IPRPD
International Journal of Arts, Humanities and Social Sciences
ISSN 2693-2547 (Print), 2693-2555 (Online)
Volume 06; Issue no 09: September 2025
DOI: 10.56734/ijahss.v6n9a9

THE IMPACT OF AN INTERNAL COHERENCE PROFESSIONAL LEARNING SERIES ON THE LEARNING AND DEVELOPMENT OF AN INSTRUCTIONAL COACHING TEAM

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Abstract

As an improvement strategy in a high-poverty rural school district, an instructional coaching initiative was established to support instructional improvement. Skilled classroom teachers were identified to serve as literacy and math coaches, collaborating as a team and with district and building leaders. Researchers led the team of four newly appointed coaches in an extended learning series focused on principles of the Internal Coherence Framework (Forman et al., 2017). Opportunities for shared learning and collaboration with two building leaders and two district administrators were included in the learning series. Internal Coherence is defined by the authors as the "collective capability of the adults in a school…to connect and align resources to carry out an improvement strategy" (pp. 2-3). The IC framework is designed to increase efficacy for instructional leadership, collective teacher efficacy for high impact instructional practices, and increased student achievement and agency (Forman et al., 2017; Goddard et. al., 2020; Bandura, 1997). Researchers subsequently engaged in qualitative research to understand the meaning participants constructed from the experience. The researchers utilized design-based-implementation research as tools and instrument development were a primary focus of the project. In addition, phenomenological research methodology was applied to investigate participants' lived experiences and sense-making of components of the learning series. One particularly salient outcome of the learning series was the enduring nature of a particular clinical tool developed as a part of the project. The sustained use of the tool outlining the district's instructional vision in terms of the instructional core (Cohen & Ball, 1999) suggests the substantial impact the learning series had on individual and potentially collective efficacy of district and school instructional personnel. Implications for these findings provide evidence for the effectiveness of engaging in team's shared learning and collaborative development of research-based clinical tools based on the IC framework (Forman et al., 2017). The paper discusses the project focus and implications for the usefulness of the Internal Coherence framework as a guide for continuous improvement, shared learning, and collective efficacy.

Keywords

School Improvement, Collective Efficacy, Internal Coherence, Shared Learning, Instructional Improvement, Collaboration

Introduction

This paper is a portion of a larger research study that took place in a small rural school district in the southern region of the United States. The research project focused on the impact of training provided to support to a newly assigned instructional coaching team established as a part of the district's improvement strategy. The school district of less than 1000 students was historically challenged with high turnover for teachers and administration and low student performance. Research confirms leadership and teacher turnover hinder the development of cultures of excellence and ultimately harm students (Carver-Thomas & Darling-Hammond, 2017), therefore, in efforts to address district challenges, the newly appointed superintendent established an instructional coaching team to provide support to teachers for improvement in content knowledge and pedagogical skill. It was especially important to the superintendent to select highly skilled teachers from within the district to serve as instructional coaches thereby

increasing the district's internal capacity for sustainable improvement. The team of four coaches was established to provide support primarily in English language arts and mathematics classrooms at the elementary and middle/high school levels.

The superintendent partnered with research consultants associated with a university in the district's region to provide ongoing learning sessions with the coaches using the structure of the Internal Coherence (IC) framework (Forman et al., 2017) to guide the process. The learning series consisted of bi-weekly learning sessions with the newly assigned instructional coaches. The learning sessions were collaborative and were followed by interim practice components aligned with the participants' level of foundational knowledge and skill. The practice assignments allowed coaches to try out what they were learning. Discussions and content in subsequent learning sessions provided opportunities to extend, correct, or clarify knowledge and skills based on the coaches' practice experiences.

Participants names are anonymized to protect confidentiality. Identifying detail regarding the schools and district has been generalized to protect confidentiality and the integrity of the research project.

Internal Coherence Framework

Internal Coherence (IC) is defined as the "collective capability of the adults in a school building or an educational system to connect and align resources to carry out an improvement strategy" (Forman et al., 2017, pp. 2-3). The IC framework is designed to increase efficacy for instructional leadership, collective teacher efficacy for high impact instructional practices, and increased student achievement and agency (Forman et al., 2017). The framework includes direction for leadership practices in establishing and managing structures necessary for a culture of shared learning and instructional improvement, organizational structures for establishing time and procedures for ongoing collaboration, key areas of focus to develop teacher collective efficacy for substantive instructional practices, and a relentless focus on understanding the impact of teaching choices to student achievement. At the center of the model lies the concentration on increasing collective efficacy. (Forman et al, 2017)

The IC framework centers on four guiding principles: (1) Coherence is built around the instructional core; (2) Improvement is a challenge of learning, not implementation; (3) Mastery experiences change belief and behavior; (4) Clinical practices and tools make research actionable (Forman et al., 2017, p. 7). The learning series with the team of instructional coaches engaged the team in shared learning around these four guiding principles and the structure and components of the IC framework.

The first principle, coherence is built around the instructional core, centers on the work of Cohen and Ball (1999). When discussing the three components of instruction which include teachers, students, and content/resources, the authors state, "Instructional capacity – the capacity to produce worthwhile and substantial learning – is a function of the interaction among these elements, not the sole province of any single one, such as teachers' knowledge and skill or curriculum" (p. 3). The IC framework includes a focus on expanding teachers' knowledge and skill of instructional practices as the component for developing collective efficacy. To ensure efficacy is well grounded in research, the instructional core (Cohen & Ball, 1999) component is key.

The second principle, improvement is a challenge of learning, is focused on the learning of leaders and teachers to grow their collective efficacy and shared knowledge and skill. The framework focuses on shared adult learning to develop collective efficacy around the components of the instructional core as a means of preparing adults to meet the learning needs of students. In the framework, teachers and leaders learn together to understand the connection between teaching and student learning.

The third principle, mastery experiences change belief and behavior, focuses on designing experiences in which teachers can practice new skills or observe colleagues teaching, and analyze and discuss the impact to student learning. When teachers examine and realize the extent of the successful impact of their teaching choices, they are more likely to repeat the event and become more confident in their capacity as they do so (Forman et al., 2017; Bandura, 1997).

The final principle, clinical practices and tools make research actionable, is a primary focus of this paper. Authors explain the principle stating, "Clinical practices and tools allow educators to apply research-based understandings in their unique school contexts" (Forman et al., 2017, p. 15). In the IC learning series, the instructional coaches collaboratively designed a clinical tool based on the vision for the instructional core. The tool, grounded in the instructional core research, was intended to guide their support of teachers and anchor the work of district teachers and leaders for instructional improvement.

Learning Series Overview

The district instructional coaching team was the primary audience for the IC learning series. Additionally, principal and district leadership were included in intermittent phases of the learning series to expand shared learning and establish collaborative working relationships as the work of various teams intersected. The goal of the project was to eventually engage all instructional leadership in the initiative; however, this particular segment of training was focused on the coaches as the superintendent desired them to have the most frequent and direct interaction with teachers and potentially the greatest impact on classroom practices.

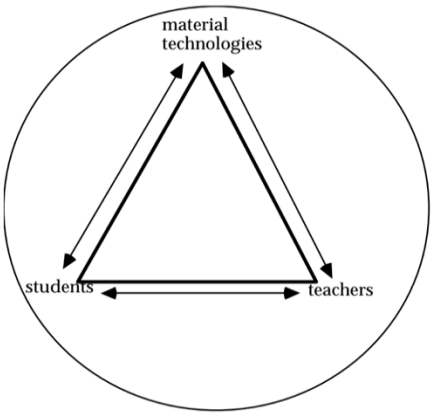
The learning series began with a focus on the role of the coaches and development of a shared vision of instructional practices. The first phase became critically important as this was the first experience of the team members as coaches and as a collaborative team. The group had to not only learn more about the role of coaching but also learn how to function as a unit with common goals, beliefs about instructional practice, and processes for working together as well as with the principals and teachers. The learning series was an enactment of the second guiding principle of the IC framework – *Improvement is a challenge of learning, not implementation* (Forman et al., 2017, p. 7).

To develop an instructional vision, the team first needed to clarify their individual views of quality instruction and then reach consensus on what good instruction looks like, sounds like, and feels like in classrooms. This agreement was crucial for the team to function as a unit and for the district to begin to work toward coherent common expectations. Agreement took some time as the team had broad experiences and varying teaching styles.

To help the team coalesce around shared notions of effective instruction, researchers taught extensively on the theory of the instructional core and its components (Cohen & Ball, 1999) as an enactment of the first IC guiding principle – *Coherence is built around the instructional core* (Forman et al., 2017, p. 7). Researchers led the coaches through a variety of learning experiences including challenging them to articulate what each considered quality instruction, explore deeply the concept of the instructional core, and analyze classroom scenarios for the core. Figure 1 illustrates the instructional core theory of practice defined by the authors in this way – "We focus on the *interactions of teachers and students around educational material,* rather than seeing curriculum alone or teachers alone or as the main source of instruction. On this view each of the three elements is essential, but instruction requires all three" (Cohen & Ball, 1999, p. 2).

The series of sessions with coaches focused on understanding the concepts of the instructional core extended over several months. The process ultimately resulted in the development of a shared document that coaches presented to school and district leaders for input. In turn, the school leaders took the draft document to teacher teams for input. What resulted was a district-wide clinical tool which became known as The Principles of Quality Education (PQE). The tool is an example of the fourth IC guiding principle – *Clinical practices and tools make research actionable* (Forman et al., 2017, p. 7).

Figure 1 Instructional Core



Note: The figure is a visual representation of the instructional core (Cohen & Ball, 1999)

The PQE document outlined a district vision for instruction which included detail organized by the components of the instructional core. It included descriptors of what would be seen in classrooms if the vision were to be realized – what teachers would be doing, what students would be doing, and what thinking and products the chosen content and resources would elicit – all three components of the instructional core (Forman et al., 2017; Cohen & Ball, 1999). Coaches deepened their understanding of the academic task (Doyle, 1983) as a function of the interaction of the three components of the instructional core.

This new knowledge guided coaches in aligning their individual and shared understanding of evidence-based instructional practices. In the process, the team developed a shared vision and articulated the vision in terms of what they would see in classrooms with the vision fully realized. The calibration and shared work resulted in the clinical tool the team labeled as the PQE document. The document content and purpose are described further in the findings and discussion sections of this paper.

One key finding of the research and focus of this paper was the identification of the PQE tool as a stable instrument in that the document continued to be used by the instructional coaches, principals, and district leadership after the close of the project. The implication and importance of the development and enduring nature of the PQE tool is discussed further in the findings and discussion sections of this paper.

Theoretical Framework

The learning series and support of instructional coaches in the research project centered on the IC framework as a guiding structure. The IC framework is predicated on social cognitive theory (Bandura, 1997) with a central focus on the processes and structures for developing collective efficacy of instructional leaders and teacher teams. The components of the framework are designed to establish a culture of shared learning in which participants engage in collaborative discussions of learning concepts, shared learning around the components of the IC framework, and development of clinical tools to support the work of practitioners therefore bridging the gap between research and practice (Forman et al., 2017). The learning series is further focused on the development of individual and collective efficacy (Goddard et al., 2020) for high impact instructional practices based on deep understanding of the

concepts of instructional core (Cohen & Ball, 1999) and academic task (Doyle, 1983).

Methodology

A semi-structured, open-ended interview protocol (Seidman, 2019) was used to examine the following research questions addressed in this qualitative design-based implementation research (DBIR) project. The DBIR methodology was appropriate for the project as the learning series included iterations of learning, design of resources, and refining resources as the project progressed (Fishman et al., 2013; Anderson & Shattuck, 2012). While DBIR provided the structure for the project overall, phenomenological research methodology guided researchers to understand the lived experiences of participants throughout the learning series and through development of project tools (Moustakas, 2011). The following research questions guided the inquiry.

1. What, if anything, resonated with project participants about the overarching goals of the Internal Coherence (IC) framework and professional learning series, as they were understood?
2. To what extent, if at all, did aspects of the IC learning series feel useful or applicable to the day-to-day work of project participants in each role group, or were responsive to what they felt most accountable?
3. To what extent, if at all, did the content or ways of working in the IC learning series feel disconnected from or in conflict with the work for which project participants in each role group felt most accountable?

Research participants included the district superintendent, assistant superintendent, four members of the instructional coaching team, and two building-level leaders, all from a single high-poverty, rural district engaged in an Internal Coherence (IC) collaboration spanning the 2020–2021 through the 2022-2023 academic school years. This specific segment of the project – working with instructional coaches – was a focus in the final year of the broader research study. During the interviews, researchers asked participants to reflect on their experiences with the IC learning series, highlighting elements they found valuable, relevant, and applicable to their practice. Researchers also explored aspects that participants found confusing, unnecessary, or that may have hindered progress.

Interviews with instructional coaches focused on their experience with the learning series and subsequent support in schools. Principal interviews focused on their role supporting teachers' work in teams and classrooms. District leadership conversations centered on the support for instructional coaches and building leaders and how knowledge from the IC learning series influenced interactions. To triangulate data collection researchers engaged in document analyses of project materials including presentation slide decks, rolling agendas, meeting notes, and artifacts such as commitments to public learning and instructional vision drafts created by participants over the course of the partnership.

Following the interviews, researchers independently reviewed transcripts of the interviews and documents associated with the project to identify recurring themes and patterns. The coding process was open identifying interviewee comments and insights into impactful learning, most applicable experiences, as well as challenges encountered during the learning series. What researchers identified as key in responding to the research questions was then clustered into common themes and patterns. The two researchers compared their independent coding experiences and collaborated regarding the most salient findings. (Moustakas, 2011)

Findings

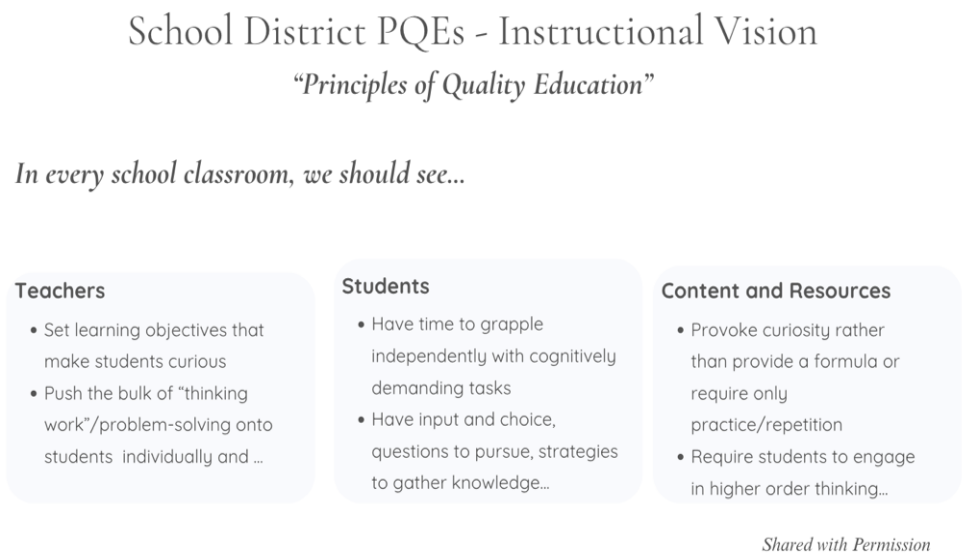
Early in the IC learning series, the instructional coaches struggled to articulate what high-quality instruction looks like – often remarking, “I can’t explain it, but I know it when I see it.” In a learning session, each one completed a chart noting what they focused on in classroom support and how they conducted their individual work. The responses ranged from copying and sharing resources to modeling effective practices. Initially, there was minimal overlap in the four coaches’ practices and description of effective classroom practices. Their responses underscored the need for a shared understanding of evidence-based instructional practices, including how teachers and students interact and how content and resources are utilized to bring the instructional vision to life.

To address the need of a shared understanding of high leverage instructional practices, participants engaged in learning together about the components of the instructional core and applying the core to classroom support. The learning sessions with coaches included ongoing collaboration to develop a guiding document derived from the instructional vision the team developed early in the IC series. Through a process of calibration, discussion, practice, and recalibration, the team articulated what they expected to see when the vision was fully realized – detailing components of the instructional core including teacher actions, student behaviors, and the utilization of content (Cohen & Ball, 1999). The clinical tool resulting from this process became known as the school district’s *Principles of Quality Education* (PQEs).

The PQE tool describing the district’s vision for the instructional core began with the statement of the district vision and then included three sections dividing the vision into the expectation of what students

would be doing, teachers would be doing, and what content resources would be utilized for teacher and student interaction (Cohen & Ball, 1999). Several bulleted descriptions were included on the document for each component of the instructional core. An excerpt of the tool is illustrated in Figure 2.

Figure 2 Principles of Quality Education Excerpt – A Clinical Tool



Note: The figure (an excerpt) was created by authors based on the complete district-designed PQE tool (shared with permission).

A consistent theme across participants' responses during the research event was the sustained influence of the PQE clinical tool on participants' thinking and the "sticky" nature of the instructional core triangle (Figure 1). The instructional coaches as well as school and district leaders, independently of each other, reported that the PQE tool the team developed based on the instructional core triangle was a memorable component of the learning series in translating the district's instructional vision into coherent classroom practice (City et al., 2009).

Interviews with participants revealed each one's recollection of the value of collaboration leading to the design of the tool and the impact of associated learning on their individual depth of knowledge related to the nature of instruction. Evidence of this impact is shared in discussions that follow.

Instructional Coaches' Reflections

As the four instructional coaches were the primary audience for this portion of the learning series, discussion begins with illustrations from interview transcripts regarding their experience and recollection of what they learned and how their new learning applied to their practice.

One instructional coach was asked about the most useful component of the IC learning series and about thoughts on working together with the coaching team to develop the PQE instrument. The response was, "Being a first-year coach, I took all my notes. I've got them right here in front of me, and they gave me a blueprint on how to go about being a better coach because without it, I would have had no road map except to just go in blind and hope something opens my eyes." The instructional coach continued stating, "But now instead of going into it more emotional, now I'm going into it with more objectivity and more direct purpose" (Coach 1, personal communication, August 27, 2024).

Another instructional coach was asked for an example of how the PQE document is informing their work. The coach responded recalling several items on the PQE tool as examples of the student component of the instructional core. The coach stated, "We wanted kids to be curious about what they (were) learning. We wanted them to develop a growth mindset, being able to engage them in those 21st century problem solving skills. And here we are now, our 6th graders…on middle school campus…have a computer class, computer science, and they're talking about inventions and…entrepreneurship ideas. So those 21st century skills, we don't have to wait until they're in high school" (Coach 2, personal communication, August 27, 2024).

As another example of the enduring impact of work around development of the PQE document, the third coach, when asked what was most useful in the IC learning series, stated, "I think all of it. When we come to the PQEs, all of it sticks because…all of it leads to working together. So, everybody had a hand in something." The coach continued by stating, "We knew what we were working towards – quality education for our students – so that was the process. And our process was how are we going to get them there? What's the process to getting our kids

there? As a teacher, what am I supposed to do? As a student, what is my goal? What am I supposed to do? The content…does the content align? That was the whole process" (Coach 3, personal communication, August 30, 2024). Interestingly, the coach demonstrated lasting recall of the components of the Instructional Core in describing the items on the PQE document stating what should be seen in classrooms when observing the interactions of teachers and students around content (Cohen & Ball, 1999).

The final coach on the team recalled when the concept of the instructional core began to have personal meaning and connection. Researchers asked for the coach to share when the content of the learning series began to make sense. The coach responded saying, "When we started, I was a coach, of course, and we did the PQEs…for me, that's when it started making sense…We just needed something that we all say, hey, we're on the same page about this (effective instructional practices) across the board; this is what we need to see everywhere, no matter who you are…So for me, it clicked…once we started…working on those (the PQE descriptors). It made it more relevant…it…became real for me when we actually had those, and I think it was because it was a product" (Coach 4, personal communication, August 30, 2024).

School Leaders' Reflections

One school building leader's recollection of the learning series' impact on personal learning is illustrated in the response given when asked about what resonated most about the learning series. The principal stated, "The biggest takeaway with me, that I can remember the most about, of course, is the triangle – as we all, you know, (we) abbreviated and called it the triangle – the vision for instructional core" (Principal 1, personal communication, August 30, 2024). Principal 1 was active in gathering the instructional leadership team (teachers) to review the draft of the PQE developed by coaches and gather their feedback and input on the instrument thereby engaging her teachers in collaborative evaluation of the tool. While the principal may or may not have understood the value of gathering and empowering the teachers for input at the time (Fullan & Quinn, 2016; Goddard et al., 2015, August), she engaged in the task as part of iterative practice during the IC learning series. It is unknown if the principal realized the value of the task in developing shared understanding and individual and collective efficacy of her team. None-the-less, as we know that, "we learn the work by doing the work" (City et al., 2009), the potential for her to come to understand the consequence of such practices was embedded in the design of the IC learning series project.

The second principal involved in the project recalled the impact the coaches' development of the PQE tool had on her building and teaching staff. The principal explained in the interview that the teachers took the version of the tool developed by coaches and developed their own content-specific versions of a PQE. The principal stated, "…they (the teachers) were making their own PQE and what was important in their subject area. Because…we had them grouped by subjects; electives had one, and English had one…doing that actually made them understand the model a little better (Principal 2, personal communication, August 27, 2024). This evidence shared by the principal is an illustration of how the development of content-specific instruments based on the coaches' PQE document impacted learning of staff from the coaches to school leadership, to teaching faculty.

District Leadership Reflections

Initially, the district superintendent's charge to researcher consultants was to increase collaboration among instructional coaches as a team and between the instructional coaches and building leaders. In addition, the superintendent described the district as historically low performing and focused on test scores and not necessarily on effective instructional practice, therefore, he saw value in the IC learning series based on the focus on collaboration, shared learning, and understanding instruction. The superintendent stated, "I think prior to this, the district had always been kind of driven by how are we going to do on an end-of-course assessment, as opposed to the teaching and learning component and also just the learning of adults" (Superintendent, personal communication, September 13, 2024).

When asked if he was seeing evidence of increased knowledge and skill of his school leaders and coaches regarding the content of the IC learning series, the superintendent reflected on a discussion with one of his district personnel. The director was a participant in the IC learning series as a school leader and had moved into a position of supporting new classroom teachers at the time of the interview. A discussion ensued among school and district leadership regarding one particular teacher's capacity and plan for support. In describing support needed, the director discussed the needs in terms of teacher, students, and content – the components of the instructional core. The superintendent recalled this about the situation, " I would just call it the IC at work…he (the director) met with the principal and district team…he was going in (the classroom) thinking he was going to see this not so good teacher…but he was able to bring a different lens as to why this teacher was (struggling). She knew her stuff; she was really trying to teach…and what he found was that the instruction wasn't the issue. It was we weren't putting the right things in front of them (the students) to perform the task" (Superintendent, personal communication, September 13, 2024). To make sense of the scenario, researchers attach the director's assessment of the classroom situation to seeing the teacher's instructional practices through the lens of the instructional core – seeing the interaction between students and teachers around content (Cohen & Ball, 1999). As a result, the director was able to identify that content was the primary concern.

Likewise, the assistant superintendent was asked about the value of the IC project and creation of the PQE document defining instruction in terms of the instructional core and had this to say, "I think because the coaches were so instrumental in the creation of it (the PQE document), you had automatic buy in" (Assistant superintendent, personal communication, August 27, 2024). The assistant superintendent went on to share a story of how one of the instructional coaches used the information they were learning to coach up a new classroom teacher.

Each of the reflections provide evidence of the IC learning series impact to practices across the district with clear examples of how the PQE tool impacted the work of principals, coaches, and district personnel.

Discussion and Implications

The finding of the sustained use of the PQE clinical tool signals the power of the collaborative work conducted by district team members toward its development. The tool serves as both a process and product to guide district and school teams as they surface challenges, frame learning questions, and identify relevant evidence for improvement. In effect, the PQEs became a mechanism for teams to clarify "what we are working on" and "how we are doing the work together." The PQE tool is an example of one of the four primary IC principles – *Clinical tools make research actionable*. Additionally, the tool demonstrates the impact of the learning series focus on the instructional core as well as the practice of a key IC principle, "improvement is about learning not implementation." (Forman et al., 2017, p. 7)

The IC framework (Forman et al., 2017) exemplifies the application of a social-cognitive theoretical model aimed at supporting school leaders through structured, collaborative learning and practice. Its core objective is to enhance principal efficacy and build collective teacher efficacy as levers for sustained school improvement. Efficacy scholar Roger Goddard and colleagues define principal efficacy for instructional leadership as "the degree to which principals believe themselves capable of organizing the courses of action required to support teachers in improving instruction and student learning" (Goddard et al., 2020, p.5). Additionally, research conducted by Goddard et al. (2015, August) found, "The more robust the sense of collective efficacy characterizing the schools in our sample, the greater their levels of student achievement, even after controlling for school and student background characteristics and prior levels of student achievement" (p. 525).

The framework was designed to support district and school leaders in building sustained instructional improvement through collaborative inquiry, leadership development, and the intentional use of tools that foster organizational learning. Grounded in research on coherence and instructional leadership (Forman et al., 2017; Fullan & Quinn, 2016), the model emphasizes the academic and professional learning of practitioners as the foundation for long-term change.

The sustained recall of the PQE document, despite participants' struggles to define the tool formally, suggests that the collaboratively designed clinical tool effectively operationalizes the core purpose of the IC model: learning how to do our work together more effectively. Making these routines more visible and better defined within the framework will enhance calibration, build shared language, and expand access to meaningful coherence-building work across diverse district contexts.

A key acknowledgement and limitation of the project was the interruption of the pandemic to the learning series delivery and continued turnover of administrators and teachers during the project's life cycle. However, even given the unstable nature of project continuance, participants' recall and continued discussion of the components of the instructional core, as defined by their collaboratively developed PQE instructional vision tool, signal the potential of the IC learning series to have a substantial impact on knowledge, skill, and practices of district and school participants. While this project was a less-than-ideal implementation scenario due to interruptions to school schedules and personnel turnover, the evidence is clear from participant interviews, the project had a lasting impact on participants' understanding of the instructional core and the lens through which they currently view of classroom practices.

Implications for future research include considering ways to deliver the learning series to mitigate unexpected challenges encountered during projects and ways to deepen the knowledge and skills of participants early on in the life of the project; however, clearly the process of developing collaborative tools grounded in the concepts of the instructional core to calibrate and generate coherence across the district is a useful and impactful strategy for systematic and systemic continuous improvement.

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