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Double-loop Learning: A Coaching Protocol for Enhancing Principal Instructional Leadership

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Abstract

Executive coaching has become increasingly commonplace in both the corporate and non-profit sectors as a means of improving professional effectiveness but there is a dearth of empirically-based protocols geared specifically toward the growth needs of school principals. This qualitative case study explores the implementation of a principal coaching protocol using a *theories of practice* framework based on concepts originally articulated by Argyris and Schön (1974) and further explicated by the authors in previous publications. This study examined the extent to which a coaching protocol based on theories of practice enhanced principals' self-perceived capacity for reflection and effective instructional leadership. Findings suggest that principals valued the structure, feedback, and reflective dimensions of the protocol and found their confidence level about an important instructional leadership problem – how to support and assist struggling teachers improve their teaching practice – was greatly enhanced. Implications for further iterations of the coaching protocol, as well as future directions of research on principal professional growth, are discussed.

Keywords: theories of practice, coaching, principals, instructional leadership

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Aprendizaje de Doble Ciclo: Sistema de Formación para la Mejora del Liderazgo Educativo de Directores

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Resumen

El coaching ejecutivo es habitual para mejorar la eficacia profesional en los sectores corporativos y en los que no tienen ánimo de lucro. Sin embargo, hay una falta de base empírica que cubra las necesidades de formación de los directores de los colegios. El análisis de este caso práctico explora la implementación de un sistema de formación para directores basado en las teorías prácticas de conceptos creados y explicados por Argyris y Schön (1974). Este estudio se analiza el grado en que un sistema de formación basado en estos aspectos mejora la percepción de los directores de su capacidad de reflexión y eficacia en el liderazgo educativo. Los resultados, para los directores, sugieren que dentro del sistema se valora la estructura, la retroalimentación y la reflexión. Asimismo revelan cómo su nivel de confianza sobre el liderazgo, a punto de convertirse en un problema importante, ha mejorado ayudando y apoyando a maestros en apuros a perfeccionar su práctica docente. También se discuten las implicaciones para futuras investigaciones del sistema de formación y del crecimiento profesional de los directores.

Palabras claves: teorías prácticas, coaching, directores, liderazgo institucional

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AAn ever-growing body of research literature has established the complex but real impact of school principal behaviors on student outcomes (Hallinger, 2010; Robinson, Lloyd & Rowe, 2008; Wahlstrom, Louis, Leithwood, & Anderson, 2010; Witziers, Bosker, & Kruger, 2003). The consensus of this literature holds that while principal influence on student achievement is real, this influence is indirectly mediated through the principal's impact on school culture and climate. One of the key ways principals shape culture and climate is through their *instructional leadership*, defined as the various strategies principals pursue to support and encourage high-quality teaching practices, which in turn have a direct impact on student outcomes (Blase & Blase, 1999; DeBevoise, 1982; Hallinger, 2010; Houchens, 2008; Houchens & Keedy, 2009; Robinson, Lloyd, & Rowe, 2008).

Improving principal instructional leadership is no small task, however. Pre-service principal training has underemphasized instructional leadership in the past and professional development for practicing principals is often marked by a lack of focus, structure, and follow-through (National Policy Board for Educational Administration, 2002; Peterson, 2002). Various coaching models are emerging as more effective means of professional development for both teachers and principals (Aguilar, Goldwasser, & Tank-Crestetto, 2011; Bloom, Castagna, Moire, & Warren, 2005; Reiss, 2007; Tschannen-Moran & Tschannen-Moran, 2011; Wise & Jacobo, 2010).

These models emphasize a process of reflective dialogue between coach and client. Argyris and Schön (1974) made perhaps one of the most cogent arguments for wedding theory and practice through reflective, collaborative processes that mirror this ideal coaching relationship. According to Argyris and Schön, professional decision-making can be enhanced through the use of *theories of practice*, the development of mental maps articulating an individual's core assumptions about a problem of practice and their chosen action strategies that arise from those assumptions. Through the use of theories of practice, professionals enhance their capacity for *double-loop learning*, in which they test their core assumptions and chosen action strategies and reflect on the results in a way that allows for further revision of both strategies *and* assumptions.

Though the vocabulary of theories of practice has become commonplace in the field of organizational behavior, few empirical studies have explored the usefulness of Argyris and Schön's ideas for understanding the actual decision-making practices of professionals in real-world contexts (Lipshitz, 2000). Houchens and Keedy (2009) articulated a conceptual framework for how theories of practice explain the instructional leadership behaviors of school principals based on an earlier study examining the theories of practice of successful principals (Houchens, 2008). While the theories of practice framework proved useful for explaining the instructional leadership of these principals and their positive effects on teachers, and while the findings were congruent with previous research on how principals enhance student achievement through their interactions with teachers, Houchens (2008) found few examples of double-loop learning on the part of the principals. The author speculated that without structures to actively engage principals in testing their theories of practice against emerging problems, principals were unlikely to reflect deeply enough to achieve more than rudimentary single-loop learning.

Based on this assumption, the authors adapted the theory of practice framework to develop a principal coaching protocol designed specifically to foster more reflective consideration of instructional leadership practices. According to Reeves (2009), effective coaching practices focus on specific improvements in performance, utilize a clear learning or performance agenda, and involve timely, specific feedback on progress. The principal coaching protocol described in this study attempted to address all of Reeves' criteria for effective coaching.

The purpose of the study was two-fold: (a) first, to assess the extent to which the coaching protocol using theories of practice encouraged double-loop learning, enhanced the principals' self-understanding about instructional leadership, and contributed to improvements in teacher instructional practice as perceived by the principal; and (b) to gather feedback from participating principals about refinements or enhancements that should be made to the coaching protocol itself. Consequently, four research questions framed the study:

1. What were the principal's theories of practice for assisting a specific teacher in improving his or her instructional performance?

2. What were the specific outcomes of the principal coaching protocol for the targeted teacher?
3. How did the coaching protocol shape the principal's self understanding about her instructional leadership?
4. How did the principals perceive the benefits or limitations of the coaching protocol in general?

Pseudonyms are utilized throughout this article for all principals' names and the names of their schools.

Review of Literature: Theories of Practice

Argyris and Schön (1974) believed that theory and practice were interlocking and interdependent components of professional problem solving. Their conception of theories of practice sought to spell out this natural and necessary connection in an attempt to support more effective professional behaviors. Theories, the authors argued, are "vehicles for explanation, prediction, or control" (Argyris & Schön, 1974, p. 5). All human beings make countless daily decisions based on underlying values, beliefs and assumptions that frame an individual's perception of the world. Argyris and Schön's unique contribution to the study of organizational behavior was in using theories of practice to help professionals unearth these tacit, often subconscious assumptions that shape their chosen action strategies. Professionals who, using theories of practice, reflect on and actively refine their core assumptions engage in a much deeper, cognitively complex, and ultimately more effective form of problem solving, which Argyris and Schön called "double-loop learning," compared with the typical, reflexive method of trial and error typically used, which they called "single-loop learning."

A number of studies have applied the theory of practice framework to the behaviors of educators and other professionals with positive initial results (Ferry & Ross-Gordon, 1998; Friedman & Lipshitz, 1992; Kirby & Paradise, 1992; Kirby & Teddlie, 1989; Robinson & Le Fevre, 2011; Tsangaridou & O'Sullivan, 2003; Rogers, 2004). Keedy and Achilles (1997) and Keedy (2005), however, first suggested the use of theories of practice for studying the work of school principals. The authors argued that state-mandated, whole school reform efforts were ultimately

ineffective without a transformation of relationships and professional interactions among teachers and administrators and suggested that through the use of theories of practice, education professionals could engage in more meaningful, self-reflective inquiry and problem-solving, ultimately building more positive, outcome-oriented school cultures. Building on this line of argument, Houchens and Keedy (2009) developed a conceptual framework for applying theories of practice to the most crucial dimension of school principal behavior: instructional leadership. Defined as "principal behaviors which were meant to promote higher levels of student achievement through the principal's interactions with teachers" (p. 56), Houchens and Keedy (2009) argued that in today's outcome-based educational environment, instructional leadership is the most important aspect of principal decision making (Hallinger, 2010).

According to Houchens and Keedy (2009), through qualitative inquiry principal theories of practice could be "mapped," graphically illustrating the linkages between a principal's core assumptions about teaching, learning and the principal's instructional role and the principal's key action strategies for promoting higher levels of student achievement. The authors suggested that mapping theories of practice might be the first step in helping principals become more reflective practitioners and building capacity for double-loop learning. Houchens (2008) applied this framework to examine the theories of practice of four purposively-chosen, successful elementary and middle school principals. The researcher sought to visually map the principal's core instructional leadership theories of practice, examine the effects of the principal theories of practice on teachers, and explore the extent to which the principals engaged in double-loop learning.

Houchens (2008) identified and documented four to eight key theories of practice for each principal. Cross-case analysis revealed eight commonalities embedded either as assumptions or action strategies in all four principals' theories of practice. Inviting teacher input was a key dimension of the principals' instructional leadership, making it the most widely-used theory of practice. The principals shared utilitarian assumptions that participative decision making would lead to higher levels of job satisfaction for teachers, which would further

enhance student learning. This linkage of assumptions to principal behaviors was a unique contribution of Houchens (2008) study to research on instructional leadership, and offered a practical application for the concept of theories of practice. Additionally, Houchens (2008) explored the effects of these principal theories of practice on teachers and found outcomes consistent with previous studies on the impact of effective principal behaviors, including a personal sense of responsibility for student learning outcomes, a strong personal identification with the school, and a belief that their opinions were valued.

Despite these positive results using the theory of practice framework to document the thinking and behavior of effective principals and its effects on teachers, Houchens (2008) did not find evidence that the participant principals had ever engaged in reflective practice that caused them to actively question and refine their core assumptions (double-loop learning). It was beyond the scope of their study to identify why this was so, but the authors speculated that the traditional principal focus on managerial (rather than instructional) concerns, the test-driven aspects of school accountability, and the overall lack of collective inquiry and professional dialogue in schools might all contribute to the lack of double-loop learning, even among successful principals.

Ultimately the authors speculate that without a clear structure and facilitated protocols to actively engage principals in testing their theories of practice against emerging problems, rather than simply reflecting back on past problems of practice as in the Houchens (2008) study, principals are unlikely to reflect deeply enough to achieve more than rudimentary single-loop learning. Thus, the authors developed the coaching protocol (Reeves, 2009) described in this present study, using the theory of practice framework developed by Houchens (2008) and Houchens and Keedy (2009) to create a guided method by which principals might more deeply and intentionally practice double-loop learning.

Method

The researchers, who were all former school principals, also served as coaches for the study, developing and delivering a coaching protocol

that established the participant principals' theories of practice relative to a specific problem of practice. The researchers/coaches then assisted principals in testing and refining their theory of practice over the period of one school year. The researchers used a naturalistic, multi-case study design to examine the coaching protocol process and its effects within the contextualized situations of each principal. Data were gathered from transcribed recordings of all coaching sessions and from artifacts generated during the coaching process, including written principal theories of practice and a written reflection exercise. Descriptive and pattern coding was used to conduct within- and cross-case analysis relative to the research questions.

Selection of Subjects

The researchers, who serve in university or practicing administrative roles in one Southeastern U.S. state, contacted leaders from the local educational cooperative to solicit nominations for the study (Hunter, 1953). Cooperative leaders were asked to identify principals who exhibited characteristics of reflective leadership, on the assumption that leaders who demonstrated such characteristics would be most amenable to a coaching study that focused on improvements to instructional leadership through feedback and self-reflection (Houchens, 2008). Researchers contacted nominees for an initial interview to establish the principal's level of interest and subsequently narrowed the subjects to a purposive sample of four.

All participant principals were female and served in elementary school settings. The researchers desired to purposefully choose male and secondary principals for participation in the study also, but none were identified during the nomination process. The researchers decided it was more important to include principals who met the selection criteria, even if the sample was relatively homogeneous. Janet Keele (Case Study A) was in her first year as principal at Hobday Elementary, which serves 235 students in a small rural district of under 2,000. Keele had previously served as a teacher and assistant principal at Hobday before taking the helm as principal. Dawn Bibbs (Case Study B), on the other hand, was a veteran educator of 27 years and had served as

principal of Trudell Elementary in a larger, rural/urban district for 13 of those years. Dollie Boulden (Case Study C) was in her third year as principal of Sherman County Elementary, but had served as teacher elsewhere in her small suburban district for 22 years. Finally, Ingrid Thompson was in her first full year as principal of Rourke Elementary in a larger nearby district of 13,000 students. Thompson had previously served as curriculum coordinator at Rourke and took over as interim principal at Christmas the year before when her principal was selected to head a new high school in the district.

Table 1 Displays demographic data on the subjects and their schools. Pseudonyms for all principals and their respective schools are used throughout this study.

Table 1
Demographic Comparisons of Case Study Principals

Case Study	A	B	C	D
Principal	Keele	Bibbs	Boulden	Thompson
School	Hobday	Trudell	Sherman	Rourke
Yeras as Principal	1	13	3	1 1/2
Total Years of Experience	9	27	25	17
Student Population	235	499	670	510
District Population	1,827	10,918	3,125	13,317

Coaching Protocol

The researchers developed and then engaged participating principals in a year-long coaching protocol that involved at least three, and up to five, coaching sessions, most of which were face-to-face, but some of which were conducted by phone. Because teacher quality has been identified as one of the most important variables correlated to high levels of student achievement (Rockoff, 2004), and because the heart of instructional leadership is how the principal supports and encourages effective teaching practices (Blase & Blase, 1999; Hallinger, 2010), the researchers asked participating principals to identify one teacher in her

building who, in the principal's estimation, needed to improve her performance (all selected teachers were female). The principal's efforts to assist this teacher constituted the problem of practice for the study. The researchers emphasized that a goal of the study was to help the principal improve her instructional leadership, in part by focusing on improving teacher performance. It was not an explicit goal of the study that the teacher should actually improve, but rather that the principal would apply a self-reflective theory of practice to the problem of how she would assist the teacher's efforts to improve. As reported in the findings below, not all teachers actually improved.

The researchers used a protocol of scripted questions to guide principals through an analysis of their problem of practice, establishment of their theory of practice, and subsequent testing and revision of their theory of practice based on feedback from its implementation, and then finally through a principal reflection on the protocol itself. The protocol reflected a version of what Bloom, Castagna, Moire, and Warren (2005) called "transformational coaching," which emphasizes the coach's role in helping the client broaden, deepen, or transform his or her interpretation of what is happening to improve effectiveness. Table 2 displays the basic structure of the coaching protocol.

Table 2
*Components of Coaching Protoco*l

Session	Elements of Protocol
First Session	1. Overview of theories of practice. 2. Establish principal's general assumptions about good instruction and the principal's role in promoting good instruction, assumptions specific to the problem of practice (a teacher who needs to improve his or her performance), and the principal's tentative action plan for helping the teacher address the problem. 3. Collaboratively map the theory of practice.

Interim Follow-up(s) (Two-to-three sessions)	1. Review theory of practice, progress made toward implementing action plan, progress of teacher in improving her performance, principal's perspective on why progress is/is not being made, and possible revisions the principal wants to make to theory of practice (assumptions or action strategies) as a result. 2. Complete written reflective exercise, review and discuss for possible further revisions to theory of practice. 3. Repeat as needed once or twice more throughout the year
Final Session	1. Discuss teacher's progress toward performance improvement and principal's perceptions regarding why the teacher did or did not improve and implications for the future. 2. Discuss and establish final revisions of the principal's theory of practice. 3. Discuss principal's perceptions of the coaching protocol itself.

Data Collection

The researchers gathered data for this study by transcribing recordings of all coaching sessions, both face-to-face and on the phone, totaling more than 20 hours for all subjects combined, and through review of the principal's written theories of practice and a reflective exercise in which the principal was asked to write about a recent face-to-face interaction during which she provided feedback to a teacher on how the teacher could improve her performance (Houchens, 2008; Ruff & Shoho, 2005).

Data Analysis Procedures

The researchers used constant comparative analysis to identify emerging patterns in the data (Glaser & Strauss, 1967). Descriptive and pattern coding was used to analyze both within-case and cross-case patterns (Saldaña, 2009). A narrative of thick, rich description and data displays (Miles & Huberman, 1994) portray the results. Within-case data were displayed through visual representations of each theory of practice based on the conceptual framework developed by Houchens and Keedy (2009).

Trustworthiness and Methodological Limitations

Trustworthiness was supported through multiple data sources, prolonged engagement, and member checks, which took the form of continuous feedback and participative analysis on the part of principals as they reviewed and refined their emerging theories of practice. This study was limited to the experiences of four principals in one Southeastern state but provides useful insights into the use of principal theories of practice within a coaching protocol in general.

Results

The participant principals articulated similar theories of practice, but subtle differences in their general assumptions about teaching and learning and their specific assumptions about the problem of practice shaped their chosen action strategies for helping their target teacher improve her performance. Two of principals (Keele and Bibbs) reported that their chosen teacher did indeed improve her performance as a result of the principal's theory of practice, while the other two principals did not. In fact, Bouldon and Thompson chose to non-renew the contracts of the teachers at the end of the school year. All the principals, however, reported positive perceptions of the coaching protocol and felt their instructional leadership had been enhanced as a result.

Three principals (Keele, Bouldin, and Thompson) made revisions to their theories of practice over the course of the year, based on reflection

and feedback elicited through the protocol. Detailed findings are discussed below.

RQ 1: Principal Theories of Practice

Participant principals were asked to select a teacher who needed to improve his or her performance (all selected teachers were female). The coaching protocol then guided the researcher/coach and principal through the articulation of a theory of practice for addressing this problem, including the principal's general assumptions about teaching and her role as an instructional leader (Houchens, 2008; Houchens & Keedy, 2009), specific assumptions about the problem of practice, and a tentative action plan for how the principal might help the teacher address her performance issue. While there were commonalities among all the principals' theories of practice, each action strategy unfolded differently depending on the context and the principal's perceptions of the teacher's needs.

Keele Theory of Practice. Principal Janet Keele of Hobday Elementary selected a second-year, non-tenured teacher as her focus. Based on classroom observations, Keele was concerned the teacher's instruction lacked rigor and high expectations for student learning. She suspected that the teacher lacked a clear understanding of what proficient work should look like, and therefore the examples she modeled to students were insufficiently rigorous. Keele developed an action for plan for assisting the teacher that included having the assistant principal, a veteran educator with good instructional skills, model lessons for the teacher. Keele would also conduct more informal classroom visits so she could increase her confidence in her own assumptions about what was at the root of the teacher's poor instruction. Keele also planned to meet regularly with the teacher throughout the school year to review student work samples and achievement data.

Keele's theory of practice was based on her belief that good instruction was marked by "rigor, relevance, and relationships," a reference to the work of Bill Dagget (International Center for Leadership in Education, 2011), and that as principal she should take a key role in modeling, communicating, and monitoring high-quality

instructional practices for teachers. Keele believed she must be heavily involved in the instructional program of the school so she could provide teachers accurate feedback on their performance. She also expressed some reticence about directly confronting her focus teacher's performance issues. Keele worried that the teacher would experience negative emotional reactions to her guidance, in part because the teacher seemed over-confidant about her own abilities, but also because Keele assumed that teachers tended to be emotionally fragile and defensive regarding their instructional practices:

> I don't want to completely crush her. I don't want to break her spirit as though she hasn't made progress. I want to cultivate that in her [a sense that the teacher has improved over time] but at the same time [help her see] that she is not making the mark in this area. I feel like there is that thin line – if I'm too harsh I'll crush her spirit and if I'm not directive enough she's not going to improve. That's the [overconfident] personality I'm dealing with and my [non-confrontational] personality as well -- that conflicting personality, that inner struggle.

Through the coaching protocol, Keele would eventually rethink her assumptions about the emotional dangers of giving teachers performance feedback. Figure 2 provides a graphic display of Keele's initial theory of practice. Graphic displays of other principal theories of practice are not provided here because of space limitations, though they are discussed via narrative, and were developed for all principals as a component of the coaching protocol.

Problem of Practice: How do I support a relative new teacher in improving the instructional rigor of her classroom? Based on the following assumptions, I will…

GENERAL ASSUMPTIONS

5. Teachers' spirits are easily crushed, so directness must be balanced with gentleness and positive feedback.

AND...

4. To effectively help teachers improve their practice, principals must be personally involved and aware of what is taking place in the classroom so that coaching and supervision can be tailored to specific teacher needs.

AND...

3. When communication, modeling and collaboration fail to improve the rigor in a teacher's practice, more directive measures are necessary. The teacher should be asked to produce examples of student work that demonstrate rigorous instruction and content and student work that demonstrates proficiency.

AND...

2. Instructional leaders should communicate their vision of good instruction to teachers, model best practices, and use collaborative analysis of student work to measure whether good instruction is taking place.

AND...

1. Good instruction is characterized by the presence of rigor, relevance, and relationships (Dagget).

AND...

ASSUMPTIONS SPECIFIC TO PROBLEM

1. Examples of student work indicate neither the teacher nor her students have a strong understanding of what proficient work looks like.

AND...

2. Because the teacher is overconfident, she doesn't realize she lacks a strong understanding of what proficient work looks like, and resists making meaningful changes in her instruction.

AND...

3. The principal needs to be more present in the teacher's classroom to know for sure if these assumptions are correct. If so, she will be able to provide the teacher richer, specific feedback on how to improve her understanding of proficiency and thus improve student performance (as measured by student work).

SO...

ACTION STRATEGIES

1. Continue having assistant principal model best practices for the teacher.

AND...

2. Engage in regular walkthroughs and informal classroom visits to observe the teacher, watching especially for examples of proficiency the teacher models for students.

AND...

3. After modeling and classroom visits, begin meeting with the teacher regularly to review student work and formative assessment data to engage in conversation about indicators of proficiency and how the teacher can better demonstrate proficient work for students.

Figure 1. Janet Keele initial theory of practice.

Bibbs Theory of Practice. Dawn Bibbs, principal of Trudell Elementary School, was a confident instructional leader. A former staff developer, Bibbs believed strongly, based on previous experiences, that effective teaching practices could be enhanced through high-quality professional development. The teacher Bibbs chose for this study exhibited sound instructional techniques, however, and so Bibbs was less confident about how to guide the teacher toward improvement. According to Bibbs, this veteran, tenured teacher who had transferred to Trudell Elementary four years before, struggled with classroom climate issues. Students were afraid of her and parents often complained that the teacher was harsh in her interactions with children. Bibbs had moved the teacher from third to fifth grade the year before, hoping this would help, but when she administered a survey to fifth grade students at the end of the year asking the one thing they'd improve about the school, 60 of 72 students wrote the teacher's name.

Bibbs said the teacher was concerned about student and parent perceptions and had made efforts to improve. Bibbs had noted the need to improve her relationship with students on the teacher's growth plan for two consecutive years and asked the teacher to read a number of books on strategies for nurturing a positive classroom environment. While the teacher had made some effort to be more relaxed, jovial and flexible with students, Bibbs felt her progress was limited to times the teacher was being directly observed by her or another administrator. Moreover, Bibbs said other teachers often complained about her being harsh and impolite to colleagues.

The deeply interpersonal nature of these problems made Bibbs question her own capacity to coach this teacher toward improvement. Her self-doubt was encapsulated by her feeling that the teacher basically had a "personality issue" and "personalities don't change:"

> I guess because I'm a really strong curriculum person, and to me that's more black and white [laughs], this is – there is personality that goes in there with it. Classroom management even to me is more black and white. You see strategies and either you do it or you don't. Relationship is not as black and white. It's harder to prove whether you are doing it or not doing it.

Nevertheless, Bibbs developed an action strategy for addressing the teacher's needs based on her previous experiences coaching teachers to improve more traditional instructional problems. In this way, Bibbs seemed to be testing her core assumptions, even though she had relatively little faith in her action strategies. She resolved to build on the teacher's previously-developed professional growth plan to continue providing structured professional development opportunities geared toward improving the teacher's classroom climate. Trudell Elementary was involved in a year-long, school-wide positive discipline training and study program called Love and Logic (Fay & Funk, 2011), and Bibbs would encourage the teacher to use the program's strategies and would conduct more frequent classroom visits to monitor the teacher's implementation.

Bibbs also selected another strategy based on her assumptions about what had previously worked to help teachers improve their practice: gathering and analyzing data. Bibbs decided she would work with the teacher to conduct a student survey mid-way through the year to gather feedback on classroom climate, and in this way actively engage the teacher in measuring her own progress. To Bibbs' surprise, the teacher did improve as the discussion below describes, but Bibbs believed the positive results were entirely the product of frequent monitoring and pressure to address the problem, not genuine, long-lasting changes of practice. In this way, Bibbs' core assumptions were confirmed, both in terms of how to most effectively address teaching performance problems, and that core personality issues don't change for most individuals.

Boulden Theory of Practice. Dollie Boulden was a veteran teacher of the Sherman County Schools and was in her third year as principal of Sherman County Elementary. Boulden's core assumptions about instruction focused heavily on the link between effective classroom management, which she believed primarily took the form of clear, well-established routines, procedures, and behavioral expectations, and effective teaching strategies. In Boulden's vew, high-quality instructional strategies help foster effective classroom management, and likewise depend on a smooth-running classroom environment. For the coaching protocol Boulden chose a teacher in her fourth year – her final

year before tenure. Boulden was concerned about the lack of structure in the teacher's class and pointed to reading data that indicated students were not making sufficient academic progress. Boulden had previously coached the teacher about these issues and the teacher made improvements, but Boulden wanted to carefully assess the extent of the teacher's progress before making the decision to grant her tenure. Boulden expressed concern that the teacher lacked "withitness," a kind of intuitive awareness of student off-task behaviors, the extent to which students understood the lesson objective, and how those two factors interacted.

Boulden's approach to working with the teacher reflected her own assumptions about the key role of the principal in shaping good instructional practices and in using data as an objective measure of teaching performance. Boulden's action plan included regularly meeting with the teacher to share her concerns, personally modeling effective instructional and classroom management strategies, and using progress monitoring data to obtain regular measures of student learning. For Boulden, the final decision about any untenured teacher would depend on student achievement outcomes:

> I took their data and we're going to sit down and I want them to tell me, "What do you see as your weakness in the classroom?" I'll meet with them weekly and I'm going to go in and do some modeling, but also, in the process, I want to be able to coach them when I see things. I feel like with this coaching, it's not an "I gotcha," but I'm going to coach you and we're going to work to make you better.

While Boulden's teacher did not ultimately make sufficient progress to earn tenure, and her core assumptions were confirmed, as a result of the coaching protocol Boulden concluded that a deep teacher willingness to be self-reflective and self-critical was a key to instructional success – something this particular teacher lacked in Boulden's assessment.

Thompson Theory of Practice. Ingrid Thompson was in her first full year as principal of Rourke Elementary School. She had previously

served as the school's curriculum coordinator and assumed principal duties when the previous principal left in January the year before to help open a new district high school. For this study Thompson chose a teacher who, like the teacher at Dawn Bibbs' school, struggled primarily with maintaining positive relationships with teachers and students. This was the first such performance issue Thompson had faced as principal, and she expressed some concern about how to best assist the teacher with improvement.

Thompson's selected teacher worked in a pre-school classroom. While the teacher had worked with pre-school before, this was her first year as classroom teacher of record. Thompson described the teacher as extremely conscientious and concerned about following every rule and regulation about the structure and resources required for preschool classrooms, something that had been challenging since the school had moved into a brand new building over the previous summer and classrooms and outside areas were still partially under construction. Moreover, Thompson described the teacher as extremely inflexible and demanding of both adults and children, and so her classroom was tense and stressful as a result.

Thompson attributed much of the teacher's behavior to stress from her family and non-work-related factors. She expressed a core assumption that most teachers want to do their best for students and are eager to learn new techniques to improve their effectiveness. And while Thompson was unsure about how to best manage a "personality problem" like this teacher presented, she seemed confident that, with coaching from herself and the district's preschool consultant, the teacher could improve her performance. She designed an action plan based around having frank conversations with the teacher about how other adults perceived her communication and the negative climate of her classroom. Since the teacher was procedurally focused, Thompson hoped the preschool consultant could orient her to the policies and procedures for preschool and assist her in feeling more confident that all program expectations would be met without unnecessary stress or conflict with others. Finally Thompson resolved to spend more time in the teacher's classroom, especially observing her interaction and collaboration with other preschool teachers, with whom she was expected to engage in daily planning.

By the end of the year, Thompson would report that the teacher had made little progress, despite her efforts and those of the pre-school consultant. Thompson chose not to renew the teacher's contract, and revised her core assumptions about teaching and learning to place a greater emphasis on the importance of collaboration and teamwork in teacher effectiveness.

The theories of practice identified for each of the four participant principals served as the foundation for the coaching protocol. With the help of the researcher-coach, each principal reflected on the specific problem of practice (how to help a struggling teacher improve her performance), and developed an action plan based on the principal's general assumptions about teaching, learning, and instructional leadership, and specific assumptions about the individual teacher's strengths and weaknesses. At subsequent coaching sessions, the principals reported to researchers the progress made at implementing the action plan, reflected on which aspects of the plan were working effectively and which weren't, and reviewed and revised their theory of practice accordingly, including any changes to action steps or underlying assumptions (a key component of double-loop learning).

RQ2: Teacher Outcomes

The purpose of the coaching protocol described in this study was to provide a framework for principals to reflect on their instructional leadership by focusing on a specific problem of practice. The researchers explored whether using a theory of practice to frame, understand, and reflect upon instructional leadership might give principals greater capacity to engage in double-loop learning, which Argyris and Schön (1974) considered the pinnacle of reflective practice. Principals chose a teacher who needed help improving her instructional practice, but the goal of the protocol was not specifically to help the teacher improve. Rather, the coaching protocol was designed to enhance principal self-reflection as the principal engaged with the teacher in professional dialogue and improvement. Nevertheless, outcomes for the teacher played a key role in providing the feedback for the principal's theory of practice, a necessary component for double (or

single) loop learning. Thus, this research question examined what happened to the teacher's practice as a result of the principal's efforts.

Outcomes for Principal Keele's chosen teacher. Janet Keele of Hobday Elementary reported marked improvement in her focus teacher's instructional practice. Through her own efforts to continually engage with the teacher in dialogue about what proficient student work should look like, and through team teaching with the assistant principal, Keele said the teacher had shown rapid growth in her instructional acumen and in measurable student learning outcomes Most importantly, Keele said the teacher was demonstrating far more personal responsibility for student growth and more humility in her interactions with other teachers and a willingness to learn and improve:

> Those continual conversations, what we expect kind of got ingrained in her has she went. I've done walkthroughs and the feedback I've given her as opened her eyes. "I was sitting beside Johnny and while you were doing this and this, Johnny was completely off task. What will you do?" Putting that accountability on her, I think that opened her eyes and made her focus more.

Keele's experience with this particular teacher paralleled significant developments in her interactions with teachers school-wide, discussed below.

Outcomes for Principal Bibbs' chosen teacher. Like Keele, Dawn Bibbs also reported significant improvements in her chosen teacher's classroom culture and climate. Bibbs said the teacher embraced the Love and Logic classroom management program, actively participated in trainings and workshops, and demonstrated many of the positive behavior management techniques introduced through the program. Bibbs' classroom observations and the student survey Bibbs and the teacher administered near the end of the year indicated more positive student feelings about the teacher. Nevertheless, Bibbs believed that the teacher's improvements were largely "surface" changes in practice, brought on mainly by the intense focus and attention Bibbs devoted to the teacher and her growth need throughout the year.

On the teacher's final evaluation, Bibbs marked "Growth Needed" on the standard for classroom learning climate. She said the teacher was

disappointed, but agreed to continue her efforts at improvement. Bibbs also admitted she had not addressed concerns about the teacher's sometimes hostile interactions with other staff members, and hoped to make that a priority in the year ahead.

Bibbs indicated that if the teacher was untenured, she would not have renewed her contract, and predicted that classroom climate will remain a growth area for the teacher "forever...I don't know if it can ever become a habit." Nevertheless, Bibbs considered her efforts with the teacher a success, though she will continue to closely monitor the teacher's work and development.

Outcomes for Principal Boulden's chose teacher. Dollie Boulden chose to non-renew her teacher's contract at the end of the school year. While the teacher had made improvements under Boulden's tutelage and direction, she did not feel the progress had been sufficient to justify awarding the teacher tenure. As indicated by her assumptions and action plan, Boulden's decision was driven largely by the teacher's failure to demonstrate sustained student learning gains as measured by various assessment instruments:

> I did see some improvement, because at one time the students were making progress – or it appeared that they were making progress. But in the long-term, it didn't sustain it over time. And she also seemed to be more of the, you know, trying of things – of really making sure her students were engaged. But I am not so sure they were engaged on the correct activities to promote optimal growth.

Outcomes for Principal Thompson's chosen teacher. Like Boulden, Ingrid Thompson chose not to renew her teacher's contract at the end of the school year. She reported that the preschool consultant's efforts to encourage the teacher, and her own conversations and low evaluation marks did not make a discernible difference in the teacher's level of flexibility, disposition or interactions with other adults. Thompson considered the teacher's failure largely a product of her personality, which then led to negative classroom outcomes:

> That uptightness . . . boils over into the classroom. So you see it in the tenseness of the kids, the routines. You don't see the questioning flowing, you don't see the independence. It just doesn't flow because of that constant stress that you feel in the room.

Like Boulden, Thompson felt she had given the teacher every opportunity to improve and avoid non-renewal.

In summary, two of the four principals (Boulden and Thompson) reported insufficient progress in their teachers' performance and chose to non-renew contracts at the end of the year. Bibbs reported progress in her teacher's performance, but also stated that if the teacher had not been tenured, she would have non-renewed her contract. Finally Principal Keele reported significant progress on the part of her chosen teacher, and positive effects for other teachers in her building as well.

RQ 3: Opportunities for Double-loop learning

The coaching protocol described in this study was designed to build capacity for self-reflection in principals using a theory of practice framework. Research Question 3 explored whether, through the coaching protocol, principals could use their theory of practice to reflect on both their chosen action strategies for addressing a problem, and their underlying assumptions, a process Argyris and Schön (1974) called "double-loop learning."

Principal Keele: Reconceiving core assumptions. Of the four principals who participated in this study, Janet Keele exemplified the most dramatic case of double-loop learning, making substantial revisions in both her core assumptions and action strategies during each phase of the coaching protocol.

When Keele first developed her theory of practice for assisting the teacher, she talked at length about her concern to balance critical feedback with nurturing a positive, relationship-oriented professional culture. She expressed reticence about being overly directive in her instructional leadership, fearing that teachers who felt criticized would have low morale and school culture would suffer as a result. But during her second coaching session, Keele reported that, in reflecting on her

theory of practice, she believed that low academic rigor was not just a problem for the teacher she chose for this study, but for many of her teachers across the school. And while it was true she feared causing emotional damage by confronting her teachers with this concern, Keele had decided she must take that risk on behalf of her students.

Keele went on to conduct a school-wide faculty meeting in which she shared evidence from walkthroughs, instructional rounds, and analysis of student work indicating low expectations for student learning. To her surprise, the teachers responded with an enthusiastic willingness to improve the rigor of their lessons. Collectively the staff engaged in a school-wide effort to address this issue, and Keele gathered follow-up data throughout the year indicating improvements.

Keele discovered that she underestimated the level of emotional trust and positive relationship she had already developed with the staff, in part the result of having taught in the school for eight years prior to becoming principal. She realized she could be directive and critical without jeopardizing school culture and climate:

> I could get them to see that they could do this [admit their need to improve] without revolting, and without not taking me seriously too. That's why I thought about it and realized that I could be direct without being mean, without coming in and having them all hate me at the end of the meeting. And understanding too that I could appeal to their emotional side because that had worked in the past with this group.

Keele parlayed her success with the whole faculty into direct conversations with the teacher she chose to focus on for this study, using the school-wide focus on raising rigor to address this teacher's specific needs. In the final coaching session, Keele revised her theory of practice to indicate her newly emerging assumption that being directive and confronting instructional problems is not at odds with maintaining a positive professional climate, and that in fact, positive staff relationships build the trust necessary to engage in school-wide instructional improvements (see Figure 2).

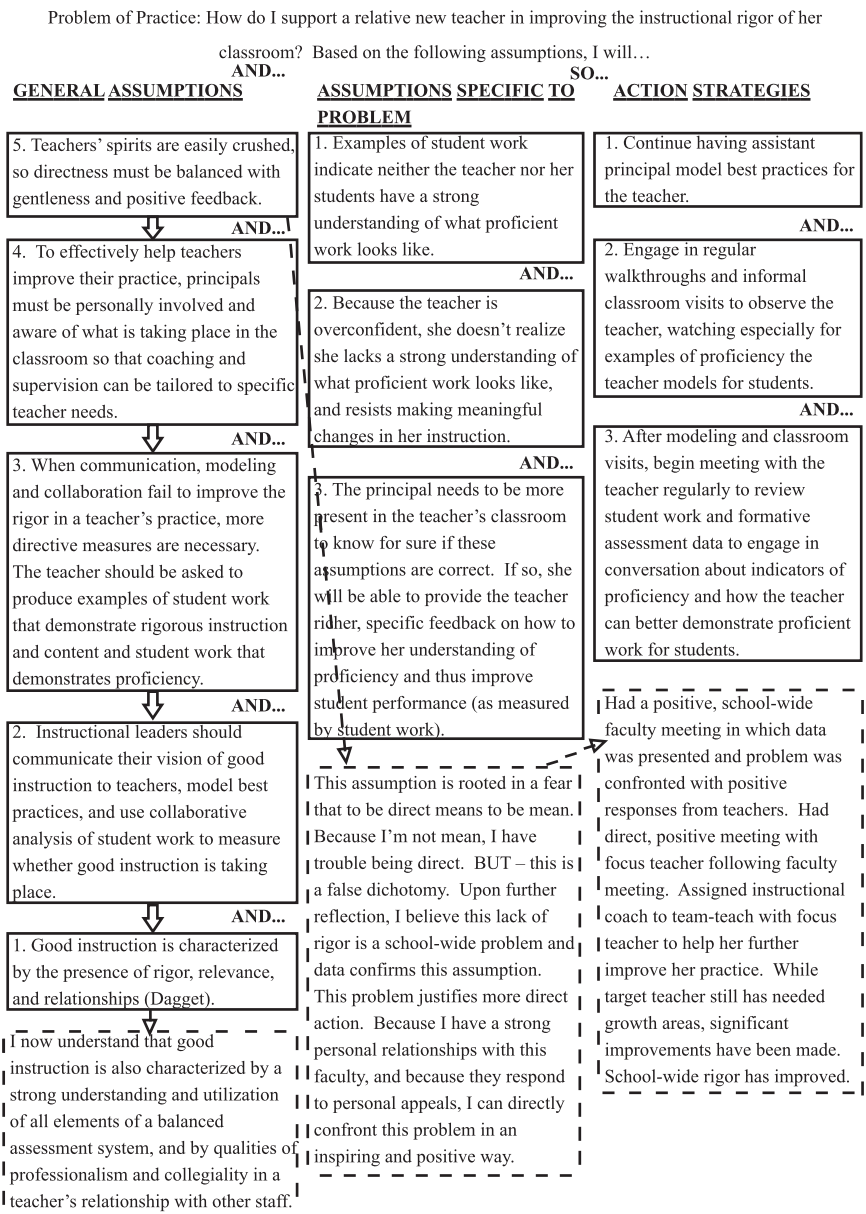

Figure 2 Janet Keele final theory of practice, reflecting revisions to assumptions and action strategies (indicated by dashed lines).

Principal Bibbs: Confirming core assumptions. Dawn Bibbs' action plan for addressing her teacher's performance issues yielded more positive results than she originally expected. Because she perceived the teacher's problem as a "personality issue," and because Bibbs' main assumptions and action strategies for instructional leadership were derived from her previous experiences as a staff developer designing professional learning opportunities around more traditional instructional problems, she initially questioned whether she could make a difference in this teacher's performance since "personalities don't change." Nevertheless, Bibbs' action strategy, structured around the same kind of professional reading, training, data collection and feedback she would normally use to address a more conventional instructional issue, yielded positive results. The teacher worked hard to implement positive classroom management strategies that student surveys confirmed where improving the climate in her room.

Even though Bibbs' anticipated that the teacher's improvements were largely "surface" level and would continue to require on-going monitoring and feedback, she deemed her action plan a success and saw no need to make changes in this component of her theory of practice. Likewise – and to her surprise – Bibbs' experience with this teacher actually confirmed the efficacy of her core assumptions about how principals can best promote effective instructional practices. Given the overall success of her theory of practice, Bibbs' did not make revisions to her assumptions or action strategies in a way that represents either single- *or* double-loop learning. She did, however, report a greater confidence in her own instructional leadership as a result of the reflection required throughout the coaching protocol and the revelation that her assumptions actually did contribute to effective leadership action strategies for a wide variety of teaching problems:

> Part of the reason I picked this [particular teacher to work with] is it's not my strength area [dealing with interpersonal communication issues]. I know I'm really good at dealing with curriculum and changing instruction, but it's much more touchy dealing with people and their personal issues. That's not my strength area. This helped me come up with a way to approach it the same way I approach curriculum. That was very helpful.

While Bibbs did not exhibit double-loop learning in the strictest sense, her experience with the coaching protocol, discussed further below, did provide the opportunity for affirming reflective practice.

Principal Boulden: The importance of teacher self-reflection. Transcripts of coaching sessions with Dollie Boulden suggested she diligently followed the steps of her action plan for addressing her chosen teacher's performance problems. While the teacher did not improve sufficiently for Boulden to grant her tenure, the principal believed her basic strategies for coaching the teacher toward improvement were sound and successful. Boulden held assumptions that student achievement data was the strongest criterion of teacher success and used progress monitoring of student data to evaluate the teacher's performance. When the teacher's students did not demonstrate long-term improvements, Boulden decided to non-renew the teacher's contract at the end of the year.

During each session of the coaching protocol, the researchers prompted the principal to make changes or revisions in her theory of practice. According to Argyris and Schön (1974), double-loop learning occurs when a practitioner revises his or her theory of practice (assumptions and/or action strategies) over time as a result of feedback. This feedback typically – but does not always – manifest as a failed action strategy or strategies. Boulden interpreted her action strategies as being successful, and so did not suggest any needed changes to that component of her theory of practice at the end of the coaching protocol.

In the final session of the coaching protocol, Boulden did, however, reflect on the core assumptions of her theory of practice and concluded, based on her experiences working with the teacher, that she has in the past underestimated the importance of teacher self-reflection as a key component of professional growth:

> [With under-performing teachers,] I think that it [poor outcomes] is always the kids' fault [in the teacher's mind]. I think she still doesn't realize that it is her [responsibility]. I don't think she is reflective and it doesn't matter to me how long I help a teacher if they are not reflective in their practices and they can't see their weaknesses then they aren't going to likely make improvement.

Boulden concluded that her theory of practice should reflect a greater emphasis on teacher self-reflection, and that in the future she would take this variable into greater consideration when hiring teachers and when communicating her expectations for teacher performance.

Principal Thompson: The importance of a teacher's team orientation. Like Dollie Boulden, Ingrid Thompson decided to non-renew her teacher's contract at the end of the year. The teacher had made little to no progress at improving her flexibility, classroom climate, and relationships with other teachers. Throughout the coaching protocol, Thompson indicated that she believed her action strategies were sound, but the teacher had simply failed to respond to her efforts and those of the pre-school consultant assigned to help her. In reflecting on her theory of practice during the final coaching session, however, Thompson indicated a key emergent insight for her was the vital importance of hiring teachers who had a strong orientation toward working amicably with other adults:

> Especially as education moves toward meeting all kids' needs, we have to do these things [collaborate with each other]; we can't expect one person to manage 24 kids [in isolation]. It has to be a team effort and it has to be more of a collaboration between us and if you burn your bridges between us [among other school staff members] your kids are going to suffer.

Like Boulden, Thompson concluded this was an important lesson to remember in hiring and especially when evaluating teachers for tenure. Thompson's final theory of practice indicated this revision in her core assumptions.

RQ4: Principal perceptions of the coaching protocol

Results of this indicated that, even when struggling teachers failed to improve their teaching as a result of the principal's efforts, the coaching protocol was nevertheless useful for building the principal's confidence and revealing new insights and assumptions about effective instructional leadership. Research Question 4 examined the participating principals perceptions of the coaching protocol and its impact on their instructional

thinking and self-reflection. All four principals reported strongly positive reactions to participating in the coaching protocol and could make no suggestions for improving or adjusting the protocol.

In particular, the principals appreciated the regular nature of the coaching sessions, which fostered a sense of accountability to follow through on the action plan components of the theory of practice; they expressed gratitude for the structures the protocol provided for engaging in self-reflection; and they felt the entire process greatly enhanced their confidence as instructional leaders.

Accountability. All four principals noted that the regularity of coaching sessions required them to continually monitor the action plan developed as a part of their theory of practice. This regular follow-up by the researcher/coach fostered a sense of accountability on the part of the principal to maintain what Janet Keele called "an intentional focus" on the problem of practice:

> I handle issues all the time. I handle issues with teachers, but I never develop a plan of continual improvement. I've already told you our professional growth plans are kind of invalid and not used the way that they should be. Our whole evaluation process, for that matter, is invalid. I think that's what's worked for me, [was] having some timelines and some guidelines to go by.

A structure for self-reflection. Likewise, the principals expressed appreciation for the opportunity to think through problems in an intentional way. Dawn Bibbs said she had previously considered taking the time to reflect on her practice as a kind of luxury, and that seeing her theory of practice as a written, graphic representation of her beliefs and behaviors as an instructional leader was affirming: "I really don't have time to think and reflect a lot. It's kind of neat to see that yes, this is me and how I think and how I work." Ingrid Thompson said the structure of the protocol helped her make more thoughtful decisions and avoid becoming overly emotional in response to the challenges her teacher presented.

> I think it was helpful in that a lot of times you get into heated situations, and we tend to react without looking at what is

> important, what is our [desired] outcome. In the beginning of this action plan, I knew what I wanted the outcome to be, for the teacher to improve and the situation to become workable. Later on I saw it wasn't happening, and then it helped me become clearer on what the outcome needed to be [non-renewal].

Confidence as an instructional leader. Above all, all four principals emphasized that the coaching protocol had increased their confidence as instructional leaders. Dollie Boulden said the protocol – which for her culminated in the decision to non-renew a teacher's contract, the first time she had done so – gave her encouragement that she could confront difficult situations and, despite the emotional toll, do what was best for students. Likewise, Dawn Bibbs faced a challenging problem – a competent, veteran teacher with poor interpersonal communication skills. Bibbs considered this issue outside her normal realm of expertise (curriculum and instruction), but discovered through developing a theory of practice that her core assumptions about instructional leadership were effective even with seemingly non-instructional problems. Bibbs credited the theory of practice coaching protocol for helping her connect her own skills as an instructional leader to the problem:

> I don't think I would have thought of it that way, getting the data and analyzing it, just like we do with an instructional problem, without this [coaching] process. It gave me confidence to use my strengths to attack all kinds of problems.

Discussion, Implications, & Suggestions

Building on literature promoting the use of theories of practice to enhance professional effectiveness (Argyris and Schön, 1974; Keedy, 2005; Keedy & Achilles, 1997), Houchens and Keedy (2009) articulated a conceptual framework for studying the instructional leadership of school principals. The authors found that while theories of practice proved useful for uncovering principals' underlying assumptions about teaching, learning, and leadership, even principals with a proven track record of success rarely engaged in the deepest forms of self-reflection,

which Argyris and Schön (1974) called "double-loop" learning. Emerging literature on the field of professional coaching (Aguilar et al, 2011; Reeves, 2009; Reis, 2007) suggests that reflective practice is best enhanced through formal structures that allow professionals the opportunity for action planning, feedback, and self-analysis. Thus, the authors of the present study adapted Houchens and Keedy's (2009) framework for using theories of practice to develop a coaching protocol for promoting more intentional, deeper reflection on instructional leadership – a critical component of school principal thinking and behavior.

The results of this study demonstrate the usefulness of the theory of practice framework as the focal point for professional coaching. Data suggested that principals took full advantage of the protocol to think deeply about their instructional leadership, made adjustments in their theories of practice, and engaged in varying levels of double-loop learning. This study advances research on theories of practice by demonstrating that such a framework not only serves to effectively describe principal thinking and behavior, but also suggest how it might serve to enhance principal effectiveness. Results indicated the basic structure of the protocol was sound and served the purpose of promoting thoughtful principal self-reflection. As Argyris and Schön (1974) suggested, participants found that by reflecting on their underlying assumptions and not just their chosen action strategies for solving the problem, they achieved deeper and more nuanced levels of self-understanding. The study raises important implications about principal professional development and points to rich possibilities for future research.

School district superintendents, instructional supervisors, professional development coordinators and others responsible for the professional growth of principals should consider utilizing a theory-of-practice-based coaching protocol to promote greater effectiveness in instructional leadership (Reeves, 2009). Likewise, university principal preparation programs should consider integrating the use of theories of practice in the training of aspiring school administrators. Trained coaches could be utilized to employ coaching protocols like the one described in this study to help pre-service principals hone their instructional leadership skills.

Future researchers should further advance the study of theories of practice and professional coaching by applying this protocol using other problems of practice and in a wider array of school contexts and for studying the instructional leadership of administrators other than principals, such as superintendents and various district-level leaders. The present study only included four elementary school principals. Likewise, all were female. Future studies should explore the use of theories of practice among more diverse populations.

This study raises many questions about coaching using theories of practice that future researchers should explore further. For example, what personal characteristics, if any, distinguish principals who experience more expansive developments in their theories of practice as a result of coaching (like Janet Keele in this study) compared with those who do not? While Dawn Bibbs found the coaching protocol helpful and affirming, she did not make substantial revisions to her own theory of practice. Is this a difference of Bibbs' much greater level of experience in education generally and as a principal specifically compared with Keele who was only in her first year as principal? Future studies should flesh out these differences to determine what kind of principal would best benefit from professional coaching using theories of practice, or if the protocol itself can be adapted or enhanced to yield more dramatic results for all participants.

Perhaps a more fundamental question, however, is what role the *coach* plays in the efficacy of coaching protocols like the one described in this study? Do differences among coaches yield different outcomes for participants? Do coaches need some level of training to effectively carry out this protocol and if so, what should be the nature of that training? Are there personal characteristics in coaches themselves that predispose some to be more effective than others? By necessity, the authors of this study had to serve as both researchers and coaches, but future studies should attempt to study the coach as a *subject and participant* of the coaching process itself to further elucidate these important questions. This present study may be a useful starting point for these future research efforts.

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