Learning from Post-Observation Conferences: Emerging Measures of and Mechanisms to Improve Principals' Feedback to Teachers

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Learning from Post-Observation Conferences: Emerging Measures of and Mechanisms to Improve Principals' Feedback to Teachers

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Abstract

As principals seek to strengthen their impact on teaching and learning, it is critical to understand how principals provide feedback to teachers about their instruction and the focus of those conversations. This study examined the content and quality of principals' ($N = 4$) verbal feedback to teachers ($N = 11$) during post-observation conferences ($N = 11$) and teachers' perceptions of that feedback. In post-observation conferences, principals emphasized students' opportunities to learn and supportive classroom environment, but rarely provided feedback on curriculum sequencing, the balance of procedural and conceptual knowledge, and teachers' review and feedback to students. The quality of post-observations conferences was rated relatively high by the research team and teachers, with 100% of teachers indicating they were likely or very likely to change their practice based on the feedback they received. Concrete examples from teachers of effective and ineffective feedback are provided. Implications of study findings are discussed.

Keywords

instructional leadership; teacher supervision; teacher evaluation; teacher change; teacher development; principals; feedback

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Introduction

With the proliferation of instructional leadership (IL) models in the last three decades (e.g., Bush & Glover, 2014; Goldring et al., 1999; Hallinger & Murphy, 1985; Hallinger, 2009), there has been an increased call for administrators to be exceptional instructional leaders, underscoring principals' role in observing and providing teachers with feedback, in formative (e.g., supervision) and summative (e.g., evaluation) ways (Harris et al., 2017). In the U.S., teacher evaluation (TE) reform has amplified these developments. Today, elementary principals spend a third of their time on instructional support, with nine hours/week evaluating and monitoring instruction and providing feedback to teachers (National Center for Education Evaluation, 2021). It costs $700 million a year to observe all 3.1 million K-12 public school teachers *just twice a year*, which is typically the minimum number of observation principals complete per teacher/year (Dynarski, 2016). Yet, adequate reliability requires three observations for formative (supervision) purposes and nine for summative (evaluation) purposes (van der Lans et al., 2016). Thus, while an important pathway for principals to increase student learning (Grissom et al., 2021), when done reliably, teacher supervision (TS) and TE are time-consuming and costly.

Despite all the time and money dedicated to observation and feedback, it is difficult to do these tasks well. Extensive documentation is required, increasing the time that principals spend writing their evaluations and recording data from observations. This constricts the actual time principals spend observing and providing teachers with meaningful feedback (Flores & Derrington, 2017). Principals struggle to complete all required observations (Lavigne & Chamberlain, 2017; Donaldson & Woulfin, 2018; Goldring et al., 2015; Kraft & Gilmour, 2016). As a result, almost half of teachers feel that the feedback they receive from their principal is not useful (Cherasaro et al., 2016).

However, the mere nature of being observed may influence teachers. Teachers appear to improve their instruction during periods in which they are more likely to be observed, and they improve with subsequent observations (Phipps & Wiseman, 2021). Likewise, active supervision can help facilitate teacher collaboration and collective efficacy, fostering student learning (Goddard et al., 2015). While the causal link between observation and feedback and instructional improvement is difficult to confirm, these findings do suggest that observation and feedback matter, when done well.

Principals agree (Goddard et al., 2015; Phipps & Wiseman, 2021) and request more and better support on this aspect of IL (Sporte et al., 2013). This requires improved knowledge about how principals enact characteristics of effective observation and feedback by moving beyond measures of the quantity (e.g., time allocation, frequency) of IL practices (Grissom et al., 2013; Robinson et al., 2008), to the content or quality. This gap in the literature was noted by others more than a decade ago (Coplan, 2010; Ebmeier, 2003; Ebmeier & Nicklaus, 1999). Few having addressed it since (see Hunter & Springer, 2022; Lochmiller, 2016; Mihaly et al., 2018). Thus, the actual practice of principals' observation of and feedback to teachers remains under-studied with very few researchers who have directly captured the *actual* principal-teacher feedback conversations.

Without knowing how principals' observation of and feedback to teachers is a lever for improving teaching, policymakers and practitioners cannot enact these IL practices in ways that yield positive outcomes (Robinson et al., 2008). As such, this study examines the content and quality of principals' *verbal* feedback to teachers about their instruction during post-observation conferences (POCs) and teachers' perceptions of that feedback.

The possible effects of IL practices like TS and TE, specifically observation and feedback, fall under the larger theoretical and research-based literature on principal effects on student learning. Grissom et al. (2021) note that principal effects on student learning are nearly as large as teacher effects and are even larger in scope because principals' effects on students span the entire school, not just a classroom. In short, principals matter, and principals have been increasingly encouraged to be strong instructional leaders, in part because a focus on the core of what teachers do—teaching—and the outcomes they intend to achieve with their actions—student learning—is a central, if not the most important activity of schools.

To articulate *how* principals achieve student outcomes through teachers (people capacity), we draw from Hallinger's (2011) leadership for learning model. Hallinger (2011) purports that leaders' influence on student outcomes is mediated, indirectly, through school-level processes such as supervision and evaluation, one of ten IL activities under managing the instructional program (Hallinger & Murphy, 1985). Through instructionally-focused interactions with teachers (Grissom et al., 2021), principals build an environment of academic press and center student achievement by "coordinating, controlling, and supervising the curriculum and instruction" in their schools (Hallinger, 2010, p. 70). This requires principals to know about teaching practices that are consistently related to student learning as they engage in feedback and observation processes tied to supervision and evaluation (Hallinger, 2005).

Conceptually, principals perceive TS and TE as overlapping tasks as it pertains to supporting and monitoring teachers and their effectiveness and improvement, targeting areas for improvement, and developing a collective building conscious of instruction that informs instruction practice (Mette et al., 2017). Empirically, decades of research affirm this theoretical model by documenting a significant impact of IL on school and learning outcomes (Bush & Glover, 2014; Glickman et al., 2018; Polatcan, 2021; Robinson et al., 2008), with principals' planning, coordinating, and evaluating teaching and curriculum having a considerable effect (.42) (Robinson et al., 2008), and teachers' perceptions that the principal supports good teaching explaining 65% variances in teachers' confidence in their principal (Ebmeier, 2003). Together, this evidence points to IL and more specifically principals' observation of and feedback to teachers as perhaps one of the more important mechanisms by which school leaders influence teaching outcomes.

Literature Review

To contextualize the conceptual framework and the present study (which was conducted in the U.S.) in today's schools, we first discuss the current landscape of TE in the U.S. We then explore the role of principals as instructional leaders and what is known about how principals engage in observation and feedback.

The Current Landscape of Teacher Supervision & Evaluation in the U.S.

Principals' observation of and feedback to teachers functions under the larger structure of TS and TE. Supervision often "travels incognito" because it has been overshadowed by educational administration and instructional leadership (Glanz & Hazi, 2019). Exacerbating this issue is that supervision is inextricably intertwined with evaluation (Hazi, 1994). The current landscape of TE in the U.S. can be traced back to Race to the Top (RttT)—a competitive grant that was launched in 2009 (Lavigne & Good, 2015).

RttT-informed TE models translated to several changes, such as greater application of high stakes to TE ratings (Steinberg & Donaldson, 2016), increased use of value-added models or student growth measures to determine teacher effectiveness, and more observations and POCs. Despite changes in TE models in almost all states (Howell, 2015; National Council on Teacher Quality, 2017), these efforts have been futile and have yielded no improvements in teaching or student learning (Garet et al., 2017; Lavigne & Good, 2019; Stecher et al., 2018).

With the adoption of the Every Student Succeeds Act (ESSA) in 2016, local control provided state education departments and policymakers with the opportunity to overhaul their TE systems. With greater scrutiny and attention to the measures and methods of assessing effective teaching, principals indicated that the more structured rubrics that emerged from these reforms helped guide their observations, improved their feedback, and allowed them to communicate with their teachers more honestly with more constructive feedback (Wieczorek et al., 2018). However, changes to the actual TE models were limited as Close et al. (2019) found that observations of teachers remained to be the most frequently used measure.

Thus, modern-day policies and practices position observation and feedback as the *major* mechanism for improving instructional practice in TE. Some refer to this approach as TE for teacher growth and development (American Institutes for Research, 2014) as evident in the conflation of formative and summative feedback in states' post-ESSA TE models (Mette et al., 2020). Considering this policy context, we now examine the literature on principals in their supervisory and evaluative roles, and the literature on how principals seek to improve instructional practice through observation and feedback.

Principals as Teacher Supervisors and Evaluators

Theory and research affirm the value of IL. However, findings on the effectiveness of principals as instructional leaders are mixed. When principals *are* effective instructional leaders, they validate and empower teachers, and teachers perceive classroom visits and the post-observations that follow as coaching, enhancing and establishing professionalism, and affirming principals as a visible presence in the classroom and school (Zepeda, 2017). Teachers believe the extent to which principles build teachers' capacity to self-reflect on their teaching as a part of this process is critical (Mette et al., 2015). Yet, when teachers perceive supervision as merely a "dog and pony show" (Nelson, 2010, p. 43), a checklist to complete or a formality, a fix-it list, a weapon to humble or punish teachers, or an unwelcome intervention, supervision is likely not effective in promoting instructional improvement (Zepeda, 2017).

Factors that influence principals' supervision and evaluation of teachers. Factors that influence principals' supervision and evaluation of teachers include: principals' efficacy (Kalule & Bouchamma, 2014), the linguistic diversity of the school's student population (Azovide & Bouchamma, 2021), principals' knowledge of generally effective teaching practices (Hunter & Springer, 2022), and principals' subject area knowledge (Lochmiller & Acker-Hocevar, 2016; Steele et al., 2015). Quebec Fuentes and Jimerson (2020) note that feedback can be constrained and limited to only generic aspects of instructional practice when leaders and teachers do not share content level, and even grade level expertise. Stein and Nelson (2003) argue that principals should leverage leadership content knowledge (LCK) – or "knowledge of the subject, how it is learned (by adults as well as students), and how it is taught" when observing and providing teachers with feedback.

Principals' barriers to effective observation and feedback. Given all the demands placed upon school leaders, principals find it difficult to make time for IL (Goldring et al., 2015). Furthermore, given the pressures of accountability, evaluation and more summative needs often overshadow growth and development, or the more supervisory roles and aspects of observation and feedback (Zepeda, 2006). As such, teachers' strong negative feelings towards evaluation have tainted their more positive perceptions towards supervision (Carreiro, 2020).
These findings align with the concerns noted by various scholars about the barriers that principals face when supervising and evaluating teachers Lavigne & Good, 2015; Horng & Loeb, 2010). Lavigne and Good (2019) argue that two major and well-documented barriers are: lack of time and training (Donaldson & Woulfin, 2018; Flores & Derrington, 2017; Goldring et al., 2015; Herlihy et al., 2014; Kraft & Gilmour, 2016, 2017; Lavigne & Chamberlain, 2017; Range et al., 2011; Stecher et al., 2018).

Principals' observation and feedback practices. To cope with high observation loads, some principals have conducted fewer observations by delegating the task to others or shortened the time they spend observing (Donaldson & Woulfin, 2018; Hunter & Rodriguez, 2021; Stecher et al., 2018). Time demands have reduced principals' abilities to rate teachers ineffective (Kraft & Gilmour, 2017) and document deficiencies (Range et al., 2011). Furthermore, principals' feedback to teachers is infrequent, brief (Kraft & Gilmour, 2016), and shorter than the time principals spend on observation (Turnbull et al., 2009). When providing teachers with feedback on their instructional practice, principals use their past experiences as teachers to anchor their feedback (Lochmiller, 2016). Feedback is focused on pedagogy and generic teaching practices (Kraft & Gilmour, 2016), especially when school leaders lack LCK (Nelson, 2010; Stein & Nelson, 2003). In the closest study related to the current study, Hunter and Springer (2022) found that principals' written feedback to early-career teachers rarely included the four critical feedback characteristics of evidence-referencing, goal setting, aligned to improvement area, and actionable. Over a year, only half of the teachers received actionable or goal-setting feedback. We recognize, however, without proper time and training, principals may not be able to conduct POCs in ways that teachers find valuable—focusing on constructive feedback as well as strategies that prioritize improving student success (Mireles-Rios & Becchio, 2018)—or that is considered effective in the above-mentioned literature.

In summary, we have established that principals can influence student learning by observing and providing feedback to teachers on their instructional practice. However, principals must

overcome numerous barriers to do these practices well. These barriers may explain why findings that *time* spent on day-to-day instructional activities are marginally or not at all related to student learning outcomes (Grissom et al., 2013) and why more rigorous TE models that require principals to be in classrooms and provide feedback more often have been unsuccessful in improving teaching and learning.

Methods

Given recent evidence suggesting that observation can have value for instructional improvement (Phipps & Wiseman, 2021) and that teachers desire specific feedback and observable data from their school leaders and want to be observed often (Anast-May et al., 2012), the effectiveness of observation and feedback may lie, in part, in the quality, not quantity, of these practices. Expanding upon the work of Hunter and Springer's (2022) research on the qualitative aspects of written feedback, we examine the content and quality of principals' *verbal* feedback to teachers in post-observation conferences and teachers' perceptions of that feedback.

The following questions guide our study:

RQ1. What are principals' self-reported instructional leadership practices, preparation in teacher supervision and evaluation, and related knowledge to supervise and evaluate teachers?

RQ2. What is the content of feedback that principals provide to teachers in post-observation conferences?

RQ3. What is the quality of the feedback that principals provide to teachers in post-observation conferences?

RQ4. What are teachers' perceptions of the quality of feedback that principals provide?

    RQ4a. What are teachers' perceptions of the most and least useful aspects of the feedback?

RQ5. What are principals' perceptions of the least and most challenging aspects of providing feedback to teachers?

Effective Feedback Project

The current study represents data from the Effective Feedback Project. Launched during the 2018-2019 year, the project's goal was to examine the content and quality of feedback that principals provide to teachers during POCs. Conceived as a non-experimental descriptive study, POCs were the primary unit of analysis to center the phenomena of feedback in its real world-context of a common practice in K-12 schools (Siedlecki, 2020). To better situate the quality and content of the POCs, data were also collected from principals about their perceptions. Likewise, as feedback is only as effective as it is received, data were also collected from teachers about their perceptions of the feedback they received (Drago-Severson & Blum-DeStefano, 2016).

Recruitment

All principals ($N = 46$) employed in two participating school districts that serve suburban, urban, and rural students in a southwestern state in the U.S were recruited to participate in the study. Elementary, middle, and high schools were included for recruitment. All principals were contacted by email and phone regarding their interest in participating. From each of the principal's schools, we randomly selected seven teachers to recruit. Teachers were recruited through emails, phone calls, and in-person visits to the school.

In both districts, the highest-ranking building-level school leader held the primary responsibility of most formative classroom visits, and all summative, formal evaluation classrooms visits where teachers may have received in the form of a post-observation conference. While the research team did not collect data on sources of feedback beyond that offered by the principal, in both districts, teachers had access to instructional coaches or specialists, and at the secondary level, may also have had access to department chairs who could have provided additional content-based feedback and support. Furthermore, the research team chose to prioritize verbal feedback given its active nature, however, both districts utilize an electronic system for recording observations (tools and ratings) and it is possible that teachers in this study also received written feedback.

Participants

A total of 4 principals and 11 of their teachers in one of the two districts agreed to participate and have complete data for the variables analyzed in the current study. Two participating principals identified as female, two as male, and all as white. Participating principals ranged in age from mid-thirties to sixty and boasted anywhere from six to twenty years of teaching experience. Ninety percent of teachers identified as white, 60% of teachers identified as male, and 40% identified as female. Teachers ranged in age from 26 to 51 and had less than a year to over sixteen years of teaching experience.

Procedures and Instrumentation

Principal Survey. To provide descriptive information on participants, principals completed a pen-and-paper 42-item Principal Survey at the start of the study. The Principal Survey is a modified version of the Principals' Instructional Supervision Behaviours Scale (Ilgan et al., 2015). It was adapted to include questions about preparation (e.g., How satisfied are you with the training you received in supervising and evaluating teachers from your principal preparation program?), as well as perceived skills and knowledge pertaining to observing teachers and providing feedback to improve instruction (e.g., At this moment how would you judge your knowledge of those teaching behaviors most associated with student progress on standardized tests?), as included in prior research on principals' perceptions of supervision and evaluation (Lavigne, 2018; Lavigne & Chamberlain, 2017; Lavigne & Olson, 2019). For most items, a 4- or 5-point Likert scale was utilized, with a higher score indicating greater satisfaction, skill level, or frequency. Two open-ended questions were asked of principals about what aspects of TE and TS were the easiest and most challenging. Demographic information (e.g., age, race, gender) was also collected as part of the Principal Survey.

Post-Observation Conference. For each principal-teacher dyad, one POC was audio-recorded by a research team member, although the research team member was not present during the duration of the conference. POCs were typically held immediately following an observation or at some point during the same day of the observation and typically lasted no more than thirty minutes.

Coding post-observation conferences. After POCs were audio recorded and transcribed, transcriptions were coded for content and quality. *Content* of POCs were scored using the High Impact Practices Scoring System (HIPSS) (Lavigne, 2019a) and manual (Lavigne & Ridge, 2019). This scoring system was developed by the first author and evaluates the content of feedback given to teachers by principals. Specifically, it measures the frequency at which principals give feedback on fifteen high-impact practices. To establish construct validity, the HIPSS is composed of instructional practices that have consistently been linked to student achievement gains (Good & Brophy, 2008), such as: appropriate expectations, effective use of time, intellectual push. Each instructional practice is scored with a 1 (not mentioned or absent during the POC), 2 (occasionally mentioned in the POC), or 3 (frequently mentioned in the POC, meaning three or more instances of that instructional practice were noted). Indicator scores are summed to reach a final HIPSS score for the POC. It is important to note that the HIPSS score does not indicate the quality of the feedback, more so the frequency and quantity of content contained therein that is focused on effective teaching practices. See Appendix A.

The *quality* of the POCs (the feedback) was scored using the Feedback Assessment Scoring System (FASS) (Lavigne, 2019b) and manual (Lavigne et al., 2019). To establish construct validity, the FASS was informed by conceptual and empirical literature, that captures seven components of effective feedback: (1) clarifies performance expectations, (2) facilitates self-reflection, (3) delivers information that is not contested (4) promotes improvement, (5) provides clear information, (6) establishes a balanced account of performance, and (7) encourages dialogue related to teaching and learning (Baumeister et al., 2001; Brinko, 1990; Friedkin & Slater, 1994; Hattie & Timperley; 2007; Kluger & DeNisi, 1996, 1998; McDonald & Boud, 2003; Mette et al., 2015; Nicol & MacFarlane-Dick, 2006; Taras, 2001, 2002, 2003). Each component is scored on a 5-point Likert scale (5 = highly effective). Component scores are summed to determine a total FASS score. See Appendix B.

Teacher Survey. To ascertain descriptive data to describe teachers' perceptions, following the POC, teachers completed a 23-item Teacher Survey. The Teacher Survey assessed teachers' perceptions of the quality of the feedback they received in ways that mirrored the FASS, and the extent to which they intended to put the feedback into practice. Quality of feedback was measured using teachers' responses to ten questions and statements (e.g., How would you rate the overall quality of feedback you received in the POC? The feedback I received in the POC promotes my improvement.) using 5-point Likert scales with high scores representing strong agreement or likelihood. Teachers responded to two open-ended questions about the most and least useful aspects of the feedback they received from the recorded POC. The Teacher Survey also included demographic information (e.g., age, race, gender).

Results

Here we summarize the results of our study. We organize our findings by research question. To reiterate, these questions seek to center and inform our understandings of the content and quality of principals' *verbal* feedback to teachers in post-observation conferences and teachers' perceptions of that feedback.

RQ1. What are principals' self-reported instructional leadership practices, preparation in teacher supervision and evaluation, and related knowledge to supervise and evaluate teachers?

Table 1 presents descriptive statistics from the Principal Survey. Notably, as a group these school leaders indicated that they endorse and support cooperation among teachers, a professional, collaborative culture of learning in their schools (e.g., 100% very frequently or frequently problem-solve with teachers about areas of improvement, 100% very frequently encourage cooperation between teachers), but peer observation and related support mechanisms are not salient, and neither are formal pre-observation conferences (e.g., 100% rarely or never meet with teachers about lesson objectives or expected student outcomes before an observation). All principals (100%) indicated needing more knowledge on the instructional practices most consistently related to student achievement outcomes. Individual variation is noted on the reported preparation for and engagement in IL practices. While some principals felt strongly about their ability to provide helpful feedback, others reported the need to improve in this area. Likewise, the extent to which a school leader reported a focus on academic outcomes and content-related feedback varied across principals.

RQ2. What is the content of feedback that principals provide to teachers in post-observation conferences?

The goal of the second research question was to assess the content of feedback principals in this study provided to eleven teachers in their eleven POCs. On a possible scale from 15 – 45, total HIPSS scores ranged from 20 – 28. Across eleven POCs with eleven different teachers, none of the fifteen high impact practices measured in the HIPSS were noted frequently during the POCs. The most discussed instructional practice in was opportunities to learn and supportive classroom environments, mentioned often in 45% and 36% of conferences, respectively. The instructional practices discussed the least were coherent curriculum sequencing, the balance of procedural and conceptual knowledge, and review and feedback. In 90% of post-observation conferences, principals rarely provided feedback on these aspects of instruction. See Table 2 for descriptive frequencies.

See Figure 1 for an illustration of the variance in frequency of context discussed across POCs. While Table 2 provides overall frequency of what was discussed, Figure 1 illustrates the variation in the content of those discussion by POC, beyond those overall descriptive patterns. For example, Figure 1 demonstrates that POC #2 focused on the aspects of active teaching, teaching to mastery, and review and feedback, whereas in POC #11, opportunity to learn and effective use of time were the aspect of instruction most discussed. Figure 1 illustrates that school leaders (and perhaps teachers as well) engaged in differentiated POCs by content.

Table 1. *Descriptive data of principals' responses to the Principal Survey ((adapted version of the Principals' Instructional Supervision Behaviours scale (Ilgan et al., 2015))*

Reported Engagement in Instructional Leadership Behaviors*	Very Frequently	Frequently	Occasionally	Rarely	Never
1. Pay attention to teachers' instructional problems.	25%	50%	25%	—	—
2. Encourage creativity in teaching.	—	50%	25%	25%	—
3. Visit classes in order to support/improve teaching.	—	50%	50%	—	—
4. Inform teachers about the procedures and aims regarding classroom visits.	—	—	100%	—	—
5. Meet with teachers regarding objectives of the lesson and expected student outcomes before classroom visit.	—	—	—	25%	75%
6. Meet with teachers and provide feedback following classroom visits.	25%	25%	50%	—	—
7. Reward successful teachers based on concrete actions.	—	—	50%	25%	25%
8. Encourage teachers to attend professional development activities.	50%	25%	25%	—	—
9. Encourage teachers to implement and share experiences gained from professional development activities.	25%	75%	—	—	—

Table 1, cont.

Reported Engagement in Instructional Leadership Behaviors*	Very Frequently	Frequently	Occasionally	Rarely	Never
10. Make lifelong learning a part of the school system.	50%	50%	—	—	—
11. Create a school atmosphere based on transparency and mutual trust.	50%	50%	—	—	—
12. Provide feedback regarding teachers' performance	50%	50%	—	—	—
13. Encourage teachers to engage in peer observation.	—	—	75%	25%	
14. Encourage mutual analysis of the observations after teachers observe each other.	—	—	—	75%	25%
15. Encourage cooperation between teachers.	100%	—	—	—	—
16. Take teachers' proposals into consideration when making decisions.	50%	50%	—	—	—
17. Strive to problem-solve with teachers about students' deficiencies/areas for improvement.	75%	25%	—	—	—
18. Provide teachers with content-related feedback about their instructional practice.	—	—	100%	—	—
19. Evaluate instructional activities with individual teachers.	—	50%	—	50%	—
20. Assign professional responsibilities to teachers based on their qualifications.	—	50%	50%	—	—

Table 1, cont.

Reported Engagement in Instructional Leadership Behaviors*	Very Frequently	Frequently	Occasionally	Rarely	Never
21. Monitor students' academic performance.	50%	25%	25%	—	—
22. Provide teachers with pedagogy-related feedback about their instructional practice.	25%	25%	—	50%	—
23. Inform teachers about the new developments in practice, policy, and research.	25%	25%	25%	25%	—
24. Encourage teachers to discuss educational problems, share and exchange information and experiences.	100%	—	—	—	—
25. Provide required support for the adaptation of the teachers who have just started the profession or who are new to your school.	50%	25%	25%	—	—

| Satisfaction with Preparation for Teacher Supervision and Evaluation	Very Satisfied	Somewhat Satisfied	Neutral	Somewhat Dissatisfied	Very Dissatisfied
26. How satisfied are you with the training you received in supervising and evaluating teachers from your principal preparation program?	—	25%	50%	25%	—
27. How satisfied are you with the training you received in supervising and evaluating teachers that was provided to you by your district?	—	25%	25%	50%	—

Table 1, cont.

Perceptions of Teacher Supervision & Evaluation Knowledge	Outstanding	Fairly Good	Needs Some Work	Needs a lot of Work
28. How would you judge your knowledge of those teaching behaviors most associated with student progress on standardized tests?	—	—	100%	—
29. How would you judge your knowledge of how to conduct formal classroom observations?	25%	—	75%	—
30. How would you judge your knowledge of how to conduct informal classroom observations (also known as walkthroughs)?	—	25%	75%	—
31. How would you judge your ability to provide helpful feedback to a low-performing teacher?	25%	—	75%	—
32. How would you judge your ability to provide helpful feedback to a high-performing teacher?	25%	25%	50%	—

Table 2. Content of post-observation conferences ($N = 11$)

HIPSS Characteristic	Absent	Occasional	Often
Appropriate Expectations	45% (5)	27% (3)	27% (3)
Supportive Classroom	27% (3)	36% (4)	36% (4)
Effective Use of Time	18% (2)	45% (5)	27% (3)
Opportunity to Learn	27% (3)	27% (3)	45% (5)
Intellectual Push	55% (6)	45% (5)	0% (0)
Coherent Curriculum	82% (9)	18% (2)	0% (0)
Active Teaching	45% (5)	45% (5)	9% (1)
Balanced Procedural	91% (10)	9% (1)	0% (0)
Proactive Management	36% (4)	55% (6)	9% (1)
Teacher Clarity	36% (4)	45% (5)	18% (2)
Teacher Enthusiasm	45% (5)	45% (5)	9% (1)
Instruction Curriculum	27% (3)	55% (6)	18% (2)
Teaching to Mastery	55% (6)	27% (3)	18% (2)
Review & Feedback	64% (7)	18% (2)	18% (2)
Adequate Subject Matter	55% (6)	45% (5)	0% (0)

Figure 1. Content of feedback in principals' post-observation conferences (N = 11) with teachers (N = 11) x HIPSS characteristics
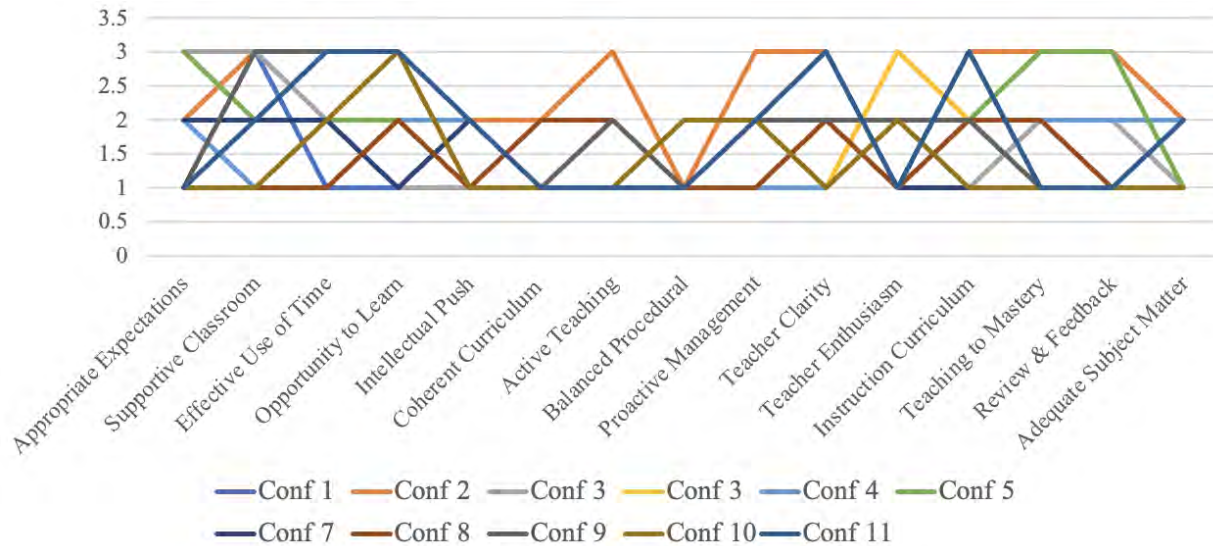
RQ3. What is the quality of the feedback that principals provide to teachers in post-observation conferences?

The goal of the third research question was to assess the quality of feedback principals who participated in this study provided to eleven teachers in their eleven POCs. On a scale with possible total scores ranging from 7 – 40, total FASS scores ranged from a low of 20 to a high of 36 (M = 26.27, SD = 6.00). Across eleven POCs with eleven different teachers, the highest rated aspect of the feedback session was: delivers information that is not contested (M = 4.91, SD = .30). Since the research team did not engage in the observation cycle with the principal, it was impossible to determine the accuracy of feedback thus, teachers' limited disagreement with the presented feedback served as a proxy for accuracy of feedback, albeit somewhat faulty. However, these data are supported by teachers' report of feedback accuracy (see Table 3). Encourages dialogue related to teaching and learning and focuses on individual growth were the second highest rated, on average, aspects of feedback quality (M = 3.27, SD = 1.01, for both variables), while promotes improvement was rated the lowest (M = 2.72, SD = .90).

Table 3. Quality of post-observation conferences ($N = 11$)

FASS Characteristic	M	SD	Mode
Clarifies performance expectations	3.00	1.10	3.00
Facilitates self-reflection	3.00	.89	3.00
Delivers information that is not contested	4.90	.30	5.00
Promotes improvement	2.72	.90	2.00
Focuses feedback on individual growth	3.27	1.01	3.00
Provides clear information	3.18	1.08	3.00
Establishes a balanced account of performance	3.00	.77	3.00
Encourages dialogue related to teaching and learning	3.27	1.01	4.00
Total	26.72	6.00	21, 27

See Figure 2 for a visual of POC x FASS characteristics as an illustration of variance across POCs. Figure 2 illustrates that quality varied, with teachers receiving distinctly different experiences on the extent to which the POC: promoted individual growth, clarified performance expectations, and encouraged dialogue on teaching and learning.

Figure 2. Quality of feedback in principals' post-observation conferences ($N = 11$) with teachers ($N = 11$) x FASS characteristics
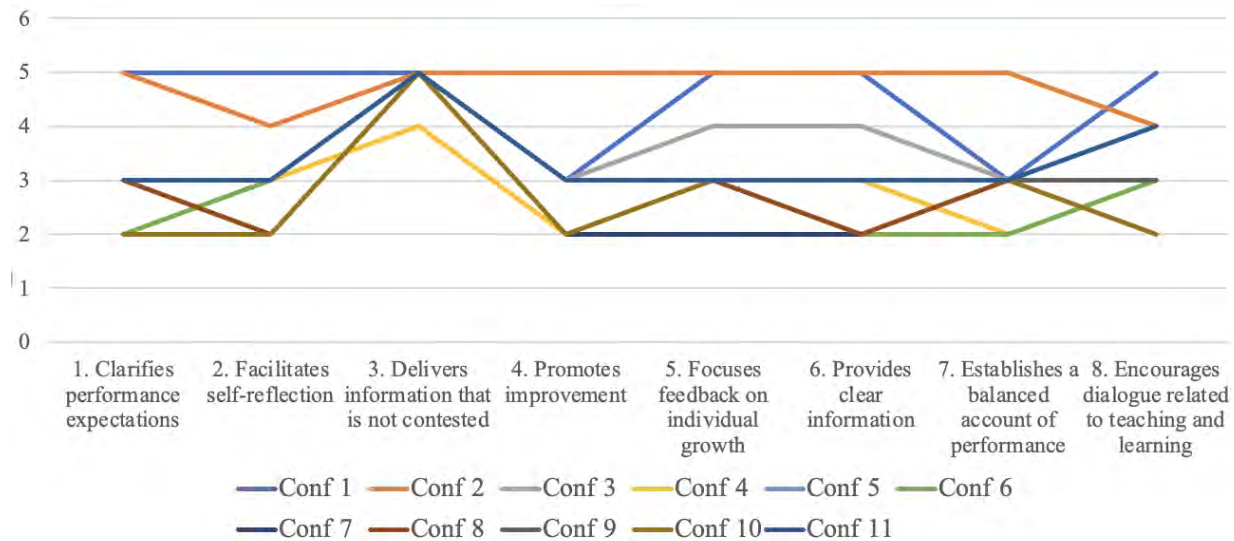
RQ4. What are teachers' perceptions of the quality of feedback that principals provide?

Despite sometimes wide differences in the content of feedback on some instructional practice indicators and feedback quality metrics, all teachers were relatively pleased with the feedback they received, particularly: its timeliness (82% indicated timeliness was 'very good'), the extent to which it facilitated self-reflection (82% strongly agreed that the feedback achieved this), and its trustworthiness (91% strongly agreed that the feedback received was trustworthy). All teachers indicated that they were likely (36%) or very likely (64%) to modify their instructional practice based on the feedback they received from their principal. See Table 4.

Table 4. Teachers' perceptions of the quality of post-observation conferences

How would you rate:	Very Good	Good	Adequate	Poor	Very Poor
1. The overall quality of feedback you received in the post-observation conference?	64%	36%	___	___	___
2. The timeliness of feedback you received in the post-observation conference?	82%	18%	___	___	___

The feedback I received in the post-observation conference:	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
3. Clarified performance expectations	64%	36%	___	___	___
4. Facilitated self-reflection	82%	18%	___	___	___
5. Was accurate	82%	18%	___	___	___
6. Promotes my improvement.	64%	36%	___	___	___
7. Was clear	73%	27%	___	___	___
8. Was trustworthy	91%	9%	___	___	___
9. Encouraged dialogue between myself and my principal about teaching and learning	82%	18%	___	___	___

Table 4. Teachers' perceptions of the quality of post-observation conferences (cont.)

The feedback I received in the post-observation conference:	Very Likely	Likely	Neutral	Unlikely	Very Unlikely
10. How likely are you to use the feedback you received in the post-observation conference to modify your instructional practice?	64%	36%	___	___	___

RQ4a. What are teachers' perceptions of the most and least useful aspects of the feedback they received in post-observation conferences?

Teachers' eleven responses to the most helpful aspects of feedback were thematically coded, allowing for double coding, with twenty-three coded instances. Specific feedback that includes areas of improvement were the most frequently identified aspects of useful feedback, noted in 22% and 26% of the coded instances, respectively. For teachers, this included concrete examples from their lesson in POCs (some principals had a minute-by-minute rolling record of the lesson) and how to modify those instructional practices in a subsequent lesson (e.g., be sure students are carrying the weight of most of the 'learning' during instruction). Teachers also indicated that feedback is useful when it: identifies strengths (13%), is clear (13%), provides a balanced account of areas of improvements and things done well (9%), is timely (9%), and is focused on a limited number of areas of improvement (9%). Teachers noted that timely feedback "allows me to put it back into my classroom fast" and that focusing on only a few areas of improvement makes improvement efforts "reasonable".

Teachers' nine open-ended responses to the least helpful aspects of feedback were thematically coded allowing for double coding. Of the nine coded instances, the most frequently noted aspect of unhelpful feedback was insufficient data (33%). Teachers noted that feedback is often based on just one observation, with historical, but not up-to-date data, or with limited understanding of the context (e.g., one teacher noted that a suggestion to have more students come to board was made without the knowledge that few students in this teacher's class are willing to do so). Teachers also noted that feedback is not helpful when it is misaligned (22%). Misalignment included teachers' noting a mismatch between the measure for observation and what was being observed, such as a principal using a new instrument or standards that did not apply to the lesson being observed. While only mentioned once, the other characteristics of ineffective feedback that teachers noted were: in(actionable)(raising concerns without addressing possible solutions), purpose conflation (mixing evaluation with supervision goals in a single POC), insufficient length (quick POCs), and a lack of tailoring to teachers' concerns (what was observed did not provide any data on the teacher's current concern of off-task behavior).

RQ5. What are principals' perceptions of the least and most challenging aspects of providing feedback to teachers?

Our four participating principals provided nine codable responses to the easiest (least) challenging aspect of providing feedback to teachers. In two of those nine instances (22%), principals indicated that no part of providing feedback to teachers is easy. For the remaining aspects, principals listed the following: collaboration with teachers, noting teachers' strengths, observation, building rapport, focusing on improvement efforts, and providing feedback to the most experienced and skilled teachers was easier.

For the difficult aspects of providing feedback to teachers, principals tended to focus on a few salient barriers. The four principals provided thirteen thematically coded instances, with the most frequently noted challenge of feedback being insufficient time (46%). This includes not having enough time to complete all the required paperwork and documentation, and visiting with nearly 35 teachers while managing a school at large (and processing those visits/observations adequately). Other difficult aspects of providing feedback noted by principals included: providing accurate feedback, maintaining professional boundaries and relationships, purpose conflation (which affirms the intertwined nature of supervision and evaluation noted by others), focus (how to observe all the standards or which ones to focus on), insufficient data for feedback, and providing differentiated feedback for highly skilled teachers (all mentioned once).

Discussion

The study's goal was to examine the content and quality of principal's verbal feedback to teachers in POCs and teachers' perceptions of that feedback. While the study design and sample size limits generalizability and the ability to make any causal or correlational conclusions, it does provide two ways to understand, measure, and perhaps improve POCs. We comment on three important study findings below.

Study findings illuminated that principals in this study do not address all fifteen high-impact instructional practices equally in their POCs (as measured by the HIPSS). Instead, opportunity to learn and supportive classroom environment gets more airtime, while the coherence of the curriculum sequencing, the balance of procedural and conceptual knowledge, and the teachers' use of review and feedback are rarely addressed. Given the extensive research on pace and cognitive challenge as well as creating a sense of belonging and classroom community (Author et al., 2019d), it is not surprising that school leaders may emphasize these elements in the feedback they provide to teachers. However, we were surprised that review and feedback did not acquire more time in POCs for that very reason (see Hattie & Timperley, 2007, for the power of feedback). However, we know very little about why certain aspects of instruction were discussed, while others were not, and why there may be variation from POC to POC (and, in this case, teacher to teacher). For example, is it possible that some instructional practices were absent from POCs because teachers (or a particular teacher) had already mastered that skill? Finally, it is also possible that there is a mission or initiative that the school is currently working on that aligns with certain instructional elements.

A second important finding is that contrary to research that suggests that principals struggle to do these tasks well (e.g., Kraft & Gilmour, 2016) due to various barriers or lack of training and that teachers oftentimes do not find feedback useful (Cherasaro et al., 2016), in this group of participants, the quality of the POCs was rated as average or above average by the research team using the FASS and was rated as even higher in quality by teachers. It is unclear if the observed POCs were a function of the Hawthorne Effect in that just the act of knowing the POC was being recorded, principals may have altered the quality of the feedback that they provided to teachers. Nevertheless, findings suggest that high-quality POCs can occur and, subsequently, that teachers can find them useful.

While a high-quality POC, as measured by the FASS, may be a "better" POC, we cannot determine in this study if this is related to a greater likelihood of making changes to instructional practice, in part, because of our small sample size, but also because of limited variation in teachers' perceptions—almost all teachers were pleased with the feedback they received and all were likely to change their practice. It was important to note, however, that all teachers felt the feedback they received was trustworthy, which may have, in part fostered relatively high intention to implement feedback, as noted by others (Ebmeier, 2003).

A final key finding is that teachers in this study provided markers of effective and ineffective feedback in the surveys they completed which may help school leaders make the best use of the limited time they do have with teachers in POCs (see RQ4a). According to participants in this study, "good" feedback is concrete and actionable. It highlights what teachers did well, and suggestions focus on a few areas because that increases teachers' focus on their improvement efforts (and perhaps their chance of success in doing so). Finally, good feedback is timely. While content-based feedback did not appear in this list, perhaps because teachers have rarely experienced it (Nelson, 2010; Stein & Nelson, 2003), many of these elements of effective feedback affirm existing research (Lavigne & Derrington, 2023). Based on teachers' responses, principals might seek to improve their POCs by finding ways to gather more data on teachers' practices to inform feedback conversations and work to understand teachers' perspectives so that feedback reasonably reflects the classroom context, learners, and teachers' readiness to implement feedback and their concerns. Perhaps including some reflection questions at the end of a POC may help principals and teachers address contextual and content concerns together (e.g., What barriers do you anticipate in trying to implement this feedback into classroom practice?).

Implications and Conclusion

While study findings do not generalize to the quality and content of post-observation practices at large, study findings can impact practice and principal preparation. For example, just merely measuring the content and examining the quality of POCs (the HIPSS and FASS are just two possible instruments) may be a useful exercise for practicing and future school principals. In reviewing POC data, practicing and future school principals might reflect on the following: What aspects of instruction did you address in the POC? What aspects of instruction were absent in the POC? What are the implications of what you discussed for improving teaching and learning? What would you rate the quality of the POC? What evidence supports your rating? Likewise, information on ineffective and effective characteristics of feedback, provided in this study,

provide another way for school leaders to reflect on their effectiveness in this area and identify areas for growth that are driven by data that includes feedback from teachers on POCs.

This study provides a first "dipping the toe in the water" of possible ways to measure and make sense of POCs and for that reason offers numerous avenues for future research. Using the same instruments utilized in this study, subsequent studies on a large scale are warranted. This would allow researchers to examine if and how principals' supervisory behaviors vary depending on context, specifically the linguistic diversity of their student population (Azovide & Bouchamma, 2021), as manifested in POCs. A large sample size would also allow researchers to examine if school leaders intentionally or unintentionally vary their post-observation practices by teacher. For example, do school leaders enact qualitatively different POCs with novice and veteran teachers? While theoretical bridging was beyond the scope of the current study, in a subsequent study one might consider developmental approaches to supervision by applying Drago-Severson and Blum-DeStefano's (2016) ways of knowing to understand how teachers and principals experience, enact, engage in, and reflect upon POCs. Alternatively, one could apply Glickman et al.'s (2018) supervisory behavior continuum to measure various conference behaviors (e.g., listening, reinforcing) or classify conferences by type (e.g., non-directive, directive control) as a secondary analysis of the recordings from this study or in a subsequent study. In combination with teachers' years of experience, such studies would help tease out the role of developmental approaches to supervision and strengthen our understandings of the bridge between research, theory, and practice.

In this study we chose to utilize an instrument that focused on fifteen high-impact practices, practices that do not include effective practices like asset-based pedagogy and culturally responsive and sustaining pedagogy. However, we, like others, believe that additional instruments that measure culturally responsive IL practices and the presence of asset-based pedagogy and equity in POCs is the next critical step to extend this line of research to help school leaders reflect upon and advance their commitments to social justice and supervising for equity (Graver & Maloney, 2019; Mette et al., 2023; Yeigh, 2023).

Our research design choices included prioritizing verbal feedback. However, there may be additional value when examining all forms of feedback that teachers receive on their instructional practice. For example, combining the work here with the study design elements of Hunter and Springer's (2022) research on written feedback could illuminate what feedback forms teachers prefer and how different forms of feedback impact the likelihood of and actual change in teachers' instructional practice.

Finally, we, like others, recognize that school leaders cannot possess knowledge, and the same level of knowledge, of all grade levels and content areas. Honoring the current state of practice where school leaders offer the bulk of feedback to teachers about their instructional practice, Stein and Nelson (2003) argue that school leaders should have expertise in at least one subject and that they establish expertise in other subject areas by "postholing" or taking a deep-dive exploration of a topic within that subject area. In a future study that examines feedback in POCs, it would be fruitful to understand if and to what extent school leaders do this (see Quebec Fuentes & Jimerson, 2020, for a notable example) and how it impacts their ability to observe and provide feedback that is pedagogically relevant to the subject matter. While a sound

understanding of effective instructional practices is critical, school leaders can enhance their ability to improve instruction when they develop LCK to make more nuanced and contextualized sense of what they observe in classrooms (Quebec Fuentes & Jimerson, 2020, 2019). Additionally, we wonder how future research can illuminate how principals leverage subject-area experts like instructional coaches and specialists to fill in content-area knowledge gaps and provide a more team-based feedback approach to teachers about their instructional practice.

This study, even with its limitations, provides a foundation for establishing a better understanding of the what, how, and why behind a particular IL practice being used to improve teaching and learning—observation and feedback. As one of the first, and perhaps the only study that has collected audio data of actual POCs, these findings underscore the value of listening to and learning from POCs. Larger scale studies that collect data at this grain-size level with different lenses (e.g., content-based feedback, supervision for equity), that include teacher factors (e.g., self efficacy, perceptions of supervisor, available supports) and importantly, that include outcomes such as changes to instructional practice and student learning will extend theoretical and research-based understandings of how observation and feedback can enhance teaching and learning.

Appendix A

High Impact Practices Scoring System (HIPSS)

HIPSS Component	Rating Scale			Notes	Score
Principals indicate that teachers should…	Absent 1	Occasional 2	Often 3		
Appropriate expectations *Provide all students with an appropriately demanding curriculum*	There are no references to the expectations the teacher holds for students and how those expectations are communicated.	There are few or some references to the expectations the teacher holds for students and how those expectations are communicated.	There are frequent references to the expectations the teacher holds for students and how those expectations are communicated.		1.
Supportive Classroom *Encourage and support students at all times, socially, emotionally, and academically; teachers create a sense of "we-ness"*	There are no references to the teacher's supportive classroom environment and or climate.	There are few or some references to the teacher's supportive classroom environments or climate.	There are frequent references to the teacher's supportive classroom environments or climate.		2.
Effective Use of Time *Start and end class promptly, limit transitions, and maximize learning time*	There are no references to the teacher's use of instructional time.	There are few or some references to the teacher's use of instructional time.	There are frequent references to the teacher's use of instructional time.		3.

Opportunity to Learn *Provide all students with opportunities to learn that are at an appropriate pace and that challenge all students cognitively.*	There no references to how the teacher uses pace and challenge to provide all students with equal opportunities to learn.	There are few or some references to how the teacher uses pace and challenge to provide all students with equal opportunities to learn.	There are frequent references to how the teacher uses pace and challenge to provide all students with equal opportunities to learn.		4.
Intellectual Push *Encourage students to think, learn from mistakes, and strive to improve*	There are no references to how the teacher communicates of expectations of academic rigor	There are few or some references to how the teacher communicates expectations of academic rigor	There are frequent references to how the teacher communicates expectations of academic rigor		5.
Coherent Curriculum in Sequence *Organize and present content in a logically sequenced manner.*	There are no references to how the teacher orders and sequences content.	There are few or some references to how the teacher orders and sequences content.	There are frequent references to how the teacher orders and sequences content.		6.
Active Teaching *Actively present concepts by engaging in and supervising students' work; teacher provides students with opportunities to build upon initial concepts/explanations.*	There are no references to how the teacher engages in, monitors, and extends students' learning	There are few or some references to how the teacher engages in, monitors, and extends students' learning	There are frequent references to how the teacher engages in, monitors, and extends students' learning		7.

Balanced Procedural and Conceptual Knowledge *Provide students with opportunities to understand and apply concepts.*	There are no references to how the teacher balances students' conceptual knowledge and ability to transfer that knowledge to practice/application.	There are few or some references to how the teacher balances students' conceptual knowledge and ability to transfer that knowledge to practice/application.	There are frequent references to how the teacher balances students' conceptual knowledge and ability to transfer that knowledge to practice/application.		8.
Proactive Management *Establish classroom expectations, procedures, and practices so that students know what to do, how to do it, what to do when confused, and what to do when they are done.*	There no references to how the teacher establishes proactive management strategies to prevent classroom management issues.	There are few or some references to how the teacher establishes proactive management strategies to prevent classroom management issues.	There are frequent references to how the teacher establishes proactive management strategies to prevent classroom management issues.		9.
Teacher Clarity *Focuses the lesson on the objective.*	There are no references to how the teacher aligns the lesson and objective.	There are few or some references to how the teacher aligns the lesson and objective.	There are frequent references to how the teacher aligns the lesson and objective.		10.
Teacher Enthusiasm and Warmth *Express care for students and the content.*	There are no references to how the teacher expresses enthusiasm towards students (as a class and individuals) and towards the content	There are few or some references to how the teacher expresses enthusiasm towards students (as a class and individuals) and towards the content	There are frequent references to how the teacher expresses enthusiasm towards students (as a class and individuals) and towards the content.		11.

Instruction Curriculum Pace *Move through the curriculum at an appropriate pace so that students are not bored or rushed.*	There are no references to the teacher's pacing.	There are few or some references to the teacher's pacing.	There are frequent references to the teacher's pacing.		12.
Teaching to Mastery *Provide students with opportunities to learn and understand all the material.*	There are no references to how the teacher supports students' understanding of the material/lesson.	There are few or some references to how the teacher supports students' understanding of the material/lesson.	There are frequent references to how the teacher supports students' understanding of the material/lesson.		13.
Review and Feedback *Provides students with opportunities to review, to receive timely, frequent, and rich feedback, and opportunities to improve their work in the future*	There are no references to how the teacher provides students with opportunities to review, receive feedback, and act on that feedback and review (opportunities to improve, try again).	There are few or some references to how the teacher provides students with opportunities to review, receive feedback, and act on that feedback and review (opportunities to improve, try again).	There are frequent references to how the teacher provides students with opportunities to review, receive feedback, and act on that feedback and review (opportunities to improve, try again).		14.
Adequate Subject-Matter Knowledge *Present students with accurate and adequate subject matter knowledge.*	There no references to the teacher's subject matter content (accuracy, scope, adequacy).	There are few or some references to the teacher's subject matter content (accuracy, scope, adequacy).	There are frequent references to the teacher's subject matter content (accuracy, scope, adequacy).		15.
		Total HIPSS Score (add #1-#15):			

Appendix B

The Feedback Assessment Scoring System [FASS]

FASS Component	Rating Scale					Notes	Score
	Highly Ineffective 1	Ineffective 2	Average 3	Effective 4	Highly Effective 5		
Clarifies performance expectations *Captures the extent to which feedback provides greater clarity of performance expectations.*	There are no detailed and explicit references to expectations for teacher performance in relationship to the observed lesson		There are some clear, detailed, and explicit references to expectations for teacher performance in relationship to the observed lesson		There are frequent, clear, detailed, and explicit references to expectations for teacher performance in relationship to the observed lesson		1.
Facilitates self-reflection *Captures the extent to which feedback facilitates teachers' reflection on their instructional practice.*	There are no opportunities for the teacher to reflect on the observed instruction and feedback		There are some opportunities for the teacher to reflect on the observed instruction and feedback		There are frequent opportunities for the teacher to reflect on the observed instruction and feedback		2.
Delivers information that is not contested *Captures the extent to which teachers disagree with principals' perception of what was observed during the lesson.*	Feedback and review of the observed instruction is frequently contested and/or clarified by the teacher		Feedback and review of the observed instruction is sometimes contested and/or clarified by the teacher		Feedback and review of the observed instruction is not contested and/or clarified by the teacher		3.
Promotes improvement *Captures the extent to which feedback supports teachers in making improvements to their instructional practice.*	There are no suggestions for task improvement that are coupled with indications that the teacher can improve and/or specific reference to supports that will support the teacher's improvement		There are some suggestions for task improvement that are coupled with indications that the teacher can improve and/or specific reference to supports that will support the teacher's improvement		There are frequent suggestions for task improvement that are coupled with indications that the teacher can improve and/or reference to specific supports that will support the teacher's improvement		4.

Focuses feedback on individual growth *Captures the extent to which the feedback addresses self- improvement and growth.*	There are no references to the teacher's individual growth and development (past or future)		There are some references to the teacher's individual growth and development (past or future)		There are frequent references to the teacher's individual growth and development (past or future)	5.
Provides clear information *Captures the quality of information delivery and the extent to which the information is comprehensible to the teacher.*	Feedback is not specific, supported with concrete examples, presented in a logical manner, or avoids assumptions		Feedback is sometimes specific, supported with concrete examples, presented in a logical manner, and avoids assumptions		Feedback is frequently specific, supported with concrete examples, presented in a logical manner, and avoids assumptions	6.
Establishes a balanced account of performance *Captures the extent to which a teacher's strengths and areas of improvement are both provided and given equal attention during the conference.*	Feedback does not provide an equal balance between areas of strengths and areas in need of improvement.		Feedback sometimes provides an equal balance between areas of strengths and areas in need of improvement.		Feedback frequently provides an equal balance between areas of strength and areas in need of improvement.	7.
Encourages dialogue related to teaching and learning *Captures the extent to which the conference includes discussion and dialogue about the relationship between teaching practices and student outcomes (and vice versa).*	No back-and-forth exchanges occur about the relationship between teaching practices and learning outcomes		Some back-and-forth exchanges occur about the relationship between teaching practices and learning outcomes		Frequent back-and-forth exchanges occur about the relationship between teaching practices and learning outcomes	8.
					Total FASS score (add #1-8): ____	

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