructional leadership, thereby moving away from a focus on compliance and supervision, they have revised principal supervisors' job descriptions and reduced their span of control (Goldring et al., 2018; Thessin, 2019). Still, despite district efforts, frequency of time spent in schools and the specific orientation of principal supervisors' work with principals and their teams varies tremendously (Goldring et al., 2018).

In our own prior study, we similarly found that there was great variation among supervisors in the degree to which they engage with individual principals and in the focus of their work, even among principal supervisors who supported the district schools with the highest need for improvement (Thessin, 2019). In light of the role that leaders play in improving schools, and the challenges faced by leaders in improving struggling schools, there is a particularly pressing need to understand how principal supervisors facilitate improvement with principals in high needs schools that are facing accountability demands (Chapman & Harris, 2004; Cosner & Jones, 2016). As part of these improvement efforts, in its standards for principal supervisors, the Council of Chief State School Officers (2015) notes one of the central responsibilities of principal supervisors is to "help principals create distributed leadership systems and structures that support teaching and learning" (p. 19). Given the importance of principals' work with ILTs in leading improvement, a role of greatest consequence in high needs schools, additional attention to understanding how principal supervisors interact with ILTs to establish the conditions for instructional improvement is needed.

The purpose of this mixed methods study was to explore the de-

gree and focus of principal supervisors' interactions with instructional leadership teams (ILTs) in high needs schools in one large Mid-Atlantic school district that was an early adopter of this new model of principal supervision. In addition, this study examined whether these interactions were related to the ILT members' perceptions of the leadership and organizational conditions that are conducive to school improvement. Our analysis drew on rich qualitative and quantitative data, including two sets of interviews of principals and principal supervisors, along with observations, documents, and a survey of leadership team members in focal schools. Mixed methods are particularly well suited to understanding complex problems or phenomena (Creswell, 2013). Our mixed methods approach enabled us to triangulate our emergent findings and explore both the degree and focus of principal supervisors' interactions with ILTs, including the relationship between those interactions and schools' conditions for instructional improvement.

The research questions that guided our study are as follows:

- 1) To what degree do principal supervisors interact with ILTs?
- 2) What is the focus of principal supervisors' interactions with ILTs?
- 3) How, if at all, are the degree and focus of principal supervisors' interactions with ILTs related to leadership team members' perceptions of their school's leadership and organizational conditions for improvement?

Our analysis aimed to understand the degree and focus of principal supervisors' interactions with leadership teams, and to establish whether there are relationships between this engagement and the perceived leadership and conditions for improvement. Our work, therefore, takes the important first step of describing principal supervisors' interactions with leadership teams, thus laying the foundation for future work investigating the direction of these relationships.

Background

Instructional Leadership Teams' Roles in Improvement

In the last several decades, the predominant view of school leadership has shifted away from the managerial and transactional responsibilities of school leadership to instead emphasize the distributed and collaborative nature of the work of successful school leaders (Gronn, 2000; Hallinger & Heck, 2010; Harris, 2012; Heck & Hallinger, 2009; Spillane, 2006; Spillane et al., 2001). Effective school leadership does not reside in any single, "heroic" individual who attempts the challenges of leadership alone, but instead is shared, or "distributed," across individuals and settings within schools (Leithwood & Jantzi, 2012; Marks & Printy, 2003;

Spillane, 2006; Spillane et al., 2001). Existing evidence shows that wider involvement in instructional leadership is associated with increased quality of instruction and gains in student learning (Leithwood & Jantzi, 2012; Marks & Printy, 2003; Printy et al., 2009). Despite some notable challenges to shifting leadership practices from an autocratic to a shared leadership approach (Katzenmeyer & Moller, 2009; Stosich, in press; Weiner, 2014), building the capacity of teachers and other staff members, particularly in the setting of instructional leadership teams, is an important means of sustaining school improvement (Edwards & Gammel, 2016; Harris, 2008; Johnson & Chrispeels, 2010; Wenner & Campbell, 2017; York-Barr & Duke, 2004).

Instructional leadership teams are generally designed with three central goals: 1) the coordination of teacher leadership; 2) development of teacher leaders; and 3) facilitation of instructional improvement throughout the school (Klar, 2013; Portin et al., 2013; Yager & Yager, 2011). Instructional leadership teams are a primary means by which school leaders work together with other school staff members to facilitate school improvement (Weiner, 2014). Ingersoll et al. (2017) found that higher levels of student achievement are associated with teachers' active involvement in school improvement planning. Leithwood and Jantzi (2012) additionally found that collective leadership is linked to student achievement indirectly through its effect on teacher motivation and teachers' workplace settings, factors influenced by school leadership. Overall, effective school leadership teams advance school improvement by building the capacity of other school-based leaders to lead school improvement work (Edwards & Gammel, 2016; York-Barr & Duke, 2004; Wenner & Campbell, 2017).

One way that instructional leadership teams can lead to improved student outcomes is by alleviating the work demands placed on school leaders, allowing for principals to focus their energies on a subset of these tasks while at the same time building the generalized leadership capacity of the school (Marzano et al., 2005). Leadership team members, however, can also work to improve instruction more directly in a number of ways, including: a) providing direct feedback on classroom practices and student learning; b) planning professional development; c) developing and modeling effective lesson design and instructional practice; and d) communicating instructional/school improvement goals to staff (Marzano et al., 2005; Portin et al., 2013). Ideally, teacher leaders serving on leadership teams can "link the classroom with district- and school-determined learning improvement efforts" (Portin et al., 2013, p. 220). Instructional leadership teams therefore play a key role in developing and sustaining school improvement efforts by engaging other school staff in improvement work (Portin et al., 2013).

Central Office Involvement with ILTs

Some evidence suggests that central offices are also changing their work with school-based professionals other than principals, including by working more closely with leadership teams in individual schools (Anderson et al., 2012; Bottoms, & Fry, 2009; McLaughlin & Talbert, 2003). Linkages between central offices and school leadership teams help provide direction and guidance for underperforming schools and aid school reform work (Johnson & Chrispeels, 2010). One study found that three reforming school districts in California in part attributed their successes to the support provided by district leaders in enacting “inclusive planning processes” (McLaughlin & Talbert, 2003, p. 21) that closely involved teachers in decision-making and in supporting and facilitating a collaborative teacher culture. In their study, Bottoms and Fry (2009) found that principals of improving schools experienced a collaborative working relationship with central office leaders where district leaders actively helped principals build the capacities of their school leadership teams. Another study found that district leaders created systems that not only encouraged collaborative examination of individual schools’ performance and needs for support but also enabled the school district to work directly with leadership teams in schools (Anderson et al., 2012). Stosich (in press) found that the introduction of collaborative structures by central office leadership helped to build assistant principals’ capacities, alongside principals, to lead instructional leadership team efforts to advance instructional improvement.

Although there are some clear examples of how central offices have changed their work to provide support to school-based leaders and professionals more broadly, districts have generally not specified the principal supervisor’s role in this larger school improvement effort. While most districts expect principal supervisors to serve in dual, and at times competing, roles as both evaluators and providers of support for principals, the nature of the supports they provide differ widely (Corcoran et al., 2013; Thessin, 2019). And despite the primacy of principal supervisors’ roles in developing principals’ instructional leadership, principal supervisors still juggle multiple responsibilities, including leading or serving on districtwide committees, responding to parent concerns, serving as a liaison to school board members, and managing HR concerns, among others (Thessin et al., 2018). A survey of Council of Great City Schools districts in 2015 revealed the following five top activities for principal supervisors: a) conversing with principals about student performance data; b) visiting classrooms with principals; c) conversing with principals about their performance; d) conversing with principals about teacher performance; and e) assisting principals in responding to issues raised by parents or the community (Corcoran et al., 2013). The variation both across and within districts in the work of principal supervisors points to the continuing lack of clarity on how principal supervisors should best allocate their time to sup-

port principals in leading instructional improvement in schools.

We could only identify two studies that have considered the role of the principal supervisor specifically in building the capacity of school-based leadership teams. Goldring et al. (2018) found that some principal supervisors devoted some attention to working with assistant principals, coaches, and other school leaders, in part by including school leadership team members in building walkthroughs and school-based meetings. Stosich (in press) found that principal supervisors, in their work with high school principals, encouraged principals to share leadership responsibilities with teachers on their leadership teams and supported these teams' focus on improvement. This study provides some initial evidence that principal supervisors may contribute to the distribution of leadership through school leadership teams and thereby aid school improvement efforts, encouraging further research to understand the relationship between principal supervisors and ILTs more fully and explore potential results.

Conceptual Framing

The current study explores the degree and focus of principal supervisors' interactions with instructional leadership teams and the relationship between these efforts and leadership team members' perceptions of their schools' conditions for improvement. To frame our examination, we used the Internal Coherence Framework (Elmore et al., 2014; Stosich, 2014) due to its focus on leadership practices and organizational processes that demonstrate a school's capacity to engage in deliberate improvements in instructional practice and student learning across classrooms over time. The Internal Coherence Framework is organized around three domains: Leadership for Instructional Improvement, Organizational Processes, and Efficacy Beliefs. These three domains are interrelated, and as explained by Elmore et al. (2014), while not existing in linear relation to one another, do generally operate in a specific fashion. First, leadership practices lead to the creation of organizational structures and processes, fostering the culture of the organization, and then contributing to individual and collective efficacy beliefs, thereby ultimately raising student achievement.

Elmore et al. (2014) and Stosich (2014) further break down each domain of the Internal Coherence Framework into separate constructs. The constructs embedded within the three domains, which are outlined in Table 1, include: Leadership for Learning, Psychological Safety, Professional Development, Collaboration Around an Improvement Strategy, Teachers' Involvement in Instructional Decisions, Shared Understanding of Effective Practice, Support for Team, and Collective Efficacy (Elmore et al., 2014; Stosich, 2014). One aspect of Domain 2, Team Processes, was omitted from our study due to the questions' very narrow focus on the process of one specific grade level or professional learning community team's work, which would have been difficult to define for school-based leaders

who often support the work of many such teams.

Table 1

Internal Coherence Assessment Framework: Domains and Constructs

Domain 1	Leadership for instructional improvement
Leadership for learning	Leaders model learning, provide support to teachers in classrooms, visit classrooms frequently; and use observational data to provide feedback on instruction.
Psychological safety	Leaders create an environment conducive to adult learning in which risk-taking is encouraged; and teachers seek help in trying new practices.
Professional development	Leaders provide professional development that is connected to the school's improvement strategy, job-embedded and sustained, and focused on teachers' active learning about instruction.
Domain 2	Organizational processes
Collaboration around an improvement strategy	Organizational processes at the school level align resources and practices to meet improvement goals, monitor progress, and respond to learning needs in an ongoing fashion.
Teachers' involvement in instructional decisions	Teachers work together to develop improvement strategies, evaluate curricular and assessment materials, and design professional development that is tailored to their learning needs.
Shared understanding of effective practice	Team members have a shared understanding of effective instruction and a common purpose related to instruction.
Support for team	School leaders provide support for teacher teams by providing time to meet, providing direction for teamwork, giving teams autonomy, and holding them accountable.
Domain 3	Efficacy beliefs
Collective efficacy	The degree to which teachers believe they are collectively capable of attaining a specific goal and executing the actions needed to positively affect students.

These constructs formed the basis for our examination of the schools' leadership and organizational conditions for improvement as we analyzed the relationship between principal supervisors' interactions with ILTs and ILT members' perceptions of their school's leadership and organizational conditions for improvement.

Methodology

This study utilized a mixed methods design that relied on inter-

views, observations, documents, and survey data. Through a mixed methods approach, we sought to understand the degree and focus of principal supervisors' interactions with ILTs, and the relationship of this work to ILT members' perceptions of the school's organizational conditions for improvement. Such a mixed-methods approach enables a more complete understanding of a problem or phenomenon (Creswell, 2013).

As we describe the methods and findings in the following sections, we use pseudonyms for the name of the district, the name of the meetings held with central office administrators, and all participants and school sites in the study to protect confidentiality.

Site Context and Recruitment

The large Mid-Atlantic district selected as the site for this study, Cityline Schools, was chosen due to the district's implementation of a model of principal supervision focused on reducing principal supervisors' spans of control and on developing principals' instructional leadership. Ninety-five percent of the students in the Cityline Schools district are African American or Latinx, and 60% are low-income. In 2017-2018, the year of our data collection, approximately 30 of the district's 200+ schools had been designated as "high needs" by the district central office. As a result of this designation, most of these schools hosted at least four "Central Office Network" (CON) meetings throughout the year in which central office administrators, including the principal supervisors; met with members of school ILTs to review school progress and needs. CON meetings provided an opportunity for central office administrators across a variety of responsibility areas to convene at a school site to review both school progress and needs, and to determine next steps to support the school in ongoing improvement efforts.

Our selection of principal supervisors and principals leading high needs schools was intentional. Although principal supervisors in this district had a reduced (in comparison to most other large urban districts) supervisory load of 13 to 18 principals, principal supervisors still had to determine how to prioritize their time in schools. Cityline's provision of additional resources and supports, such as through quarterly CON meetings, to the district's high needs schools to raise student achievement suggested that principal supervisors might spend more time at these schools than at others for which they were responsible. Therefore, we also projected that principal supervisors would be most likely to interact not only with principals, but also with ILT members, at high needs schools to collaboratively lead improvement efforts.

Subject recruitment for this study was accomplished through an initial presentation to all of the district's principal supervisors and a follow-up email; after five principal supervisors consented to participate, we recruited principals whom they supervised who were also leaders of iden-

tified “high needs” schools. Each principal supervisor supervised two or three principals who joined the study. Ten principal/principal supervisor pairs completed both the qualitative and quantitative portions of the study and were included in our data analysis; descriptive information on the participants is presented in Table 2. Participants included principals from elementary and secondary schools. Principals had between one and four years of experience in the principal position. Principal supervisors had between one and seven years of experience as supervisors.

Table 2

Study Participants: Principal Supervisors and Principals

Supervisor/Principal	Years experience in education	Years experience in administration*	School level
Bill	33	17	-
Rory	25	11	Elementary
Carmen	20	15	-
Yora	20	13	Elementary
Nancy	24	16	Secondary
Jim	28.5	16	-
Mark	14	8	Secondary
Terri	20	11	Elementary
Sara	24	20	-
Samantha	19	9	Elementary
Paul	21	22	Elementary
Reagan	28	18	Elementary
Tammy	27	18	-
Carson	22	6	Elementary
Kara	21	10	Elementary

*Years experience in administration may include years as an assistant principal, principal, supervisor, and/or another type of educational administrative position.

Data Sources

Interviews, Observations, and Documents

Data sources for this study included twenty principal interviews and ten interviews of principal supervisors which were conducted at the initiation and at the conclusion of the study; 73 observations at school or central office locations; and documents gathered from the work of each of the principal-principal supervisor pairs. Participants were followed for between 10 and 16 months, from March 2017 to June of 2018, depending on their date of enrollment in the study. As some participants left their positions in the summer of 2017, data from their interviews and initial observations were not used for the study, and additional principals and principal supervisors were then recruited.

Our semi-structured interview protocols asked about the principal's leadership of improvement efforts and the principal supervisor's work with the principal. For this analysis, we focused on interview questions that asked about the principal's work with the ILT; the principal supervisors' work with ILTs; and on responses to questions in which the ILT emerged as a topic of discussion. In many instances, responses to our interview question on how the supervisor best supported the principal in changing his/her leadership practice led to the principal's discussion of work with the ILT.

Our observations included a variety of interactions between principal supervisors, principals, and instructional leadership teams, including: a) one-on-one meetings; b) work sessions; c) annual evaluation conversations between the principal supervisor and principal; c) team meetings at which the principal and/or the principal supervisor were present; and CON meetings, which included the principal, the supervisor, and many, if not all, members of the school-based instructional leadership team. Finally, we collected documents related to supervisors' work with principals and school-based teams, in addition to agendas and detailed notes from most instructional leadership team and CON meetings.

Surveys

To understand the relationship between principal supervisors' interactions with the ILT and leadership team members' perceptions of their schools' leadership and organizational conditions, we administered the Internal Coherence Survey (Stosich, 2014) in spring 2018 to ILT members in 10 schools. The Internal Coherence Survey, which was previously piloted and validated (Elmore et al., 2014; Forman et al., 2017; Stosich, 2014), focuses on three domains of leadership practice that research strongly links to school improvement (as described previously) (Elmore et al., 2014; Forman et al., 2017; Stosich, 2014). For most questions, respondents rat-

ed their agreement or disagreement with a series of statements using a five-point Likert-type scale ranging from 5 (“accurate”) to 1 (“highly inaccurate”). In one section, focused on “Shared Understanding of Effective Practice,” respondents rated the frequency with which they had engaged in a set of shared practices with their teams on a scale from 6 (“more than once a week”) to 1 (“almost never”).

The principals of the ten schools distributed a link to the online survey to their ILT members but had no other involvement in the survey data collection and were unaware of which ILT members completed the survey. The overall response rate for the survey was 74% (87 out of 117); school-level response rates ranged from 100% (in two schools) to 44% (in one school). Two respondents were removed from our analytic sample because they did not answer any questions in one section of the survey, leaving us with an analytic sample of 85 leadership team members. Participating ILT members held a variety of positions, including classroom teacher (48%); department chair/lead teacher (22%); and assistant principal (11%). The remaining ILT members held roles as data coaches, reading specialists, paraprofessionals, test coordinators, counselors, or administrative assistants.

Data Analysis

Qualitative Data Analysis

We used a descriptive coding approach in analyzing our interview data, observations, and documents and began coding immediately following completion of the first interview. Throughout the coding process, multiple members of the research team independently coded a subset of the data, then compared coding, and revised code definitions to achieve inter-coder agreement (Saldana, 2013). We also wrote reflective memos following each observation and after coding each interview. We utilized documents we gathered as additional evidence to confirm, or negate, themes that emerged during data analysis.

For this analysis, we examined principal supervisors’ interactions with school-based leaders, including other administrators at the school, teachers, and the ILT. We utilized the following codes, among others, to identify and further examine relevant data for this analysis: “supervisor and principal discuss shared leadership structures,” “supervisor and principal discuss the work of the ILT and building capacity of ILT members,” and “supervisor offers suggestions to principal.” We also reexamined our notes from each observation in which principal supervisors worked with, or attended, a school-based team meeting to understand the role the principal supervisor held in the meeting.

Survey Analysis

We began our survey analysis by examining the consistency of survey responses within the sections of the survey, each of which measured a separate construct of the Internal Coherence Framework. We found a great deal of consistency within sections, with alphas ranging from 0.85 to 0.94 for the eight measured constructs; we therefore computed the mean score for each respondent for each section of the survey. In the few cases where a respondent skipped a question in a section, we calculated the means using those questions for which we had responses.

To analyze the survey data, we created tables and figures of means for each construct measured by our survey, both overall and based on categories of principal supervisor involvement with ILTs that emerged from our qualitative analysis. We tested for statistically significant differences between group means using simple linear regressions where the dependent variables were individual ILT members' ratings of the survey scales, and the independent variables were indicator variables for these groups.

It is important to note that the Internal Coherence Survey was administered only to members of the participating schools' instructional leadership teams; we therefore are unable to determine whether ILT members' responses are reflective of wider perceptions of their schools' leadership and organizational conditions. Since ILT members may influence other teachers' perceptions due to their leadership positions (Little, 1995; Stosich, in press; Supovitz & Riggan, 2012), we believe their perceptions of their school leadership and organizational conditions are important in and of themselves, whether or not they are more widely representative.

Another limitation of our survey was that it was administered at only one point in time, near the end of our study. Without a prior survey, we are unable to look at changes in ILT members' perceptions of their schools' leadership and organizational conditions. This limits our ability to disentangle whether supervisors' interactions with ILTs impacted their perceptions of leadership and organizational conditions, or vice-versa. On one hand, the degree and focus of principal supervisors' work with instructional leadership teams could impact team members' perceptions of their schools' leadership and organizational conditions for improvement. On the other hand, team members' perceptions of their schools' leadership and organizational conditions could affect the degree and focus of supervisors' work with leadership teams. Our study does not aim to settle the question of the direction of the relationships, if any, between principal supervisors' interactions with ILTs and ILT members' perceptions of their schools' leadership and organizational conditions. Instead, we aimed to understand the degree and focus of principal supervisors' interactions with leadership teams, and to explore whether these interactions relate to the perceived leadership and organizational conditions needed for improvement.

Findings

While there was wide variation in the degree to which principal supervisors interacted with instructional leadership teams at the high needs schools participating in our study, there was some consistency in the focus of the principal supervisors' work with ILTs. At seven of the 10 participating schools, we found that principal supervisors had some, or a great deal, of interaction with ILTs, while at other schools, principal supervisors discussed the role of the ILT with principals but did not interact with the ILT directly. Our findings revealed that in schools where there was a greater degree of interaction between the principal supervisor and the ILT, ILT members had more positive perceptions of the school's leadership and organizational conditions for improvement. Qualitative results showed that principal supervisors' interactions with ILTs largely aligned with three constructs of the Internal Coherence Framework: Leadership for Learning, Professional Development, and Support for Teams. Two of these constructs were also the highest rated by ILT members on our survey.

Due to the large number of school-based teams led by each of the principals in our study, in reporting our results, we classified all interactions between the principal supervisor and school-based teams that included instructional leadership team members as "interactions with instructional leadership teams." In some cases, these meetings included central office staff other than the principal supervisor (i.e., CON meetings). We included all such interactions in our analysis because all of these interactions with principal supervisors presented opportunities for shared leadership and the learning and development of ILT members.

Degree of Principal Supervisor Interactions (RQ1)

Across the ten schools, we found that some principal supervisors interacted directly with ILT members to support their learning and development, while others discussed the role of the ILT in coaching conversations with the principal but did not have direct interactions with ILT members. To analyze this variation in the degree of interactions, we grouped the 10 schools into three categories: "minimal interaction" between the supervisor and ILT, "some interaction," and "a great deal of interaction." In terms of the "minimal interaction" group, we found that some supervisors had either no or few interactions with leadership teams, attending one or no ILT meetings over the period of our study. Schools where principal supervisors attended and/or participated in more than one ILT or administrative team meeting were categorized as having "some" principal supervisor involvement in ILT work. At four schools, the principal supervisor not only attended ILT, CON, and administrative meetings, but also interacted directly with ILT members. These schools were categorized as having "a great deal" of principal supervisor interactions with the ILT.

Minimal Interaction with the ILT

While some principal supervisors had no, or very few, interactions with ILTs at some schools, they engaged directly with principals by asking inquiry-focused questions about the role of ILT members and the work of the ILT during meetings with the school principal. Principals described how these reflective interactions focused on the principal supervisor's encouragement to build ILT members' capacity and to distribute leadership responsibilities to ILT members. One secondary school principal stated, "She [the principal supervisor] was like, you keep trying to do all of this on your own, and it's never going to happen. So you have got to find a way to distribute your leadership." As a result of coaching from her supervisor, this principal added that she began assigning additional responsibilities to ILT members ". . . putting some of the onus for support, direct feedback, and collaborative support and feedback for their teachers, putting some of that onus and responsibility on them [ILT members] has been invaluable." Through this shift toward collective leadership, the principal explained how her ILT members began to understand that they were also responsible for improving instructional practice.

Two principals explained how direct coaching by their principal supervisors helped them acquire new skills in working with leadership team members. One principal, Reagan, noted that the principal supervisor's coaching on providing effective feedback helped her to better model and teach her administrative/leadership team how to do the same: "what she did...help[ed] me help them." Principal Mark described how his supervisor supported and coached him, modeling an approach that he subsequently used in facilitating the growth of his ILT members:

It's a similar process to what I do with my leadership team. He'll shadow me on an observation or in my leadership meetings, and then afterwards, with the debrief, "Why did you do this? . . . Why did you put this person in this situation? What could you have done?" It just gives me different perspectives. So it helps me be more well-rounded as a leader.

Thus, this principal not only learned from his supervisor, but connected his learning from his supervisor to his work with his ILT.

While some principals described how their supervisors coached them to support the learning and direction of their ILTs, this was not the case at all schools. Indeed, some principals expressed a desire for more support from their supervisors in developing and leading the ILT. Principal Kara, for example, stated that she rarely talked with her supervisor about leadership teams, noting that "there may be a statement about what they should do or could, but there's no roadmap..." This principal desired that the supervisor interacted directly with her leadership team to facilitate her development but did not receive this support.

Some Interaction with the ILT

At three schools, principal supervisors had some interactions with the ILT, occupying the role as a participant on the team, as opposed to as a leader or co-facilitator of the team. At these schools, we observed principal supervisors participate in school-based administrative team or ILT meetings by offering a “welcome” at the beginning of the school-based meeting, asking a reflective question to the group, participating in a learning walk through classrooms with team members, giving explicit direction to team members on next steps, and passing private suggestions or ideas to the principal on note paper during the meeting, as a few examples.

At one elementary school, for example, the principal supervisor often attended school-based leadership team meetings but did not lead or facilitate the meetings. During a discussion we observed the supervisor offered his advice during the meeting and then directed the principal, after the meeting, to take charge and make a decision. This supervisor’s engagement in the team’s work, although indirect, contributed to subsequent principal actions. At other schools with some interaction by the principal supervisor, the principal supervisor’s role in attending the ILT meeting was limited to observing and evaluating the leadership of the principal. These observations would often be followed by a debrief and feedback conversation with the principal. While these examples detail the supervisor’s focus on the principal’s learning and development, as opposed to on the development of ILT members, in these cases the supervisor was often able to provide specific feedback and direction to the principal on next steps in working with the ILT. In contrast, at schools in which the principal supervisor did not attend ILT meetings, advice and coaching support on the principal’s work with the ILT was less frequent.

A Great Deal of Interaction with the ILT

Some principal supervisors interacted directly with ILT members by collaborating with the school principal (or other school leaders) in planning ILT meetings, modeling facilitation of ILT meetings, and leading professional learning at ILT meetings, among other actions. At Paul’s school, for example, the principal supervisor, principal, and another central office administrator collaboratively planned the quarterly CON meetings together. The principal supervisor and the central office administrator then facilitated the CON meetings, while the principal served in a participant role. At one CON meeting, the principal supervisor introduced a new data monitoring template to the CON members to demonstrate how it could be used to track the progress of students who had scored below grade level on countywide assessments. She then led the entire team through multiple tasks with fictitious students to demonstrate how the spreadsheet could be used by grade level teams.

At times, the principal asked the principal supervisor to lead specific professional learning activities with the ILT, while at other instances the principal supervisor initiated the interactions with the ILT. Nancy explained:

She has offered to do work with my administrative team around developing their strengths, really helping me . . . We've started that work. We didn't finish it. But the goal is so that we can help leverage their strengths to really move their work a little further... All I did was say, 'Here's the time frame,' and she worked with them directly on more than one occasion.

In many instances, the principal supervisor engaged in joint work with the principal to plan and/or facilitate ILT and administrative team meetings instead of leading the learning among ILT members on his/her own. Joint work is defined as engagement in the work of instructional leadership by both the principal supervisor and the principal (Thessin, under review). At multiple school sites, the principal supervisor and principal engaged in ongoing collaborative planning and implementation of ILT and CON meetings. The pair would jointly assemble the agenda for an upcoming CON meeting, each facilitate part of the meeting, debrief afterwards, and then plan a time to jointly map out the next meeting agenda. One elementary school principal explained that their agenda planning was less intentional, at times, but would still result in a plan for joint instructional leadership at an ILT or other school-based team meeting, "We would brainstorm, we'd just be having a conversation like this, and next thing you know, 'Why don't we try this? Okay. Who should facilitate that? I think maybe you can because you've got more expertise in that area, and I'll just kind of co-facilitate with you.'"

At schools where principal supervisors engaged in a great deal of interaction with the ILT, principals explained that their supervisors were members of the team. Paul described:

She has come in and not only helped me develop and smoothed me out a little bit, but I think what's very telling is that she is very visible and has a lot of interaction with the staff, especially the leadership team. When I bring up a staff member's name, she knows who I'm talking about. If I bring up a student's name for one reason or another, she probably knows that student or has seen that student do one thing or another. That's been refreshing.

At this school, the interactions between the principal supervisor and the ILT facilitated changes in the ILT's work to improve instruction across the school by the adoption of a monitoring tool they jointly revised and implemented together.

Focus of principal supervisor interactions with ILTs (RQ2)

Our analysis of principal supervisors' interactions with principals regarding the ILT's work, and with ILTs directly, identified three specific constructs of the Internal Coherence Framework as foci: 1) Leadership for Learning; 2) Professional Development; 3) and Support for Teams. As defined by Elmore et al. (2014) and further described in Table 1, Leadership for Learning is exemplified when leaders model learning, provide support to teachers in classrooms, visit classrooms, and use observation data to provide feedback on instruction. Professional Development is defined as job-embedded and sustained learning connected to the school's improvement strategy and focused on teachers' active learning about instruction. Support for Teams is exemplified by leaders who provide support for teacher teams by providing time to meet, providing direction for teamwork, giving teams autonomy, and holding them accountable. Brief examples of principal supervisors' engagement in each of these areas follow.

Leadership for Learning

Interview and observational data pointed to the common practice of principal supervisors and principals visiting classrooms together, discussing their observations, and then preparing feedback to be provided to the teacher. In fact, principals and principal supervisors at every participating school engaged in classroom observations together. However, at some schools, this coaching practice took place between the principal supervisor and the principal only. At others, the principal supervisor and the principal were joined by members of the administrative team or the broader ILT in visiting classrooms, discussing observations, and planning feedback to provide to the presenting teachers. We observed two instances when these collaborative learning walks were also joined by the district's Deputy Superintendent, and she, with the principal supervisor, participated in coaching ILT members as they discussed classroom observations and planned next steps for improving classroom instruction. In this way, central office supervisors developed not only the principal's skills as a leader focused on learning and instruction, but also the skills of the entire ILT to prepare all school-based leaders to observe and provide feedback on instruction to facilitate improved teaching and learning.

Professional Development

As described previously, in schools with a great deal of principal supervisor involvement in ILT work, principal supervisors often designed, facilitated, and co-facilitated professional learning opportunities for ILT and administrative team members. These professional learning experienc-

es included how to utilize new data tools, analyze data for the purpose of differentiating instruction, engage in the Data Wise improvement process (Boudett, City, & Murnane, 2014), form effective teams, observe classroom instruction, provide feedback to teachers, and many others. Principals described how sometimes their supervisors would volunteer to lead a learning session, and at other times the decision as to who would lead the session would be determined organically during a planning session between the principal and the supervisor. At all four of the schools in which the principal supervisor had “a great deal” of interaction with the ILT, the provision of professional development for ILT members (including the principal as a member of the ILT) was a central focus of their collaborative work.

Support for Teams

Not only did principal supervisors provide support for principals in sharing leadership with ILT members and in developing ILT members’ capacities to lead improvement, as described in a prior section, but in some cases supervisors also interacted with grade level or content area teams with the principal and with one or more members of the ILT to develop these teams’ capacity for improvement. As Carmen, a principal supervisor, described, “We’ve done a lot with her second grade and actually as a result, we have seen some movement in her data, and they were actually celebrated at our CON retreat for the gains.” At other schools in which there was a great deal of involvement by the supervisor in ILT work, principal supervisors used a planning/implementation/reflection cycle with the principal and with members of the ILT. For instance, at two schools, principal supervisors were observed planning an upcoming CON meeting with the principal and with one or more members of the ILT, implementing the plan at the meeting, and then debriefing the CON meeting with the ILT together. This deliberate process for planning and reflection with the team led ILTs at these schools to gain more responsibility for leadership of improvement on the school level and built the capacity of ILT members to lead the work themselves.

Perceptions of School Conditions for Improvement (RQ3)

ILT members generally rated their schools’ conditions for improvement highly; ILT members’ ratings of their schools’ conditions for improvement are presented in the first column of Table 3, which shows the overall means for each of the eight survey constructs across the entire sample of 85 respondents. The means for each construct were high, ranging from 3.84 (Teacher Involvement) to 4.44 (Leadership for Learning). The standard deviations of each measure were also substantial, however (ranging from 0.74 to 1.36), suggesting that there was significant variation

in ILT members' ratings of their schools' conditions for instructional improvement.

Table 3

ILT Members' Perceptions of Conditions for Improvement, Overall and by Level of Supervisor Interaction with ILT

	Overall	Principal Supervisor Interaction with ILT		
		Minimal	Some	A Great Deal
Leadership for Learning	4.44 (0.74)	4.21 (0.98)	4.68+ (0.47)	4.42 (0.69)
Psychological Safety	3.88 (0.87)	3.45 (1.08)	4.12 (0.70)	3.99 (0.76)
Professional Development	4.10 (0.87)	3.92 (0.89)	4.27 (0.90)	4.09 (0.85)
Collaboration on Improvement	4.11 (0.99)	3.79 (1.03)	4.32 (0.94)	4.16 (0.97)
Teacher Improvement	3.87 (0.82)	3.58 (0.91)	4.04 (0.64)	3.88 (0.85)
Collective Efficacy	4.13 (0.75)	3.93 (0.83)	4.20 (0.60)	4.21 (0.79)
Shared Understanding ^a	4.03 (1.36)	4.14 (1.25)	3.73 (1.67)	4.13 (1.25)
Support for Teams ^a	4.38 (0.81)	4.04 (0.95)	4.67** (0.69)	4.44* (0.75)
n	85	22	23	40

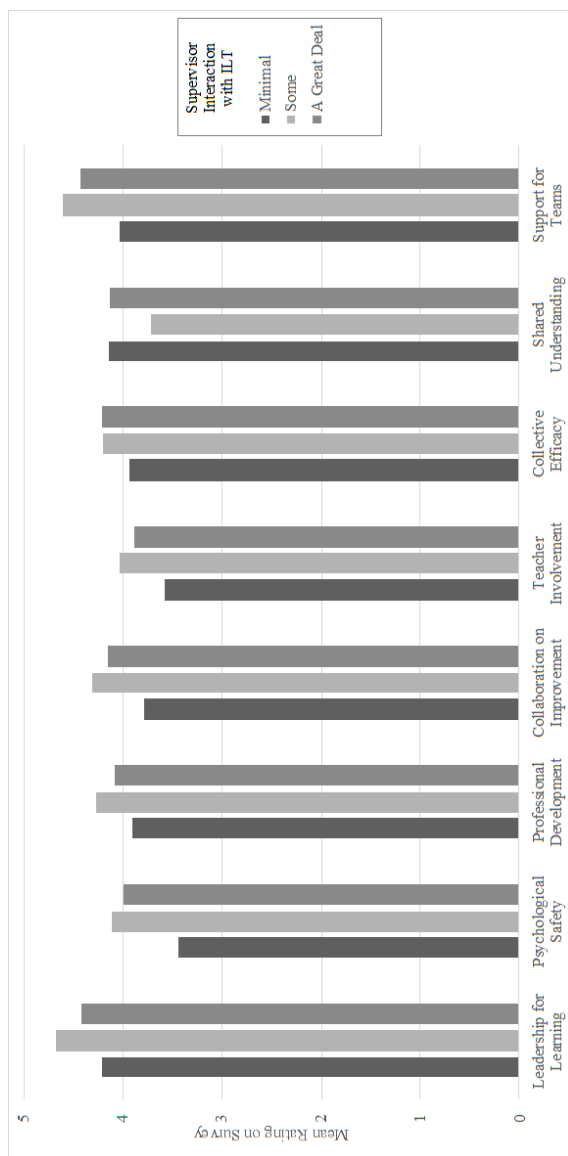
^a For these two sections, overall n=79, as these questions were only administered to respondents who indicated they participated in grade-level or content-area teams. Notes: All scales are measured on a scale from 5 ("Accurate") to 1 ("Highly Inaccurate"), except for the "Shared Understanding" scale, which was measured on a scale from 6 ("More than once a week") to 1 ("Almost never"). Scales are from the "Internal Coherence Assessment Protocol" (Elmore, Forman, Stosich, & Bocala, 2014; Forman, Stosich, & Bocala, 2017; Stosich, 2014). Significance levels are from comparisons with "None" group. + p<0.10,* p<0.05, ** p<0.01

ILT members' perceptions of their schools' conditions for improvement differed depending on the degree of principal supervisor interactions with the ILT. The second, third, and fourth columns of Table 3 show that ILT members' perceptions of their schools' leadership and organizational conditions for improvement at schools with "some interaction" and "a great deal of interaction" by the principal supervisor were more positive than ILT members' perceptions of the conditions for improvement in schools with "minimal" interactions by the principal supervisor.

Results by level of supervisor involvement for each of the eight constructs are depicted in Figure 1, which shows that for seven of the eight constructs, ILT members on teams with “minimal” principal supervisor interactions with the ILT (dark gray bars) gave lower ratings to their schools’ conditions for improvement than ILT members on teams with “some” or “a great deal” of interactions from the principal supervisor (light and medium gray bars). The one exception to this pattern of results was the Shared Understanding of Effective Practice construct, where ILT members on teams with “minimal” interactions by the supervisor with the ILT rated their schools’ conditions for improvement higher than the other two groups.

Figure 1

ILT Members' Perceptions of Conditions for Improvement, by Level of Supervisor Interaction with ILT



Notes: For “minimal” supervisor interaction with ILT group, n=22 ILT members; for “some” involvement group, n=23 ILT members; for “a great deal” group, n=40 ILT members.

Regression analyses that compared the means of each construct across the three categories of supervisor interaction with the ILT were generally unable to statistically distinguish between the means of the constructs across the three groups; these comparisons were limited by the relatively small numbers of survey responses in each group. The exception was the Support for Teams construct, where ILT members on teams with both “some involvement” and “a great deal” of interactions with principal supervisors rated their schools’ conditions for improvement significantly higher than ILT members on teams with minimal interactions from the principal supervisor. The magnitude of this difference—roughly half a point on a five-point-scale—was also substantial.

It is important to note that our survey analysis also showed that the two survey constructs that displayed the highest overall means - Leadership for Learning and Support for Teams - were among the three areas in which we found that supervisors focused their work with ILTs based on the qualitative data gathered. The Leadership for Learning construct had the highest overall mean across the sample (4.44 on a five-point scale) of any of the eight constructs, while Support for Teams had the second-highest overall mean (4.38).

Discussion and Conclusions

Our study explored principal supervisors’ interactions with ILTs, focusing particularly on the degree and focus of these interactions and their relationship to instructional leadership team members’ perceptions of their school’s leadership and organizational conditions for improvement. Our study aimed to address the relative lack of research on the role of principal supervisors in supporting the learning and development of school leaders other than the principal in facilitating school improvement. Given that the ILT is an established organizational structure in schools, the ILT is a likely avenue for the development of distributed leadership to facilitate school improvement at the school level through the support and guidance of the principal supervisor.

Findings from our study revealed that principal supervisors working with high needs schools participated in and supported ILT members’ learning and development to varying degrees, though there was consistent agreement in the focus of these interactions. Further, our results demonstrated that ILT members’ perceptions of their school’s conditions for improvement had some relation to principal supervisor interactions with the ILT. Due to the high needs designation of all of the schools that participated in this study, and the district’s unifying approach to hold CON meetings attended by central office administrators at each site, one might have predicted that the degree of interactions by principal supervisors at these sites would have been similar. Our findings revealed that this level of coordination and similar intent among the principal supervisors was not present

across the district's high needs schools.

There are myriad factors that deserve further study and may have influenced the variation in principal supervisors' support to high needs schools in the Cityline district. The principal supervisors who participated in this study had all previously been successful principals in the school district where they then worked as supervisors. It is possible that supervisors' past experiences as principals, and their work with their ILTs in their own schools as principals, may have influenced their interest in, or lack of interest in, supporting ILT development at the schools they supervised. Specific aspects of the partnership between the principal supervisor and each principal likely also influenced the degree to which the principal supervisor was able to support the development of other school-based leaders. Our prior work found that productive partnerships between principal supervisors and principals can facilitate changes in principals' instructional leadership practice (Thessin, 2019). Therefore, establishment of a productive partnership between the principal supervisor and the principal may also have led to greater involvement by the principal supervisor in the work of ILTs at some schools.

Principal supervisors may also have had differing conceptions of their roles and responsibilities, leading to differing degrees of interactions with ILTs. As noted above, the principal supervisor role has shifted from one focused on solving administrative problems and ensuring compliance to one in which the supervisor is expected to serve as a coach who facilitates principals' learning and growth as instructional leaders (Browne-Ferrigno & Allen, 2006; Clarke & Wildy, 2011; Honig, 2012; Johnson & Chrispeels, 2010; Leithwood, 2010). This shift in expectations is further compounded by the dual expectation that principal supervisors serve as evaluators (Thessin, 2019). The lack of clarity regarding principal supervisors' roles was apparent when two principal supervisors admitted that the rubric by which they were evaluated by the district's associate superintendents did not align with the district's current expectations for their roles. Because of this lack of role clarity, it is possible that some principal supervisors in the study viewed their roles as primarily one of supervising principals, which would lead them to focus their time and efforts on coaching and evaluating the principal only and would not include time for developing or supporting the ILT. However, other principal supervisor/principal pairs described their shared goal of facilitating improved student achievement at their school sites. In our study, principal supervisors who shared responsibility for school outcomes with principals also engaged in joint work with principals to build ILT members' capacity to lead school improvement.

Despite the wide degree of variation in the degree of principal supervisor interactions with ILTs, there was consistent agreement in the focus of these interactions, as evidenced by both our qualitative and quantitative results. By observing teachers in classrooms and collaboratively

engaging teachers in reflection on their practice in both learning walks and in individual classroom observations, principal and principal supervisors demonstrated their continued work in the Leadership for Learning construct. Principal supervisors who interacted “a great deal” with ILTs were often involved in planning, implementing, and facilitating Professional Development at their schools. And many of the principal supervisors dedicated instructional leadership efforts to building the capacity of both ILT members and other school-based teams, which aligns with the Support for Team construct, by doing this work directly or by coaching the principal to do so.

In terms of our survey analysis, we found that ILT members rated their schools’ conditions for improvement more highly when they worked on teams with “some” or “a great deal” of interaction with the principal supervisor, compared to teams with minimal interaction. It is possible that the principal supervisors’ actions to build ILT members’ capacity to lead improvement contributed to their perceptions of the conditions for improvement. However, as discussed above, based on our analysis, we cannot determine the direction of the relationship between ILT members’ perceptions and principal supervisors’ interactions with ILTs. One possibility is that principal supervisors interacted more with principals and ILTs in schools where the principal and the supervisor had a collegial relationship and the shared goal of facilitating improved student achievement, which may have contributed to higher perceptions by ILT members of the school’s leadership and organizational conditions for improvement (Thessin, 2019). An alternative explanation of our findings, however, is that principal supervisors chose to interact more with ILTs at schools where the principal had already initiated efforts to address the school’s leadership and organizational conditions for improvement, and therefore the survey results may have been similar with or without the principal supervisor’s interactions with the ILT. Our finding of a relationship between the degree of principal supervisors’ interactions with ILTs and schools’ leadership and organizational conditions for improvement deserves further attention and research.

Further, our findings have implications for the preparation of principal supervisors and the communication of expectations of principal supervisor roles, as demonstrated by the varied degree of interactions with ILTs by the supervisors in our study. However, the alignment in the focus of principal supervisors’ work that emerged from our study suggests that there is some common understanding of the principal supervisor’s new role to develop principals’ instructional leadership capacity to facilitate improved student achievement. One might conclude, perhaps, that principal supervisors are gaining clarity in the new purpose of their role but need additional preparation, guidance, and learning opportunities to understand “how” to achieve this purpose. This additional preparation and professional learning will be particularly important for principal supervi-

sors who are responsible for facilitating improvement with principals at high needs schools, where consequences for students who have traditionally not been served well are highest. We have clear evidence that wider involvement in instructional leadership is associated with gains in student learning (Leithwood & Jantzi, 2012; Marks & Printy, 2003; Printy et al., 2009); our findings further show that ILT members' perceptions of their school's conditions for improvement are related to principal supervisor interactions with the ILT. It is therefore plausible that principal supervisors may contribute to improved student achievement, particularly in high needs schools in which improvement is needed quickly, by facilitating both the principal's instructional leadership learning and the learning of members of the ILT.

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