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School-Based Instructional Leadership and Problem Solving: Principals' Descriptions of Shared Issue Resolution

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SCHOOL-BASED INSTRUCTIONAL LEADERSHIP AND PROBLEM SOLVING: PRINCIPALS' DESCRIPTIONS OF SHARED ISSUE RESOLUTION

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ABSTRACT

Over the last half century, researchers added to a body of knowledge regarding principals' effective behaviors with few insights about *how* or *why* they acted. Current models purport that leadership emerges through various *collaborative* interactions among principals and other school-based leaders (i.e. teacher leaders, instructional coaches, content department heads, etc.) as they tackle academic and social-behavioral issues.

To illuminate these collaborations more clearly, I used the Critical Incident Technique (CIT) to investigate how selected South Carolina secondary school principals described their interactions with other school-based leaders as they collaboratively tackled instructional issues. For this study, instructional issues covered concerns regarding alignment of curriculum, instruction, and assessment, student assessment scores, and instructional delivery. Six selected secondary (grades 6 through 12) South Carolina principals recounted their examples of successful and unsuccessful examples of addressing instructional issues by interacting with other school leaders.

Principals related incidents they deemed representative of collaborative problem-solving about instruction. They participated in face-to-face interviews and reviewed their transcripts from the audio-recorded sessions. The analysis protocol derived from a synthesis of studies on leadership and problem-solving in the realms of business (Grint, 2005) and a two-decade series of studies in education by Leithwood and colleagues in the 1980s which was then replicated in the 2000s by Spillane's teams of researchers. Both sources identified a range of responses to addressing problems of various types and

structures. Both sources showed a similar tendency among typical and novice leaders to lean into an individualistic style as opposed to more sophisticated leadership approaches that involved more expertise and shared knowledge for addressing complex problems. This synthesis of sources produced an a priori coding list which I applied to the transcripts. Findings confirmed the original similarities among the business and education studies about leadership and problem-solving. Among these six principals' recall of their successful and unsuccessful approaches to instructional issues, their dominant problem-solving style was authoritarian, even when describing collaboration. Their narratives showed that collaboration extended into implementation of a decision that either the principal or the district already made before sharing the instructional issue.

DEDICATION

This dissertation is dedicated to all those who persevere. Regardless of the venue, to all y'all who may be struggling to make it happen for yourselves and others, let this document prove that the seemingly impossible can be done. You just have to look to the right places.

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I must first acknowledge Dr. Jane Clark Lindle, without whom this dissertation would never have been completed. Her seemingly limitless expertise, patience, and encouragement became the aggregate which paved a path to the culmination of this project.

I would also like to recognize the contributions of my committee, Dr. Hans W. Klar, Dr. Laura Olson, and Dr. Reginald D. Wilkerson, for providing feedback on my work and remaining flexible to my needs. As a novice researcher, it can be daunting to approach seasoned, well-published academics. However, this group, while straightforward, was always encouraging and helpful.

Last, but in all respects most important, I thank my wife for her never-ending confidence and encouragement during this process. For bearing all the nights I stayed up far too late, the weekends I remained sequestered in my office, the occasions I was ill-tempered and grumpy, and the kitchen that's three years into a renovation, I thank you. I beg the world to note that you are indeed a good woman, a gem to be treasured.

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CHAPTER ONE

INTRODUCTION

Background of the Study

Commentators continue a debate over just what, or who, defines leadership in a school (Bennet, Wise, Woods, & Harvey 2003; Heck, 1998; Neumerski, 2012; Timperley, 2005). Nonetheless, as the scholarly work on school effectiveness continues, an essential consideration must be whether the *leadership* of a school is equivalent to the *leader*, traditionally the principal, or whether it defines a broader network of purposeful and effective interactions (Leithwood & Steinbach, 1995; Neumerski, 2012; Spillane, Diamond, & Jita, 2003). This question is especially pertinent when considering the increasing complexity of problems encountered in today's schools (Bennett, Wise, Woods, & Harvey, 2003; Brenninkmeyer & Spillane, 2008; Harris, Moos, Moller, Robertson & Spillane, 2007; Spillane, White, & Stephan, 2009; Supovitz & Tognatta, 2013).

Leithwood and Steinbach (1995) asserted that "the core of administration is problem solving" (p. 38) and consequently investigated the cognitive practices, or thinking, of those considered to be expert problem solvers. Leithwood's, Steinbeck's, along with other partners' (1995), work gave insight into effective practices by delineating strategies found more often in an "expert" vs. a more "typical" approach to addressing problems in schools. They found it imperative to consider the thinking processes involved in problem solving as a principal's "overt behaviors are a result of their covert thought processes" (Leithwood & Steinbach, 1995, p. 7). Their account of the

variation between the processes used by expert vs. typical principals to address unstructured problems (i.e., those with unclear goals or incomplete information) showed marked differences in the level of collaboration and information gathering used by those considered more expert problem solvers (Leithwood & Steinbach, 1995). Although later critiqued for continuing to focus on the effects of a singular individual, the principal (Spillane et al., 2003), Leithwood and Steinbach's (1995) work provided substantial evidence regarding the reasoning employed by administrators as they approached solving problematic issues.

In contrast to the novice or more typical educational leader's individualistic focus, researchers began to spotlight practices of collaborative leadership and how social interplay among formal and informal roles provide leadership and direction at the school level (Mehra, Smith, Dixon, & Robertson, 2006; Timperley, 2005). However, a common criticism of this research pointed to its fixation on *what* these groups of leaders do and not the *how* or *why* (Neumerski, 2012; Spillane, Halverson, & Diamond, 1999; Spillane et al., 2003) nor, as in the case of this study, on the deliberative and interactive processes among the group members.

Initially, Spillane, Halverson, and Diamond (1999) applied Wagner's (1993) term, *blank spots*, to address the paucity of commentary regarding those deliberate and interactive processes. Spillane et al. (1999) maintained that without a focused investigation into the *how* and *why* of the interactions, including the deliberative and reflective processes associated with school leadership, "it is difficult to help other school leaders think about and revise their practice" (p. 10). Neumerski (2012) later extended an

assessment of instructional leadership studies supporting Spillane's (2005) charge of scholarly gaps concerning interactive leadership practices. Neumerski (2012) reported that the instructional leadership literature on principals, teachers, and coaches distanced both theorists and practitioners from determining *how* or *why* leadership takes place. Neumerski (2012) reiterated the problem as stemming from the literature's emphasis on *who* is in the leadership role. Additionally, studies as recent as 2015 (e.g., Lear, Godin, Werner, & Flamisch, 2015) still noted blank spots and sanctioned research to identify these relational constructs. They called for future research studies to "build an inventory of contextual specific instructional leadership practices" (Lear et al., 2015, p. 2524). Therefore, in an attempt to address these blank spots in leadership practice, my project focused more narrowly upon the narratives and explanations among selected principal leaders about the *hows* and *whys* in their understanding and use of collaborative practices to solve instructional problems at the school level.

Collaborative leadership practices occur within specific contexts or organizational structures and are affected by associated rules, expectations, and artifacts (Gronn, 2002; Hallinger & Heck, 1996; Spillane et al., 1999; Marks & Nance, 2007; Woods, Bennett, Harvey & Wise, 2004). Internal structures and influences affecting school leadership create a realm where some leaders use political shrewdness to achieve desired results. Coburn (2006) extended this argument by addressing perceptions of how problematic issues and local school level approaches to such complications. By using preexisting schema, local actors frame a problem, not only in a way that makes sense to

them, but also in a manner that "opens up and legitimizes certain avenues of action and closes off and delegitimizes others" (Coburn, 2006, p. 344). In addition, a normative perspective regarding those in formal authority positions allows greater access to resources and influence than others in less formal or subordinate positions (Coburn, 2006; Flessa, 2009; Lumby 2013). Consequently, given this benefit, formal leadership (i.e. the principal) can play a significant role in constructing the context for problematic issues as well as defining a specific set of strategies available for their resolution (Coburn, 2006; Flessa, 2009; Lumby 2013).

Thus school leaders who successfully contextualize a problem to gain cooperation are considered by Coburn (2006) to engage in a "deeply political act" (p. 374), a persuasive act, geared towards a shift in organizational ideology and an enlistment of participation in addressing problems. Micropolitical dynamics underly how leaders and followers engage in re-distributing power and authority (Crawford, 2012; Flessa, 2009; Lumby, 2013; Tian, Risku, & Collin, 2016; Supovitz & Tognatta, 2013). As an example, Flessa (2009) criticized the lack of attention, or even outright avoidance by scholars to the micro-political properties of distributing leadership authority and power. Flessa suggested that such an oversight may have misled those who found resistance when sharing leadership. Lumby (2013) warned that re-distributing or sharing leadership, as Coburn (2006) claimed, was political, not apolitical. Tian with others (2016) noted that research had failed to illuminate the uses of influence in those interactions. These notes about the micropolitics in collaborative approaches show the

same concerns as found in Leithwood and colleagues' (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995; Stager & Leithwood, 1989) initial research into school leaders' problem solving. Also, Spillane and colleagues (Brenninkmeyer & Spillane, 2008; Spillane et al., 1999; 2003; 2009) replicated Leithwood teams' findings that revealed elements of self-preservation among typical, non-expert, and novice school leaders as well as micropolitical contests in the contexts.

Grint (2005) corroborated concerns regarding leader influence among business leaders' problem-solving strategies. Just as Coburn (2006) proposed that school leaders are active in the social construct of problems, Grint (2005) offered a typology to address problem solving strategies used in organizational leadership. Grint used, as a conceptual foundation for his typology, work by Rittel and Weber's (1973) commentary on problem framing along with Etzioni's (1964) framework of Coercive, Calculative, and Normative authority types. Grint (2005) paired Rittel and Weber's (1973) classification of *wicked* and *tame* problems with Etzioni's (1964) authority types of normative and calculative, respectively. Grint (2005) described tame problems as routine, having a low level of uncertainty. He associated tame problems with a calculative or managerial type authority as these issues contained an element of déjà vu which normally required only an application of standard protocols. Conversely, wicked problems have no real solution but, at best, are destined to be "re-solved" (Rittel & Webber, 1973, p. 160). Grint (2005) defined wicked problems as intractable with the likelihood that any apparent solution ignites additional unintended problems. Head and Alford's (2015) work extended

approaches vis-à-vis the intractability of wicked problems and promoted an expanded view of collaboration through updated shared leadership modes. On this point, Etzioni (1964), Grint (2005), and Head and Alford (2015) all boosted the notion that collaborative interactions are a necessary element in addressing wicked problems. Consequently, Grint (2005) coupled a broader Leadership (rather than individual leader) approach to address wicked problems. Finally, Grint (2005) added the third problem type of *critical*, pairing it with a coercive, or Command, type of authority. Grint's characterization of critical problems as inherently urgent predicated the use of a Command style as any crisis requires immediate action.

Grint's (2005) framework rested on his claim that the basis for legitimate authority was "a persuasive rendition of the context and a persuasive display of the appropriate authority style" (p. 1477). In later commentary, Grint (2010b) used empirical evidence to posit that leaders, and to some degree the actors around them, are "addicted" to the Command style, a treatment of all situations as crises rather than more nuanced understanding of context or framing of complexities in a problem. Given this evidence, he made a claim that addiction also represented an allergy to Leadership as a shared and more responsive approach to complex contexts and wicked problems (p. 312). Wicked problems require lengthier, more involved, and a wider range of expertise available through collaborative processes. Consequently, such problems require leaders to admit that the answer does not lie within their individual skillset. Such leaders may anticipate opponents possibly viewing such acknowledgments, at the least, as powerlessness, and certainly, not the individual strength of a heroic leader (Fletcher, 2004). This implication

gives substance to Grint's (2010b) contention over evidence that both leaders and followers may demonstrate aversion to collective leadership. Grint (2010b) claimed that leaders may reframe problems as crises to exercise their preferences for exercising position power rather than involve others with relevant expertise in a collective approach to problem-solving.

Grint's (2005, 2010a, 2010b) analysis showed similar results for business leaders as the multiple studies of educational leaders (Coburn 2006; Flessa 2009; Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995; Lumby 2013; Stager & Leithwood, 1989). Along with calls for understanding school leaders' thinking about their leadership practices (Brenninkmeyer & Spillane, 2008; Harris, Moos, Moller, Robertson & Spillane, 2007; Neumerski, 2012; Sinnema, Le Fevre, Robinson, & Pope, 2013; Spillane et al. 1999; Spillane et al., 2009), I chose to investigate principals' narratives as they recollected their experiences in collaborative problem-solving with other school-based leadership.

In pursuit of more insights about principals' approach to problem-solving, I noted genuine disparities in knowledge about leadership practices at various levels of public education (i.e., elementary (K-5) versus secondary (6-12)). This distinction between the structures of elementary and secondary leadership became clear decades ago in research about school change (e.g. Firestone & Herriott, 1982). But, even 20 years later, Louis, Leithwood, Wahlstrom, and Anderson (2010) continued to report "substantial differences" (p. 17) in the extent to which specific leadership actions were executed by secondary school leadership when compared to their counterparts in the

primary grades. Additionally, Neumerski (2012) noted that historically, a preponderance of school leadership research was heavily skewed towards the primary grades. With respect to these points, my project focused on leaders at secondary public schools and those leaders' thoughts about their collaboration with other leadership inside their schools.

Statement of the Problem

Overwhelmingly, research on instructional leadership has not addressed the issue of *how* or *why* instructional leadership takes place in schools (Neumerski, 2012; Spillane et al., 1999, 2003). Some researchers have focused on leaders' interactions, both formal and informal (Crevani, Lindgren, & Packendorff, 2010; Dovey, Burdon, & Simpson, 2016; Harris, 2013; Marion, Christiansen, Klar, Schreiber, & Akif Erdener, 2016; Raelin, 2014; Timperley, 2005). What appears to be missing is an explanation of how and why formal leaders' practices occur in these interactions among other formal and informal leaders (Neumerski, 2012; Spillane, 2005). In particular, the focus of leadership practices may rest in the ways in which leaders approach problems, the contexts of those problems and the approaches to resolving those programs as a collective use of wisdom, or a heroic exercise of an individual leader's authority (Grint, 2005, 2010a, 2010b; Head & Alford, 2015; Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995; Stager & Leithwood, 1989).

Purpose of the Study

The purpose of this study was to investigate selected secondary principals' reflections about interactions over problematic instructional issues with other school-based instructional leaders in their recall of successful and unsuccessful experiences.

Significance of the Study

Despite decades of research in instructional leadership effectiveness, there is meager documentation of how and why school leaders practice their craft as they do (Leithwood & Steinbach, 1995; Neumerski, 2012; Spillane, 2005). This investigation into principal's recall of critical incidents of instructional leadership practices and reflections about their collaborative interactions with other school leadership may provide insight into this domain of leadership practice. Research from schools and business purports leaders' individualistic approaches to problems may prevent use of collective knowledge or responsibility for addressing wicked problems (Crawford, 2012; Grint, 2010a; Lumby 2013).

Definition of Key Terms

Distributed Leadership

Based in Spillane et al.'s (1999) seminal work, distributed leadership was defined as "the interaction of leaders, followers, and their situation in the execution of leadership tasks (Spillane et al., 1999).

Critical Incident Technique (CIT)

Flanagan (1954) designed Critical Incident Technique (CIT) methodology as a set of procedures containing five distinct steps "for collecting direct observations of human

behavior in such a way as to facilitate their potential usefulness in solving practical problems and developing broad psychological principles" (p. 1). However, Butterfield, Borgen, Amundson, and Maglio (2005) reported that the preponderance of studies using the CIT since 1987 all used a retrospective self-report format, which this study used, as opposed to direct observation of the identified behaviors.

Critical Incident

Flanagan (1954) originally determined that for incidents to be considered *critical,* they must "occur in a situation where the purpose or intent of the act seems fairly clear to the observer and where its consequences are sufficiently definite to leave little doubt concerning its effects" (p. 1). To clarify their designation even further, Angelides (2001) concluded that while these incidents may be common everyday events, the researcher gives them significance and therefore, they become critical. In other words, their "criticality depends on our interpretation" (p. 431).

Critical Problem

Based on his (2005) typology, Grint categorized these problems as emergencies, "presented as self-evident in nature, [and] encapsulating very little time for decision-making and action" (Grint, 2005, p. 1473).

Command Style

A decision-making style associated with authoritarianism as outlined in Grint's (2005) typology of problem solving.

Expert

Leithwood and Steinbach's (1995) applied this descriptor to school leaders based on their synthesis of work in a variety of fields, most notably that of cognitive science. Their findings concluded that *expert* is defined as the combination of a) the ownership of a broad skill set and knowledge base, b) the appropriate application of knowledge and skill in attaining goals, and c) an established history of goal attainment as judged by other "experts in the field" (Leithwood & Steinbach, 1995, p. 13).

Instructional Issues

Refers to school level matters such as employment of curriculum standards, assessment of instructional pedagogy, interpretation of data, coordination of staff development, and implementation of district, state, or federal mandates (Hallinger, 2011; Heck, 1992; Printy, Marks, & Bowers, 2009; Purkey & Smith, 1983). For this study, the term instructional issues specified a focus for participants as they recalled specific problem-solving situations.

Leadership Style

A type of authority used in the context of Grint's (2005) typology that corresponds to attaining the normative goals of a group or organization.

Managerial Style

A type of authority defined by Grint (2005) as using standard operating procedures to address the corresponding problem type.

Novice or Typical

These designations emerged in Leithwood and colleagues' analysis of principals' problem-solving (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995; Stager & Leithwood, 1989). Based on a series of experimental designs, the non-expert, novice, or typical school administrators' approaches to problem-solving and decision-making varied from expert approaches, and for the purpose of this study, indicated less consultation with others as well as more focus on the likely consequences for one's self (Leithwood & Steinbach, 1995, pp. 283-285). These self-centered concerns reflected Grint's (2005, 2010b) claims about addiction to Command.

Tame Problems

These are problem types that Grint (2005) defined as routine and having little uncertainty in terms of a response. According to Grint, leaders with tame problems can use pre-existing procedures or unilateral acts or processes.

Wicked Problems

These are problem types with no clear solution and a large degree of ambiguity in terms of a response. Grint (2005) further explained that any apparent solutions could easily give way to additional, but unanticipated, problems and required a collective shared leadership approach.

Theoretical Framework

This study utilized a constructivist, exploratory design (Clarke & Friese, 2007), thus, this orientation dominated the approach to its conceptualization (Pascale, 2011). The conceptualization involved two frameworks.

The first framework extended a means of investigating problem-solving strategies found within the participant's reflections; Grint's (2005) typology combining Rittel and Webber's (1973) work on problem framing with Etzioni's (1964) framework of authority.

The second framework offered a structure for locating participant's problem solving strategies along a continuum between those considered "expert" vs. "typical" problem solvers; Leithwood and Steinbach's (1995) research involving elementary, secondary and district level administrators provided evidence of problem-solving strategies used primarily by administrators considered to be experts in their field. Some of this work was followed-up and expanded by Spillane and colleagues (1999, 2003, 2009) in the promotion of distributed leadership.

Research Question

What is selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?

Overview of Design, Procedures, and Analysis

Spillane et al. (1999) argued for making "the 'black box' of leadership practice more transparent by revealing and analyzing how leaders think and practice" (p. 2). Therefore, to gain possible insights into how principals' reason and explain certain courses of action, Critical Incident Technique (CIT) (Flanagan, 1954) provided a method to elicit these deliberations. Woolsey (1986) credited CIT with being particularly adept at generating information for both the exploratory and model building stages. Chell (2004) further observed "that the analysis enables the researcher to relate context, strategy, and

outcomes, to look for repetitions, and thus to build up a picture of tactics for handling difficult situations" (p. 47). Since its inception in the mid-1900s, researchers have used CIT in organizational, industrial, and educational settings (Butterfield, Borgen, Amundson, & Maglio, 2005).

The specific focus of this study was selected principals' recall of critical instructional issues, both successful and unsuccessful, where they interacted with other school-based leadership. For each CIT study, the interviewer employed "empathetic listening and perception checking" to clarify and extend the descriptions (Woolsey, 1986, p. 248).

I used provisional coding (Miles, Huberman & Saldaña, 2020) as the starting point for my analysis. Provisional coding allows for a "start list" of codes based in prior research on two conceptual frameworks: (a) Grint's (2005, 2010a, 2010b) definitions of problem types and such types' required approaches, as well as (b)Leithwood and colleagues' (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995; Stager & Leithwood, 1989) early findings about principals' problem-solving as expanded by Spillane and collaborators (Brenninkmeyer & Spillane, 2008; Spillane et al., 1999; 2003; 2009). This double-constructed list provided a means of identifying and classifying information in a data-reduction step that I could then refine into more comprehensive coding and inquiry (Saldaña, 2009).

Limitations

By its nature as a reflective design based on participants' recall and perceptions, CIT provides only one perspective on the matters under study. Thus, CIT provides no

independent tests of the veracity of the participants' recall of events. The focus of the inquiry is on the participants' interpretation of their work, an appropriate response to the literature's call for exposing the *why* of leadership practices (Neumerski, 2012; Spillane et al., 1999). The small number of participants limits generalizability; yet, the procedures of CIT opens both the method and the topic of inquiry to replication.

Delimitations and Assumptions

Given the discursive nature of CIT, the participant pool focused upon individuals who provided a uniquely informative perspective to the current state of knowledge about instructional problem-solving, selected secondary public-school principals (Butterfield et al., 2005; Flanagan, 1954). The investigation began with participants solicited from those employed in a single state's public secondary schools. Focusing on this cohort gave reasonable certainty that principals would use a common vernacular when referring to the range of possible instructional issues, such as, statewide testing, curriculum standards, graduation requirements, and accountability measures. Finally, participants were limited to those who had been in the role of principal in their current school for at least three years and had been working two or more years with other school-based leadership (i.e. assistant principals, department chairs, lead teachers, or instructional coaches).

Organization of the Study

This research is presented in five chapters. Chapter 1 provides an overall description of the proposed investigation with important background information, a specific purpose for the study as well as the significance of the research. In addition, a list of definitions for key terms used throughout the research provided clarity. I then provided

the fundamental elements to the conceptual frameworks used in the investigation as well as the research question that guided this study. A statement of the limitations, delimitations, and assumptions ensure transparency during the study.

Chapter 2 provides relevant literature supporting the argument for study. Included is a concise summary of research regarding practices often found in effective principals' problem-solving, correlating research from the business realm regarding problem framing and relevant research concerning the unique context of secondary schools.

Chapter 3 presents the methodology used to carry out this study. It contains the selection of participants, instruments used, data collection procedures, and data analysis procedures.

Chapter 4 provides the results of the investigation using the theoretical frameworks provided by Leithwood and Steinbach (1995) and Grint (2005).

Chapter 5 provides a response to the research question based on the results on the investigation. It also provides suggestions for future practice as well as possibilities for further research.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

The proposed study rests on foundational knowledge that successful school-based leadership is a necessary condition for effective schools (Hallinger, 2003; Harris et al., 2007; Spillane, Halverson, & Diamond, 2004). Of specific importance to this research, I used a method, Critical Incident Technique , or CIT(Flanagan, 1954), which exposed the *how* and *why* of principals' collaborative interactions with other school-based leadership when dealing with problematic instructional issues (Neumerski, 2012; Spillane, Halverson, & Diamond, 1999).

The following review uncovers gaps in school leadership's knowledge base regarding explanations concerning interactions and practices among school-based leaders. The primary sources for literature included in this study were two digital bibliographic databases utilizing subscription services between the Clemson University Libraries, *Google Scholar,* and *Academic Search Complete.* Admittedly, I did not list all my terms and refinement strategies in the exploration of relevant research. However, I included an exemplary list of terms in Appendix A. Not all terms provided results germane in the final review of the literature. Terms may have produced redundant works or research ultimately deemed disadvantageous to the arguments constructed here. I limited my searches to the topics in leadership and specifically instructional leadership about a) problem-solving/decision making, b) school leadership, c) power/influence, d) micropolitics, and e) collaborative leadership.

The review focuses on problem solving strategies among leadership based on the works of Leithwood and Steinbach (1995) and Grint (2005), who provided insight about how leaders approach problem-solving. Leithwood and others' (Leithwood & Steinbach, 1995; Stager & Leithwood, 1989) work on school leaders' problem-solving was replicated by a series of teams working with Spillane (Brenninkmeyer & Spillane, 2008; Spillane, Diamond & Jita, 2003; Spillane, White, & Stephan, 2009) who pushed understanding about a collective approach to school problems and an associated distribution of leadership. The final section of this chapter provides an overview of how this literature yielded conceptual frameworks for this study.

Leaders to Leadership in Problem-Solving

Not surprisingly, decades of school leadership studies report on individuals with an official position, generally the principal, and focus on specific attributes of the role (Crawford, 2012; Harris, Moos, Moller, Robertson, & Spillane, 2007). Alternatively, recent work has begun to highlight the perspective of distributed leadership with attention to the social interplay among formal and informal roles at the school level (Mehra et al., 2006; Timperley, 2005). Yet much research continues to bypass group dynamics and focus primarily on the tasks and processes in which individual leaders, or groups of leaders, engage (Banks, McCauley, Gardner, & Guler, 2016; Flessa, 2009; Hitt & Tucker, 2016; Lumby, 2013; Neumerski, 2012, Spillane et al., 1999, 2003). As an alternative, this study will use the CIT methodology to elicit narratives from school principals regarding their interactions with other school-based leaders involving problematic instructional issues. The primary purpose of which is to investigate, through principals' reflective

narratives, what insights are available regarding principals' leadership practice (Spillane et al., 1999). This project aims to provide answers for this research question: *What are selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?* An answer to this question could address a *blank spot* in the literature on school leadership practices.

Wagner (1993) first used the term *blank spot* to refer to areas of research where investigators knew enough to ask questions but did not have enough information to answer those questions. In a seminal work, Spillane et al. (1999) employed the same term to describe educational leadership's *how* and *why* questions, particularly those questions pertaining to leadership interactions and associated deliberative and reflective processes. Spillane et al. (1999) argued that leadership practice was a construct of both interaction *and* situation. This construct echoes continually in subsequent research up until the present (Crevani et al., 2010; Gronn, 2002; Hallinger, 2011; Harris et al., 2007). Moreover, Spillane et al. (1999) established a conceptual framework. The purpose was to provide a method of gaining both the necessary "rich understanding of how leaders go about their work" and the causal aspect of "why leaders do and think what they do" (p. 10). Essentially, Spillane's research team was replicating a quest for understanding leaders' cognition which Leithwood and colleagues began in the late 1980s (Leithwood & Steinbach, 1995).

Principals' Problem-Solving Practices

Leithwood and Steinbach (1995) considered problem solving to be "the core of administration" (p. 38). Dissatisfied with leadership studies focusing on tasks and behaviors, they opined that such studies "were of limited practical value" (p. 8). Instead, Leithwood and Steinbach proposed a more cognitively based approach, arguing that one's actions are a projection of their thoughts. Spillane et al. (1999) continued the call for investigating the cognitive processes used in school-based decision making. Both commentaries (Leithwood & Steinbach, 1995; Spillane et al., 1999) made it clear that without investigating the processes behind why leaders made decisions or how they made those choices, it would be difficult to improve the effectiveness of school leadership.

Leithwood and Steinbach's (1995) study resulted in a delineation of practices used by principals considered experts as compared to more typical principals. To create this dichotomy, Leithwood's team asked principals to discuss the processes by which they would solve specific problems, as well as their reasoning for those actions. These problems included both structured problems, those with clear and familiar issues, and unstructured or "messy" (p. 39) problems with unclear goals or unanticipated obstacles. Leithwood and Steinbach found that leaders approached well-defined problems similarly between both typical and expert leaders. Neither group found them difficult to solve, only noting that some issues may take longer to solve than others. The specific means for addressing well-structured problems was the participant's past experiences with similar

issues (Leithwood & Steinbach, 1995). Principals had what they considered a standard operating procedure to solve the issue and engaged in far less collaboration and information gathering. Leithwood's research team noted that the few collaborative interactions tended to represent a means of fielding ideas to superiors to prevent "unanticipated consequences" (Leithwood & Steinbach, 1995, p. 60).

Of salience to this study was Leithwood and Steinbach's (1995) observations regarding the more effective, or expert, administrators' approach to solving unstructured problems. Unstructured problems were conceptualized as those with insufficient information, unclear outcomes, or unanticipated constraints to possible solutions (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995). While almost all principals in the study reported some level of collaboration, expert principals showed substantially higher levels of preparedness and collaboration than their more typical peers. The term "collegial rationality" (Leithwood & Steinbach, 1995, p. 96) was then applied to the interactive processes by which group members "use others to compensate for their own limitations" (p. 97). In doing so, problem solvers dispersed knowledge and enhanced various facets of the problem-solving experience based on their distinctive talents and background (Leithwood & Steinbach, 1995).

Spillane et al. (1999) replicated Leithwood and teams' work in a series of studies (Brenninkmeyer& Spillane, 2008; Spillane et al., 2009), and promoted the use of collaboration as a preferred means of problem-solving. They concluded that aggregated knowledge or the "collective cognitive properties" (Spillane et al., 1999, p. 25) found in

collaborative interactions increased the capacity for meaningful solutions.

Leithwood and Steinbach (1995) noted that while all the principals had preconceived ideas pertaining to a solution, expert principals were more explicit regarding their proposed solution, having spent more time becoming acquainted with the problem and gathering information relevant to its solution. Nevertheless, Leithwood and Steinbach (1995) found expert principals to be more open to the ideas of others. Conversely, typical principals tended to marginalize competing views by either blatantly arguing for their own ideas or limiting voices to those echoing the typical principals' preferences (Leithwood & Steinbach, 1995). Spillane and others (Brenninkmeyer & Spillane, 2008; Spillane et al., 2009) found similar results in that expert principals spent far more time gathering and analyzing data prior to formulating a solution than did their more typical peers.

An additional piece that bears weight in this study is Leithwood and Steinbach's (1995) finding that unstructured problems held a much higher level of anxiety for typical principals, who were more focused more on potential obstacles and restrictions than did their expert colleges. Typical principals were much more concerned with the ramifications of the scenario on themselves while the expert principals were more concerned with the effects on the school and student achievement (Leithwood and Steinbach, 1995). Other commentary (Brenninkmeyer & Spillane, 2008; Sinnema, Le Fevre, Robinson, & Pope, 2013; Spillane et al., 2009). These findings may inform our investigation as we seek to explore the narratives of principals involved in

collaboratively solving instructional issues.

Based on the work of Leithwood and Steinbach (1995), who promoted a similar understanding throughout their research, this study uses the phrases problem-solving and decision-making as interchangeable.

Business Leaders' Problem Solving

Like Leithwood and Steinbach's (1995) structured and unstructured problems, Rittel and Webber (1973) identified two basic types of problems: *tame* problems and *wicked* problems. In 2005, Grint added a third category, defined as *critical* problems. While building his heuristic typology, Grint (2005) associated these three distinctive problem types with forms of authority based in Etzioni's (1964) construct: Coercive, Calculative, and Normative.

Problems that Rittel and Webber (1973) considered tame had "all the information the problem-solver needs for understanding and solving the problem" (p. 161). They further delineated tame problems by stating that it was obvious "whether or not the problems have been solved" (p. 160). Tame problems provide "only a limited degree of uncertainty" (Grint, 2008; p. 169) and, while not always settled with a simple solution, Grint noted that leaders singly handled these problems because they most likely occurred previously. Rittel and Webber (1973) likened tame problems to those of the mathematical or scientific world which are "definable and separable" (p. 160) and, in fact, have discoverable solutions. When resolving tame problems, Grint's (2005) typology attributes a managerial style of leadership to these type problems, as they

primarily require rational skill sets and "an individual is likely to know how to deal with it" (p. 2).

Couched in crisis, Grint (2005) depicted critical problems as crises requiring an expedient and narrow response. "Here there is virtually no uncertainty about what needs to be done" (Grint, 2005; p. 1473), and that responsibility lies with *the* leader, or in Grint's (2005) terminology, the *Commander*. Grint (2005) associated critical problems with a coercive, or Command, type of power. Regarding Command, Grint's work conceptually (2005) and empirically (2010a, 2010b) showed that a single individual, by dint of authority and power assumed superiority, or a right, to provide a unilateral solution. Given the time constraints of crises, quick action could be paramount.

Rittel and Webber (1973) suggested more complexity with their term, *wicked problems*. They opined that wicked problems pose more nuances and more "elusive political judgment for resolution" (p. 160). Continuing to lament that wicked problems have no apparent solutions, Rittel and Webber (1973) argued that it was the identifiable need for planning that defined problems as "inherently wicked" (p. 160). Leithwood and Steinbach's (1995) pivotal work described these as unstructured problems that are inherently "messy" (p. 39), requiring significantly more consideration on the part of administration. Grint (2005) echoed these analyses in describing wicked problems as intractable and never-ending in that they generally give rise to unexpected consequences that, in turn, must be resolved. Head and Alford (2015) surmised, "There is no root cause of "wickedness" and no single best approach to tackling such problems" (p. 715). They

recommended a broader holistic approach and new models of sharing leadership based on expertise when addressing wicked problems. Grint (2005) linked a normative tactic, that is, a group operational approach, to addressing wicked problems due to the necessity of deliberative, inquiry-based interactions. Similarly, the term "collegial rationality" (p. 96) conceived by Leithwood and Steinbach (1995) to indicate collaborative strategies as a more effective approach to unstructured problems. Overall, their work on school leaders' problem-solving showed that more expert problem-solvers, and effective leaders, preferred a group, as opposed to a singular, individualistic process (Leithwood & Steinbach, 1995). Leithwood and Steinbach (1995) asserted that group interactions allowed the collective knowledge of the group to compensate for individual deficiencies in knowledge or practice. Grint (2005) succinctly stated that wicked problems necessitated collaborative processes, such as the ones inherent to distributed leadership, to "make any kind of progress" (p. 1473). Head and Alford (2015) acknowledged and agreed on the importance of collaborative efforts but with the stipulation that "collaboration alone does not necessarily address all aspects of the complexity challenges" (p. 722).

One conclusion from synthesizing these sources could be the following, as those insights (Grint, 2005; Head & Alford 2015; Leithwood & Steinbach, 1995; Rittel & Webber, 1973) pertain to school-level problem-solving as seen in:

- the summarily handled types of mundane and acute problems that unilateral or authoritative action address (Rittel & Webber, 1973, Grint,

2005; Leithwood and Steinbach, 1995).

- the “fires”, or critical issues, that principals or other leadership are constantly called upon to extinguish in a decisive, expedient, and commanding fashion (Grint, 2005).
- the wicked type, requiring interactions and deliberative problem-solving practice (Grint, 2005; Head & Alford 2015; Leithwood & Steinbach, 1995; Rittel & Webber, 1973).

How leaders determine what model to implement for any circumstance is an important point to consider in the investigation of their problem-solving experiences. Grint (2010a) added the caveat that inclinations in leadership practices were “archetypal tendencies not iron laws but nevertheless they remain extraordinarily difficult to displace” (p. 170).

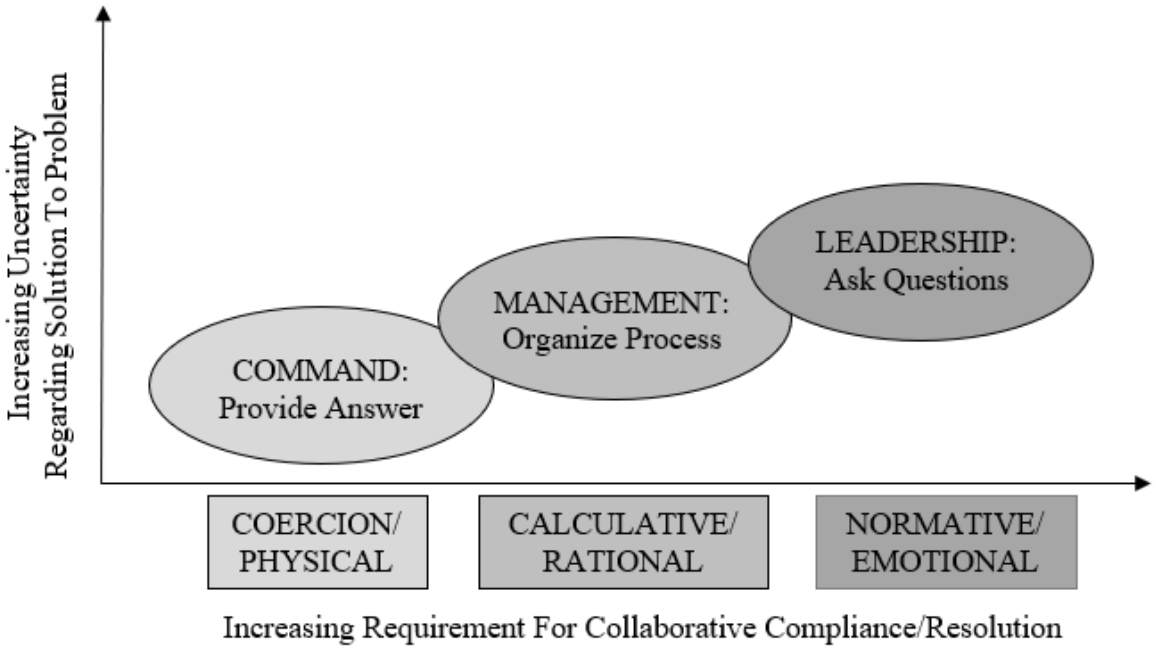

Figure 2.1 shows Grint’s theorized continuum traveled based on the uncertainty

of solutions (vertical) and collaborative need (horizontal).

Figure 2.1. Typology of Problem-Solving Styles. From "Wicked Problems and Clumsy Solutions: The Role of Leadership" by K. Grint, 2008, In S. Brookes & K. Grint (Eds.) *The New Public Leadership Challenge,* pp. 169–186. Copyright 2008 by Palgrave Macmillan, See Appendix B regarding permission to reprint.

The trajectory provides evidence of a positive correlation between uncertainty – in the leader's mind – regarding a solution, and the demand for a collaboratively based solution.

Grint (2005) remarked that as the level of ambiguity in a solution rises, it forces decision–makers to recognize the normative nature of their power, proportionally increasing the difficulty of their task, "especially with cultures that associate leadership with the effective and efficient resolution of problems" (p. 1478). When leaders confess that they do not have a solution (either literally or by the act of engaging others to help solve an issue), they run the risk of appearing indecisive (Grint, 2005). Earlier, Fletcher (2004) addressed this issue by equating the relational processes needed to solve difficult problems with femininity. According to Fletcher (2004), it is the masculine traits (e.g., assertiveness, individualism) and not the feminine traits (e.g., inquiry skills, collaboration) that are a priority in the business world in terms of leadership. Fletcher (2004) decried the notion that enacting a "power with" (p. 653) model, constituted in part by the acknowledged need for input and interdependence, "is more likely to be associated incorrectly with powerlessness rather than with a new, more adaptive exercise of power" (p. 163). If Fletcher's assertion holds true, perhaps most leaders will not knowingly don a persona of powerlessness through eliciting others' expertise.

Even though wicked problems may require a form of Leadership which involves collaborative approaches, and of course, the more who are involved, the more deliberative and lengthier the processes. Instead, those with influence often pursue alternative and more individualistic and authoritarian practices (i.e. Command or Management), owing to the fractious nature of Leadership's implementation. This is what Grint (2005, 2008, 2010b) defines as the irony of Leadership: "it is often avoided where it might seem most necessary" (2008, p. 173). Grint (2010b) bolstered this assertion by stating that most organizations may seem "allergic" (p. 312) to a collective Leadership style and in its place appear "addicted" to a Command style of leadership (p. 312).

Grint (2008) observed that leaders who have very few crises, because they are good at what they do, often go unnoticed. Meanwhile, those who excel at handling emergencies receive accolades due to their prowess in a time of crisis. Grint (2008) added that it becomes apparent that those who prefer a Command style and do well at handling critical problems "soon learn to seek out (or represent situations as) crises" (p. 171). Grint (2005, 2008) noted that among all decision-making styles, Manager, Command, or Leadership, one of the early steps leaders take is to reframing the problem to justify leadership practices (Grint 2008). Grint (2010a, 2010b) theorized that a cultural or contextual compulsion, an addiction, may be a quick temporary solution, even to Wicked problems that require "long term collaborative engagement" (2010b, p. 310). This inclination may be why Fletcher (2004) argued that any shift from heroic to

postheroic leadership concepts "is even more profound and difficult to achieve than the leadership literature would have us believe…" (p. 650).

Lines of research about leaders' problem-solving, both in the business and educational realm, have demonstrated that the differences in approaches to problems, although apparently associated with differentiation of leadership styles, might also be more aligned with power and culture than the true nature of the problem. Given the disconnect between the features of the problem, and the seemingly power or culture-based framing of practices to resolving complicated problems, a missing piece of the literature should be explored empirically concerning secondary school leaders.

Throughout the remainder of this study, I use the terms problem-solving and decision-making interchangeably. I chose this approach based in Grint's (2005) work which followed the same proposition.

Secondary School Differences

The discussion of the micropolitical culture may be even more pertinent to school leadership when considering the secondary level (Firestone & Herriott, 1982; Gedik & Bellibas, 2015; Meyer & Macmillan, 2011). Departmentalization, for instance, indicates content expertise, setting up competitive expert authorities (i.e. department chairs vs. principals) (French & Raven, 1959). A greater dissemination of power based on these factors or others, whether perceived or real, makes effectively navigating the climate of a secondary school "key to whether a principal is deemed successful or not" (Meyer & Macmillan, 2011, p. 23).

The distinction between the construction of elementary and secondary leadership became clear decades ago in the school change research, with commentary proposing that the elements constitutive of effective schools were "significantly less prevalent at the secondary level than in the elementary schools" (Firestone & Herriott, 1982, p. 51). They also concluded that principals at the secondary level had a more difficult time maintaining levels of influence, not based on personal characteristics, but as a product of "the basic aspects of the structure of a secondary school" (Firestone & Herriott, 1982, p. 51).

Leithwood and Steinbach (1995) also noted that while there were few differences noted in the categories of unstructured problems, secondary administrators perceived 40% more of their problems as unstructured when compared to their elementary counterparts. These unstructured problems are of the ilk requiring more thought, more information, more strategy, and more collaboration to provide effective solutions (Leithwood & Steinbach, 1995).

Given the accumulation of two decades of research, Louis, Leithwood, Wahlstrom, and Anderson (2010) pointed to "substantial differences" (p. 17) in the extent to which specific leadership actions were performed by formal leaders at the secondary level as opposed to the elementary level. Continuing their appraisal of the evidence, Louis et al. (2010) lamented that "actual differences between elementary and secondary schools nationwide may be even wider than those we have discovered" (p. 92). Even now, scholarship still calls for a more thorough understanding of the differences between levels. Gedik and Bellibas (2015) made an appeal for research to acknowledge these

differences as a requirement for providing "the most effective formative feedback" possible (p. 103).

Regardless of the clear notion that secondary and elementary schools do not operate similarly, a preponderance of the scholarship remains focused on primary grades (Firestone & Herriott, 1982; Gedik & Bellibas, 2015; Neumerski, 2012). In answer to these points, this research focused on leaders at secondary public schools and those leaders' deliberations about their collaboration with other leadership inside their schools.

Leaders, Leadership, & Problem-solving

Leithwood and Steinbach's (1995) work regarding the decision-making processes of school administrators brought several assertions to light regarding the problem-solving processes used by expert principals verses their more typical peers. Although Spillane et al. (1999) critiqued Leithwood and Steinbach's (1995) work for retaining an individualistic focus on the principal, Spillane went on to engage in additional studies of leadership activity which advanced Leithwood and Steinbach's (1995) scholarship with comparable findings on what more expert principals do and why (Brenninkmeyer & Spillane, 2008; Spillane et al., 2009).

Both sets of commentary point to leaders with more expertise spending significantly more time analyzing and investigating unstructured problems (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995; Spillane et al., 2009). Unstructured problems are of the sort that provide little information, imprecise goals, and unforeseen limitations to any solutions that may arise (Leithwood & Steinbach, 1995). This set of findings about educational leaders aligns to Grint's (2005) promotion of

Leadership as the collaborative style most needed to address wicked problems. Additionally, this cumulative body of work found that more typical principals have a higher concern for self, meaning typical principals are more anxious over the consequences of the solution for themselves, taking a self-preservation stance in the process (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995; Spillane et al., 2009). Such a finding mirrors Grint's (2005) theory about the types of leadership in that typical principals' tendency toward self-preservation mirrors Grint's (2010b) phrasing of addiction to Command, or a more coercive style of leadership. Unstructured (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995; Spillane et al., 2009) or wicked (Grint 2005) problems are frightening because they have no real solution and the typical images of leaders prevents them from revealing a lack of definitive answers (Grint, 2005; Leithwood & Steinbach 1995). Therefore, principals with less expertise may chose a more familiar route such as managing the issue as a tame problem or treating it as a crisis and moving into command mode.

It is important to note that neither Leithwood and Steinbach's (1995) study nor Grint's (2005) research differentiates between the terms problem-solving and decision-making. Consequently, I used the same interchangeable application of these terms in this study. These two sets of findings seem to share some similarities in light of the complexities of issues where leadership seems necessary. For this study, the question was to uncover the ways that secondary principals claimed to address core problems of education, instructional issues, with other school-based instructional leaders and experts

in their schools. Would these similar findings from two different realms of leadership, business and education, be revealed in secondary principals' explanations of their approach to the dilemmas they faced in instructional leadership? Thus, I designed the research question as follows: *What are selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?*

Chapter Summary

Chapter 2 covered relevant research pertaining to the investigation of principal's descriptions of collaborative interactions with other school-based leadership and discussed what gaps remain. First, the chapter provided arguments from the work of Leithwood and colleagues as it applies to practices used by those considered to be expert problem solvers in the field of education. Next, the review continued by providing a problem-solving typology promoted by Grint (2005), including the case pertaining to leaders' problem framing tendencies. In addition, scholarship (Firestone & Herriott, 1982, Gedik & Bellibas, 2015; Louis et al., 2010) identified secondary leadership as an understudied focus, particularly concerning instructional leadership. The final section provided a synthesis of the problem-solving research used to conceptualize this study.

CHAPTER THREE

METHODOLOGY

Introduction

This chapter provides a detailed summary of the methods used to answer the research question: *What are selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?* To provide a logical and sequential structure, I divided the chapter into the following components: a) design of the study, b) instrumentation, c) selection of the participants, d) data collection, e) data analysis, and f) delimitations and limitations of the study.

Design of the Study: Critical Incident Technique

Spillane et al. (1999) argued for making "the 'black box' of leadership practice more transparent by revealing and analyzing how leaders think and practice" (p. 2). Therefore, to gain possible insights into how principals reason and explain certain courses of action within their collaborations with other school-based leadership, Critical Incident Technique (CIT) (Flanagan, 1954) provided a method to elicit these narratives.

Rooted in military studies during World War II (Flanagan, 1954), the use of CIT has infiltrated research in multiple settings and appears well established as a research protocol (Butterfield et al., 2005). Although Flanagan (1954) acknowledged that self-reported narratives could be used, the seminal work focused almost exclusively on the collection of data through the direct reports of expert observers (Butterfield et al., 2005). However, Butterfield et al. (2005) speculated that expense and labor intensiveness of this type of report may have contributed to the scarcity of studies using Flanagan's (1954)

preferred protocols. Nonetheless, CIT has become a widely used investigative tool for exploratory research (Chell, 2004; Woolsey, 1986) and has application across a broad spectrum of disciplines (Butterfield et al., 2005, 2009). Given a gap in understanding the how and why of principals' approach to addressing school problems, CIT could aid in closing the breach and building knowledge concerning principals' strategies and tactics.

Specifically, for this study, each participant provided two different narratives, one they reported as successful and another they saw as unsuccessful, where they interacted with other school-based personnel. The principals chose scenarios whose collaborators were a mixture of assistant principals, school counselors, and instructional coaches. Some principals appeared to have given more prior thought to which episodes they chose. A second source of data came from field notes which I completed as soon as I left each interview location. Member checking was also employed to provide participants the opportunity to review their transcripts for accuracy and correct, delete, or add information as they saw fit (Tracy, 2010).

Instrumentation

This section describes the instruments used in the collection of data for investigating the problem-solving recollections of secondary principals. I begin with a Statement of Reflexivity meant to enhance the validity of this study (Creswell, 2003; Tracy, 2010). Since qualitative research views the researcher as a vital component in the collection of data (Pascale, 2011; Tracy 2010), it is important to recognize my own proclivities within the context. In addition, I have provided a discussion of the interview process and questions used to gain participants' recollections of problem-solving interactions involving other school-based leadership.

Reflexivity

As stated by Creswell (2003), "the researcher is the key instrument of data collection; data are collected as words through interviewing, participant observation, and/or qualitative open-ended questions" (p. 16). To provide transparency during this research, I am providing a Statement of Reflexivity to reveal my prejudices and biases which I attempt to set aside for my interactions with participants during data collection. Also, I expose my experiences and tendencies for interpretations during the data analysis portion of the project.

My primary purpose for undertaking this study was an intellectual and professional curiosity to learn more about how and why school principals make the decisions they make. In addition to my classroom teaching experience, my work experience entails over 19 years with official school, district, and state levels of educational administration. I have held administrative positions covering assistant principal, principal, district level and state level roles. However, all my public-school experience was in the state of South Carolina.

I refer to my positions as *administrative* since I have no recollection of being referred to as anything other than the principal or the administrator when applying for or holding those positions. The areas of certification listed on my South Carolina credentials are Principal, Supervisor, and Superintendent. While the exam I took to gain those certifications was labeled Educational Leadership, it also specified the subcategories as Administration and Supervision. So, while the notion of leadership was there, that term was not part of the professional vocabulary used during most of my years in those positions. Inherently, I knew I was considered the leader of a school but more in the sense

of being the one ultimately responsible for what happened within those walls, which is a level of positional authority and accountability.

Twice during these 19 years, my career path took a precipitous turn from the path I originally anticipated, that of moving through the hierarchy into the superintendency. Those unexpected turns involved professional decisions among others within a district and school. While such scenarios play out in administrative offices within education or other fields, these moments are painful personally and professionally (Ackerman & Maslin-Ostrowski, 2002, 2004; Lindle, 2004). Even now, I often think back to scenarios of both successes and unanticipated results. I recall interactions with colleagues, both pleasant and puzzling. Many of the moments I recall involved deferring to colleagues' opinions because I assumed that they were closer to the issues and likely had more insight to plausible resolutions, even if their recommendations created my own reservations about their approaches. Most often, those involved in these moments approved of such a decision-making process. Occasionally though, I had to defend another person's decision, which I had doubted originally. My assumptions about deferring to the professional closest to the issue, that is, the individual who should have the most information and ability to predict an insightful resolution, were not completely accurate and I felt consequences because of my deference. I can use my experiences about assumptions and professional expertise as a cautionary pause in working through all phases of this project.

The focus with which I undertake this study's phases, particularly during data collection and interpretation, is to pay careful attention to the words, tone, and body language used by participants. I tried to set aside my inclinations, remaining completely

focused on the participants and their stories. With concentration and a spotlight on their perceptions and discernment about the two leadership incidents relayed, participants' stories can contribute deeper knowledge about why educational leaders practice in the manner they do. While my years in administrative roles may help me empathize with the interviewees regarding difficult situations or theorize what might have gone wrong, or right, my goal is to collect and analyze data regarding *the participants'* experiences, without overlaying my assumptions.

To help me maintain the attention on their experiences in their narratives, I created a field notes form (see Appendix E) to use immediately after each interview session. I also used it as I reviewed the transcripts, before and after submitting the transcript to each participant.

Interviews

Participants responded to semi-structured, open-ended questions regarding two different problem-solving experiences with other school-based leadership. Based on Flanigan's (1954) CIT recommendations, I composed start-questions as recall stimulation. Probes, or follow-up questions, came from a combination of the design recommendations, and the synthesis of two sources of studies focused on leaders' problem-solving approaches from the business literature (Grint, 2005) and schools (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995). See Appendix D for the interview protocol.

As suggested for CIT and other emergent designs (Butterfield et al., 2009; Kvale & Brinkmann, 2010; Marshall & Rossman, 2015), I used face-to-face interviews to establish rapport and expand my understanding of participants' stories with their body

language and voice inflections. Both the CIT method combined with a face-to-face interview allowed the probing questions "needed [to] yield rich data that would likely not be obtained if other methods were used" (Butterfield et al., 2009, p. 269). This investigation sought narratives that answered the research question: What are selected secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues? During the interview, I used empathetic listening and perception checking as needed to develop and interject additional questions for follow-up and/or clarification (Woolsey, 1986).

The principals did not receive the entire protocol before their interviews. Instead, participants received two semi-structured, open-ended, CIT-based (Flanagan, 1954) prompts:

(a) Tell me about a time when you worked with other leadership in your school to resolve an issue and you felt it was resolved successfully, and

(b) Tell me about a time when you worked with other leadership in your school to resolve an issue and you felt it was unsuccessfully resolved.

Selection of Participants

Data collection focused on a selected group of secondary-level principals in a single state, South Carolina. In order to be considered for participation, candidates were required to meet three criteria: (a) appointed as principal in a setting serving some combination of grades 6-12, (b) tenure as principal in the same setting for a minimum of three years, and (c) experience with school-based leadership for a minimum of two years. As this project was a non-funded investigation, financial and temporal constraints geographically restricted in-person travel by a 90-minute driving radius.

I used a two-phase strategy to identify potential candidates. Phase one used public information obtained from the South Carolina Department of Education - SCDOE (2018a) and the National Center for Educational Statistics (NCES, 2018). The 90-mile driving radius offered 16 South Carolina public school districts from which I selected participants. Among these 16 school districts, I identified 64 secondary schools containing a grouping of grades 6-12.

I then considered school size and geographic locale to further categorize these 64 schools. Initially, I categorized schools as small (less than 600), medium (between 600 and 1200), or large (over 1200) based on student population. Next, using NCES (2018) data, I identified schools within NCES-defined categories of rural, suburban, town, or city. With two criteria, I arranged the 64 school into 12 categories.

My final selection requirement set a minimum of three years of experience as principal at the current site. The SCDOE (2018a) provided data regarding each building principal's years of service as principal at their current site. After application of this third requirement, I had a pool of 43 possible candidates from the 16 school districts. Due to my extensive career in public high schools across South Carolina, as well as my concerns about my researcher-boundaries (Tracy, 2010) in ensuring validity, I excluded six principals from this final cohort because I had either worked extensively or built strong personal relationships with them (Chavez, 2008; van Heugten, 2004). Furthermore, I also reviewed each school's website prior to any contact to verify the SCDOE (2018a) information. During this process I discovered that five principals were no longer at the locations reported in the 2018-2019 SCDOE (2018a) data. This reduced the pool of

possible candidates to 32. At this point in the selection process, Table 3.1 represents how of the 12 contextual categories, 10 still had at least one potential candidate, with the exceptions being Small/Suburb and Medium/City, both of which are rare in South Carolina.

Table 3.1

Potential Candidates Categorized by School Size and Geographic Locale

	Size		
Locale	Small	Medium	Large
Rural	8	8	1
Suburb	0	5	2
Town	4	1	1
City	1	0	1

As an exploratory design, I used an open sampling strategy (Strauss & Corbin, 1998). Open sampling allows for a systematic approach, such as a random selection, to be employed for participant selection. Creswell (2003) also supported random sampling as a means of providing "an equal probability of being selected" (p. 156). Phase 2 of the recruitment process involved generating a random list of schools within each of the 10 categories. After randomizing each category, I contacted the principal of the first school in each category via email with an IRB-approved (Appendix F) invitation to participate (Appendix C). The SCDOE (2018a) posts school email addresses as public information. After sending the initial round of emails, I waited 10 business days for principals to reply. I then began, a new round of email invitations to the next principal, in each category. Candidates who replied with interest received a follow-up phone call or email providing any clarification needed regarding the project. Additionally, I used this opportunity to

schedule an interview appointment at a location of the individual principal's choosing.

In all, 56 emails and 16 phone calls resulted in eight potential candidates agreeing to an interview, seven high school principals and one middle school principal. However, after several additional emails and phone messages, I was unable to coordinate an interview with the middle school principal. Additionally, two of the high school principals worked in the same district, Matthew (pseudonym) being one. During his interview, Matthew reported that he and his fellow principal discussed my study at an earlier district board meeting. According to Matthew, the other principal in the district decided not to participate as that principal felt he would only provide duplicate scenarios. This left a pool consisting of six high school principals, one female and five males.

Strauss and Corbin (1998) identified three criteria for determining when to terminate sampling based on saturation: (a) original and pertinent data ceases to emerge, (b) a well-developed set of categories parsing the uniqueness among properties, and (c) established and validated relationships among categories. Strauss and Corbin (1998) never defined saturation as a specific number of participants. In this study, my criteria for selection, and the actions of two potential participants formed a natural termination to the selection process. The study continued with six high school principals, which effectively limited the definition of "selected South Carolina secondary principals" to grades 9 through 12, rather than the more expansive policy-based definition of 6th through 12th grades.

Data Collection: Interviews

Principals selected a place and time to meet to allow for their comfort and confidentiality when speaking. All principals chose to meet at their respective schools. The participants and I scheduled three meetings after school hours, including one on a Sunday afternoon, and three other appointments during the school day. I requested a 90-minute appointment for each interview, although none exceed 75 minutes. I began each interview using the script approved by the Clemson University IRB (Appendices D and F). That script included a review of the purpose of the study, the participant's role, and an opportunity to address any questions regarding the research process (Appendix D). I then asked principals for permission to record the interview with all six principals agreeing. The final sections of the script included an explanation about confidentiality and offered an opportunity for the principals to select pseudonyms for themselves, their school, and their school district. All principals opted for my provision of necessary pseudonyms.

During the interview, principals chose the scenario with which they wanted to begin the interview, either their successful or their unsuccessful instructional issue. In addition to letting them begin their recall of their chosen critical incident, I employed empathetic listening and perception checking to ensure clarity of the discussion (Marshall & Rossman, 2015; Woolsey, 1986). I used probing questions (Appendix D) as needed to extend the narrative and to determine whether the participant felt that he or she completely detailed their require of the incident. Upon the conclusion of each interview, I used a protocol for field notes (Appendix E) that elicited my own feelings about the interview or any unusual circumstances or events that may have affected the data collection process (Miles, Huberman, & Saldaña, 2020).

After I completed all interviews, each of the participants received an electronic transcript. Participants reviewed their transcripts and edited their narratives as needed with corrections, additions, or deletions. This step served to confirm the capturing of the participants' narratives and as a means of increasing the veracity of this study (Marshall & Rossman, 2015; Miles et al., 2020; Tracy, 2010).

All six principals provided a confirmed transcript via email, including brief comments regarding alterations made to the transcript, if any. None of the changes pertained to the problem-solving incidents and required no additional clarification on my part. I began data analysis with the initial step of articulating the categories (Flanagan, 1954; Saldaña, 2009) by applying the provisional coding (Miles et al., 2020) from the literature synthesis about problem-solving and leadership (Grint, 2005, 2008, 2010a, 2010b; Leithwood & Steinbach 1995).

Data Analysis

When using the Critical Incident Technique, the purpose of data analysis is to provide a "detailed, comprehensive, and valid description of the activity studied" (Woolsey, 1986, p. 248). Butterfield et al. (2005) further refined the definition to include "a categorization scheme that summarizes and describes the data in a useful manner" (p. 479). Creswell (2003) describes it rather simply as "making sense out of text and image data" (p. 190).

One of the more challenging facets in the investigative process is the analysis of these critical incidents to produce codes, categories, or themes (Creswell, 2007; Saldaña, 2009). In Creswell's (2003) opinion, the ideal situation entailed having a set of generic protocols framing the more specific analysis processes. For this study, the literature

synthesis about leaders' problem-solving approaches in both business (Grint, 2005, 2008, 2010a, 2010b) and in education (Leithwood & Steinbach, 1995) establish a framework for analysis. I used the Creswell (2003) sequence as a general structure for this phase of the investigation: (a) organize data for analysis, (b) immerse oneself in the data, (c) analyze data with coding, (d) generate themes and/or categories, (e) communicate findings of the analysis, and (f) interpret findings (Creswell, 2003, pp. 191-195). Miles, Huberman and Saldaña (2020) provided the more specific processes needed for coding which are critical to both steps 3 and 4 among Creswell's (2003) list.

For transcriptions, I turned to an online service. This process was both a cost, and time efficient method. After the transcription was complete, each participant's document required approximately two to three hours of my time to compare the transcription against the audio file. This allowed for corrections due to soft or faint voice audio, use of colloquial phrases, or quintessential regional accents and professional jargon (McLellan, MacQueen, & Neidig, 2003; Thomas, 2006; White, Oelke, & Friesen, 2012). The benefit of my interaction with verifying the transcripts provided another form of immersion into the participants' words and perspectives (Bott & Tourish, 2016; Creswell, 2007). The advantage in this phase of data management required that I listened intently to the audio while carefully reading each participant's transcript. The listening-reading process gave me a different kind of attention to their narratives, unlike the busy-ness within the moments of any interview, which included listening as well as noting follow-up questions, thinking of how to phrase probing questions, and observing body language or environmental elements that might be recorded later in field notes (Matheson, 2007). The interaction between transcript and audio provided a deeper embeddedness in the

narratives. Unlike the post-interview field notes which were a transient capture of impressions, and perhaps some immediate assumptions, my making field notes within the process of the audio and transcription verification provided an additional source of data for the analysis process (Miles, Huberman & Saldaña, 2020; Saldaña, 2009, 2015).

Once I was confident the content of the transcript matched the interview's audio as closely as possible, I sent the verified transcript document to each participant as an email attachment. Of the six transcripts sent to participants, four returned them unaltered and the other two struck some information. However, in those two cases the deleted information was determined to be irrelevant to the problem-solving incident and of a more personal nature. One principal deleted information regarding future career plans and the second struck remarks that, in the individual's view, could be misconstrued as stereotyping students. These kinds of edits on the transcript formed the completion of the member-check and served as another step in insuring the veracity of this study (Marshall & Rossman, 2015; Miles et al., 2020; Tracy, 2010).

As participants approved and returned transcripts, I began the process of analysis by simply reading each transcript multiple times (Saldaña, 2009, 2015). The cyclical readings of these transcripts made me as familiar as possible with the words and context of each situation (Creswell, 2007; Matheson, 2007; Miles et al., 2020). This process began after the first interview and continued simultaneously with consecutive interviews. This immersive process (Bott & Tourish, 2016; Creswell, 2007) also allowed for preliminary analysis of the narratives concurrent with the data collection and field notation process (Miles et al., 2020).

After receiving all the member-checked transcripts, I used the synthetic

framework of a provisional coding scheme generated from the literature review. I created the *a priori* "start list" of codes "based on what preparatory investigation suggests might appear in the data before they are collected and analyzed" (Miles et al., 2020, p. 69). Provisional codes may be generated from a variety of sources such as literature reviews, prior research, or the theoretical framework of the study (Saldaña, 2009). More generally, Saldaña (2009; 2015) defined a code as "a word or short phrase that symbolically assigns a summative, salient, essence-capturing and/or evocative attribute for a portion of language-based or visual data" (p. 3). Miles et al. (2020) supported this method as suitable for research seeking to build on or substantiate prior investigations, which included the purposes of my study.

Accordingly, Saldaña (2009) contended that the coding, or categorization, of data is primarily "an interpretive act" (p. 4). Once the initial phase is complete, Saldaña (2009 recommended that such categories provide a foundation for more comprehensive coding and inquiry. Transcripts of narrative responses to open-ended interview questions provide the data corpus and are particularly suited for this type coding (Saldaña, 2009).

Both Grint's (2005) typology and Leithwood and Steinbach's (1995) Expert vs Typical problem-solving dichotomy provided a frame of reference from which I began analyzing and categorizing the data collected. Grint's (2005) typology combined Rittel and Webber's (1973) work on problem framing with Etzioni's (1964) framework of authority. Leithwood and Steinbach (1995) codified a method of identifying principals' problem-solving efforts as either expert or typical that Spillane and colleagues replicated (Brenninkmeyer & Spillane, 2008; Spillane et al., 2009).

Using this synthesis as a basis for the provisional code list (Table 3.2), I selected

one transcript and began applying codes to phrases or "chunks" of text. Each transcript underwent this same coding process separately.

Table 3.2

A Priori Provisional Codes

Attribute	*Code Used for Typical Approach*	*Code Used for Expert Approach*
Focus	Self	Student Success
Leadership Style	Command/Authoritarian	Collaborative/Leadership as collective
Goal	Conflict Avoidance	Enhance Teaching & Learning
Strategy	Egocentric Assumptions	Data Based Investigations
Strategy	Telling not involving others	Participation Elicited for Decision Making

Note. The provisional codes listed here were adapted from the work of Leithwood and Steinbach (1995) and Grint (2005).

Delimitations and Limitations

Due to the state-based nature of educational policy and the focus of the student on approaches to principals' problem-solving of instructional issues, I limited my study to South Carolina's public schools. Focusing on this cohort gave reasonable certainty that principals would use a common vernacular when referring to potential instructional issues such as, statewide testing, curriculum standards, or accountability measures. Also, I limited selection of participants within an approximate 90-minute driving radius as face-to-face interactions were ultimately desirous for the collection of data (Butterfield et al., 2009). Finally, participants were limited to those who had been in the role of principal in their current school for at least three years as well as working two or more years with other school-based leadership in secondary schools (i.e. assistant principals, department chairs, lead teachers, etc.). Ultimately, availability of participants limited the study to six individuals serving as high school principals, that is, encompassing grades 9

through 12, and not the lower end of secondary grades, middle schools covering grades 6th through 8th grades.

Principals' thinking was the focus of this investigation. The Critical Incident Technique (CIT) originated as a means of investigating cognitive understanding from an individual perspective (Flanagan, 1954). Therefore, I did not seek factual accuracy, corroborating evidence, or counter-perspectives.

Interview narratives could be disingenuous in that the participant may have responded in a manner (s)he now believed to be more appropriate than their thought process during the incident or additionally (Kvale & Brinkmann, 2010). Even though I supplied principals with open-ended prompts several weeks in advance, the six participants in this study, varied in their degree of preparation. I included every narrative in the final analysis.

Chapter Summary

This chapter began with an introduction to the specific methodology and theoretical reasoning for use of the Critical Incident Technique. Next, the section regarding instrumentation provided both a rich description of my own experiences in a statement of reflexivity with a justification of the interview process used to collect the data. The following section provided a detailed account of how participants were recruited and selection for participation in the study. The next section contained the description of the interview protocols used to elicit the principal narratives. This was followed by a thorough discussion of the data analyzation tactics, including a table specifying provisional codes used in the data analysis. Finally, a discussion of the delimitations and limitations provided the reasoning for the boundaries placed on the

selection process and the resulting limitations of the study.

CHAPTER FOUR

RESULTS

Introduction

This investigating sought to answer the question: *What are selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?* To provide possible insights into the thinking of secondary public-school principals, this study used the Critical Incident Technique – CIT (Flanagan, 1954) to elicit selected secondary principals' narratives regarding their examples of successful and unsuccessful problem-solving experiences. Based on CIT techniques, I used open-ended questions and follow-up probes to obtain six high school principals' recollections of instances where they worked with other school-based leadership to solve instructional problems: one with a successful resolution and one with an unsuccessful resolution. I audio recorded these face-to-face interviews and used an online transcription service. Once I received the transcribed audio files, I sent participants an electronic copy to be examined for accuracy, which is a member-check form of validation (Miles, Huberman, & Saldaña, 2020). In this member-check process, participants used the opportunity to review their narratives and correct, add, or delete any information they deemed necessary. I began data analysis as each participant returned his/her approved transcript through the basic process of immersion into the data (Creswell, 2003). By reading and re-reading each transcript, I gained insight into what commonalities might exist between the principals' narratives. Additionally, I was able to discern the effectiveness of my interview techniques, including the usefulness of the probing questions. Also, I employed my field notes as a second source of data and

incorporated such into the analysis process. I used provisional codes (Miles et al., 2020) as a means of discovery during the first phase of coding. A second phase of coding using Pattern Coding provided a means of assembling the first-round findings into categories or themes (Miles et al., 2020).

Chapter 4 is divided into six sections. The first section will describe the participants and provide demographic information on their specific schools. The second section will provide a summary of each of the participants' narrative. The third section will present the findings from the data analysis, divided by theme and sub-category as well as examples supporting each theme and sub-category. The sixth section will provide a summary of the entire chapter.

Context of Secondary Schools

This study focused on selected secondary school principals' recall of their engagement in collaborative resolutions for problematic instructional issues with other educational leaders in their schools. Consequently, the following contextual information applies specifically to South Carolina secondary-level public schools defined as including some configuration of grades 6 to 12. However, in the selection process, those participants available for interviews, all were high school principals, that is, leaders of schools housing 9th through 12th grades.

The South Carolina Department of Education, or SCDOE, (2018a) reported that in 2018-19 the state had complete data on 445 secondary schools, including charter and virtual schools. These 445 schools included an approximate student population of 370,000 and employed 23,150 teachers. These 2018-19 data yielded an overall student-teacher ratio of 16 to 1 across the state throughout grades 6 through 12. For this same

reporting year, the SCDOE (2018a) data shows an average principal tenure of 4.2 years in these secondary-level schools. I classified the 445 schools using the following definitions: (a) small schools included 600 students or less,(b) medium schools encompassed a range of 601 to 1200 students, and (c) large secondary schools enrolled more than 1200 students during 2018-19. These categorical definitions produced 167 small, 196 medium, and 82 large secondary schools. Additionally, using the National Center for Educational Statistics,' the NCES's (2018) classification system, each of South Carolina's secondary schools met one of four broad geographic definitions of rural, town, suburban, and city. (Figure 4.1)

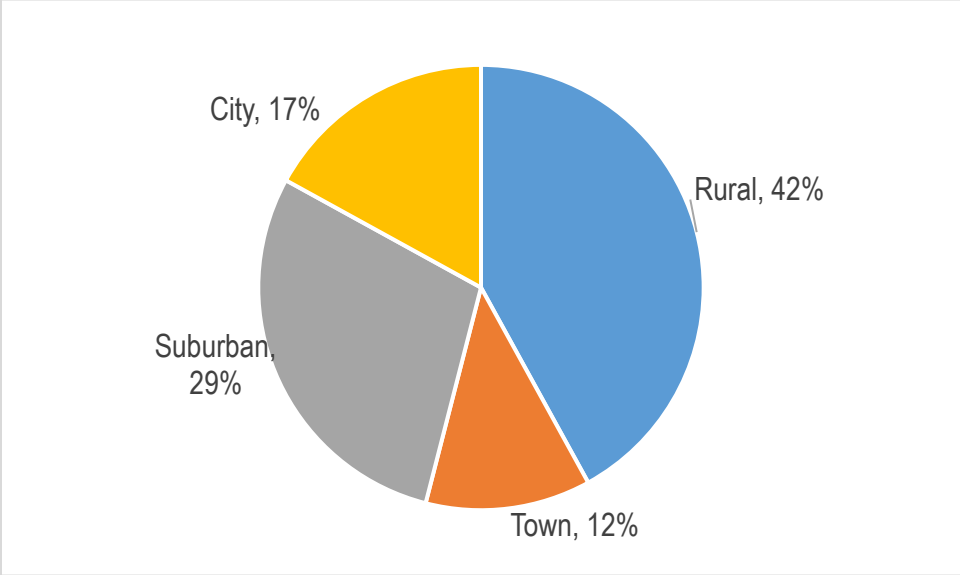

Figure 4.1. Geographic Distribution of South Carolina Secondary Schools. Adapted from National Center for Educational Statistics (NCES), 2018, Search for Public Schools [Data file].

Description of Participants

The choice of principals for invitation to participate was multi-staged based on the size of their schools, the principals' tenure, and the contextual categories of city, town,

suburban, or rural. I invited 32 principals to take part in the study via email and then by phone. (See Appendix C.)

Each potential participant received two email solicitations with a personal phone call between the first and second email. Six principals responded positively and agreed to supply narratives about their problem-solving experiences.

At the time of each interview, principals had served at least three years in that role in their current schools. Since contributing to the study, two participants have moved to different positions within the state and remain in public schools.

Table 4.1 supplies an overview of the principal and school demographics for each setting. To maintain confidentiality, and even with the offer to self-select pseudonyms, all participants agreed to my assignment of aliases for both them and their schools. All participants chose to be interviewed in their offices at their schools. The interviews ranged from 50 to 75 minutes.

Table 4.1

Participant and School Demographic Information

Participant	Years at school	School	Student Population *Note*	Number of Teachers	Student/ Teacher Ratio	Size	Locale
Mary	4	Stevens High	609	41	15:1	Medium	Rural
Matthew	5	Wesley High	1505	77	20:1	Large	Town
Mark	4	Winburn High	801	50	16:1	Medium	Rural
Paul	9	Peyton High	912	44	21:1	Medium	Suburb
Luke	5	Turner High	198	19	10:1	Small	Rural
John	5	Connorton High	480	32	15:1	Small	Rural

Note. This information is as of the 135th day of the 2018-2019 school year.

Using field notes (Appendix E), I recorded the overall context of the school and reflected upon each participant's general demeanor during the interview as well as noted my reactions. These reflections attempted to capture body language, voice inflections, level of preparedness for the interview and general use of detail in describing the incidents. I used the field notes protocol as a means of increasing my self-awareness and the veracity associated with the participants' responses rather than imposing my own preconceptions (Marshall & Rossman, 2015; Miles et al., 2020; Tracy 2010). In these notes, I described the overall appearance of the facilities and the spaces surrounding, and including, the principal's office. These field notes not only contextualized my analysis, but also provided the primary source for the following introductions and descriptions for each of the participants.

Mary – At the time of the interview, Mary had completed four years as Principal at Stevens High School (SHS), among the smaller, more rural schools in South Carolina. Although SHS exists in an older building, it looked clean with a well-designed front entrance and ease of access to the office. I observed the reception and office area of Steven's High School as orderly and attractive. We had scheduled the meeting for after school hours and no students were present. I arrived on time and Mary greeted me within 5 to 10 minutes. She escorted me to her office where we sat around a small table. Her manner was relaxed, and she seemed excited about participating, saying that she was considering pursuing the PhD through another university. For that reason, she agreed to be interviewed because she was curious to see how the dissertation process might work.

Mary had made notes regarding her ideas and recall of two scenarios as prompted by my email. Before we began her narratives, she asked several clarifying questions

about the appropriateness of her choices for the Critical Incident Technique. She spoke freely and sometimes rapidly, often using hand motions. Combined with her voice inflections, it was clear she was excited to relay her scenarios. She freely admitted when she could not recall or was unsure of her answers, even alluding, at some points, to a lack of knowledge. A search of her transcript shows approximately 13 uses of a phrase of "I don't know" or a similar statement. However, during her second narrative, one she deemed unsuccessful, she often paused in her narrative and tilted her head as if deep in thought regarding the effect of her decisions. Several times her statements would trail off as she paused to reflect on the events. Mary provided scenarios regarding instructional issues with the goal of increasing student achievement. While no real conflict was present in her narratives, Mary stated several times that she realized the need to involve others as she worked towards implementation of these two specific programs.

Matthew – Matthew, a five-year veteran as principal at Wesley High with over 1500 students, served in the largest campus I visited during this study. I had some difficulty finding the front office due to a great deal of construction and renovation on campus. Matthew and I scheduled our meeting for 1:30 PM which meant school was still in session. As I approached the entrance, an assistant principal was standing out front and gave me directions to the front office. I arrived on time, and Matthew greeted me within 5 minutes. He was cordial and took me directly back to his office. He had a medium-sized office with only his desk and two chairs and no table for meeting with more than a couple of people. Instead, he sat on one side of his desk and I sat across from him. Matthew obviously had thought through the prompts as he had prepared notes to which he kept referring during his interview. Matthew seemed more than happy to provide the

narratives and respond to any probing questions I asked. However, despite some probing, Matthew provided little introspection over the scenarios and for the negative incident, Matthew pushed aside my direct requests to probe results and implications of those decisions.

Mark – Mark served for four years as principal of Winburn High, a medium-sized school that was one of the more rural schools I called upon during this study. Housed in a very old, cramped building, I had no trouble finding the front offices. However, its tight quarters offered no space for visitors to sit. As our interview was set for 2:00 PM, students were moving in and out of the front office. This movement gave me an impression of a very busy space. Later, a student told me I had gotten there for a rush of students "signing out" for early dismissals or off-campus appointments. School policy allows students in grades 11 and 12 to leave school early if they have finished their scheduled classes for the day, but they must go through the front office and sign a roster showing they have left for the day. I waited about 10 minutes before Mark came to greet me. He was cordial and reserved. Given the tight quarters of his small office, I conducted the interview with Mark's desk between us. Mark was the most restrained of all the interviewees. He had prepared for the interview and gave his responses in a carefully measured style. I recognize then and now that Mark's caution influenced my field notes and likely my analysis of his transcripts. Overall, I did not feel he was attempting to hide anything, but I had a sense that he wanted to ensure his comments could not be interpreted in a pejorative way. However, once the interview ended, Mark's restrained behavior during his narratives diverged greatly. At that point, I noticed his family photos on a nearby table and the fact that they were wearing Clemson shirts. This mention led to

our talk about Clemson football with Mark showing me Clemson paraphernalia. As Mark talked of his family and the story behind the paraphernalia, the conversation was very free and relaxed. Those concluding moments formed a stark contrast to the tone of the interview as Mark and I joked and laughed over stories regarding our undergraduate days.

Paul – Paul, as a 9-year veteran educator at Peyton High School (PHS), was the most experienced principal among the six participants. PHS, a medium suburban school with over 900 students, represented the second largest school in this study. PHS's completion in 2011 made it one of the more contemporary facilities I visited. PHS is in a growing suburb outside one of South Carolina's largest cities. I noted the front office space as large, quiet, and well-lit with plenty of seating. Although I arrived on time, Paul was at a meeting elsewhere and arrived 15 minutes later. He was apologetic, cordial and escorted me directly back to his office which was bright and spacious. We sat at a conference table that could seat up to six. Paul had prepared notes regarding his two recalled critical incidents and chose to begin with the one he viewed as having a positive outcome. Paul was at ease and responded quickly and easily to my probing questions. Despite the overall positive demeanor of the interview, Paul revealed that he was considering leaving the principalship after the 2019-2020 school year. He stated his reasons with a desire to stay in education, just not an administrative position.

Luke – Luke is principal of Turner High School and with 198 students enrolled, it was the smallest high school I visited. Despite its enrollment and very rural location, the facility is the newest of any in this study. Luke asked if we could meet on a Sunday afternoon, which I accommodated to provide for a face-to-face interview as opposed to a phone conversation. Since on any Sunday, the building is locked tight, Luke and I traded

text messages for me to gain access to the building. Luke welcomed me enthusiastically and escorted me back to his office. The space was moderately size. Although Luke sat behind his desk, the space allowed me to sit diagonally across from him so that the desk was not between us. Even though Luke had made no notes, and initially seemed to me to be unprepared, he mentioned receiving the IRB-approved information regarding the research and asked for a minute or two to remember both types of critical incidents. I continued with the interview even with my supposition that if Luke had not prepared, then the incidents might not reveal a great deal. I choose to included Luke's interview appointment and his responses in the belief that the in-the-moment recall of critical incidents might be potent indicators of principals' behaviors. I reflected that, perhaps due to his lack of time to self-edit or select researcher-pleasing situations, then Luke's in-the-moment responses might be authentic and perhaps a balance to some of the other participants' carefully prepared notes. Fortunately, Luke's narrative ultimately did provide additional data that was useful to this research. Luke began with the one he considered unsuccessful but alerted me that it was also the one that was successful due to its ultimate outcome. Luke was good natured and spoke freely about the school and the value a small rural school offered its students.

John – John is the principal of Connorton High School (CHS), another small rural school. CHS was the oldest facility of any I visited. The interview was set for after school hours and no students were present. The entrance and front office were easy to find, and John was already working with the receptionist in the outermost office area. He greeted me amiably, offered me a bottled water and then took me from the reception area back to his office. The office was small and somewhat crowded. John sat behind his desk and I

sat across from him with his desk in between. John did not have specific scenarios in mind and even added, “I'm sitting here trying to think. What have I done that didn't work out well? At least that I want documented.” As with Luke, I was somewhat disheartened at the lack of preparation but went forward with the interview on the chance that he might provide something illuminating in a more spontaneous way. Again, I was pleased at the conclusion of the interview as my time with John yielded conversations which definitively addressed the research question.

Summary of the Narratives

Six principals agreed to participate in this study, and each provided two narratives, one having a successful resolution, and another that they deemed to be resolved unsuccessfully. I gave all participants prompts well before the interview appointments, and I offered them more than one opportunity to ask clarifying questions prior to the interview date as well as before the actual interview. While four of the participants had taken time to consider appropriate scenarios for their narratives, Luke and John did not appear to have given a great deal of thought to what situations they would use during the interview. However, since the scenarios chosen by the principals were those that were important to them and stood out in their memories, I proceeded with the interviews as planned. The following summaries provide an individual overview of each participant’s responses to the two prompts.

Per the requests of the participants, I assigned pseudonyms to them and their schools. I used interview protocols directing the participants to avoid individual’s names and instead referring to them by their roles, if school personnel, to protect the confidentiality of the participants and other collaborators.

Participants

Mary. Mary chose to begin with the narrative she felt produced a successful resolution. Early in her tenure as principal at Stevens High School (SHS), the SCDOE (South Carolina Department of Education) chose Mary to participate in an initiative called Personalized Learning (PL). This PL initiative provides differentiated instruction based on student needs and increasing student accountability in their achievement (Pane, Steiner, Baird, & Hamilton, 2015; South Carolina Department of Education, 2016). Initially, Mary had misgivings as to whether she and her school would participate. However, as she worked through the ongoing training, she became more confident in the program's ability to improve achievement at her school.

So when Mary made the decision to pursue Personalized Learning and began thinking through what implementation at SHS might look like, she admitted "I made a lot of those decisions" but quickly added "as I decided what the core should be, I then began bringing people in to help me." She began implementation by collaborating with her Assistant Principal for Instruction (API). The API is one of two assistant principals at SHS. The API's main responsibility is supporting SHS's instructional goals and providing oversight for the school's Title I initiatives. Mary knew the API was instrumental as "she also was over [administered] our Title 1 budget and I knew that I was going to need money to do what I wanted to do." Mary and the API planned the training model and then engaged an expert from another part of the state to provide the required training. Once the plan was in place, she centered her efforts on a specific group of teachers and her second assistant principal (AP), whose responsibilities, like many

high school APs, solely concentrated on discipline of student behavior. As she stated in her narrative,

> So, I decided to use the cohort model and just focus on a few. And so, I chose 10 teachers and one assistant principal to be a part of this cohort. Also, when I chose them, I invited them…. I didn't say "I want you to do this". I gave them a little bit about what it was and asked them, you know, "Is this something that you think you'd be interested in?" I told them, "You know it doesn't hurt my feelings if you say 'No', but if you'd like to be included, I'd love to have you be a part of this. I think you would, I think you would enjoy this." Well, they all accepted.

Mary's reasoning for including her AP in this first cohort was based on the concern that, unlike the API, his primary responsibility was "all discipline, and … I wanted him to learn more about what was happening in the classrooms". Mary foreshadowed her development for that AP as an anticipation of continuity as she commented, "the day that I leave SHS. Like whenever that day happens, who's, who's going to be able to carry on this initiative after I'm gone?" She felt as if having both assistant principals involved from the beginning was integral to the continued implementation of the program even after she was no longer principal.

Mary stated that SHS faculty outside the cohort began asking questions about and showing interest in Personalized Learning. Consequently, Mary created a second cohort that not only included faculty from SHS but also from the feeder middle school. Mary believed there continued to be enough interest at the middle and high schools to begin a third cohort. She concluded by saying, "it [the Personalized Learning initiative] did start

with me, and that's something that's turned out very well and I'm very proud of and I hope we'll continue."

Mary's choice of a critical incident she thought was unsuccessful involved an increasing enrollment of non-English speaking, or English Language Learners (ELL), students in her school. Her goal was to use newly amended state legislation (SC Code of Statutes §59-39-100) to apply to the SCDOE for two innovative English courses (South Carolina State Board of Education, 2018). These courses would supplant English III and English IV in the South Carolina State Board of Education (2018) requirements for graduation. Mary began by collaborating with her English department chairperson and the Director of Curriculum and Instruction for her district. Mary conveyed the enthusiasm expressed by those individuals for her idea, "So they were like, 'Yeah!'"

Early in their discussion, the planning team broached the question of who would be best to teach such coursework. Mary and her two collaborators nominated an English teacher at SHS, as the perfect choice. They believed this teacher to possess "a real heart for these students". Additionally, this English teacher had a South Carolina professional endorsement (SCDOE, 2018b) as a teacher of English to Speakers of Other Languages (ESOL). According to Mary, the nominated English teacher expressed enthusiasm and commitment regarding the invitation to teach the prospective course: "She's like 'Yes'! You know, she's like 'I've got it. We can totally do this.'"

However, the plan ran into two obstacles. The application process for the innovative courses became the first obstacle when it did not proceed as planned. Mary, who asked to leave the source of her information unnamed, was led to believe the application process was quick and easy, which, as it turned out, was not the case. At the

time of the interview, Mary reported that seven months ago, her school had submitted the application to use the courses through the Diploma Pathways initiative, but they still had no word from SCDOE officials. Without SCDOE's official sanction in time to offer the course in lieu of an English credit, her school offered that course as an English lab with the selected English teacher. However, Mary thought that even in lab form, the innovative instruction would still help prepare the enrolled students more adequately for English I than no support at all.

The second obstacle materialized when the English teacher chosen to teach the innovative course/lab decided she no longer wanted to serve in that role. She applied for and received an offer to teach in a more traditionally structured ESOL position in that district for the following school year. So now, Mary was left with no one in her building qualified or interested in teaching the course. Mary lamented that "you have to be, I think, a special teacher to want to take that on. And now I don't think that I have that. So now my whole plan is shot…". Mary ended the narrative by saying, "You think it's going to be good for them [the students]. But it has not turned out exactly the way that I thought it would and I still don't know that it will."

Matthew. Matthew began his participation about his two critical incidents with the scenario he viewed as successfully resolved. Matthew's instructional challenge was to improve students' EOC scores. While Matthew reported that Wesley High School (WHS) students' results on Advanced Placement exams, the ACT and the SAT were "really good", the problem was that "our EOC scores have really struggled." Matthew described the solution this way, "We've taken our English 1 and Algebra 1 teachers, and we've implemented a program called Data to Instruction."

Data to Instruction (DTI) is a framework (NWEA, 2015) associated with a testing contractor, NWEA, once known as the Northwest Evaluation Association (2020). Under various local contracts with some state support, NWEA provides a suite of achievement tests, Measures of Academic Progress, or MAP, that many South Carolina school districts use as a formative progress-monitoring measure.

According to Matthew, all the elementary and middle schools in his district had already been utilizing DTI for "a couple of years". When I asked how the idea to apply the same strategies at the high school came about, Matthew commented:

> It actually started with our administrative leadership team for the district, me and a principal at our neighboring school, and, you know, some other people at the district office that are in instructional roles there. We all started talking about it and felt like this would be a good thing to do with our teachers as well.

Matthew and two of his four assistant principals volunteered for training in the DTI process, so they returned as trainers for the WHS faculty. The teachers tapped for training were those who taught courses culminating in either South Carolina's English I or Algebra I End of Course Examination Program, commonly referred to by South Carolina educators as EOCs. These summative exams are part of the South Carolina State Board of Education's (2016) assessment program. In response to my question regarding teacher receptiveness to the initiative, Matthew replied, "The teachers were receptive. They know that we need to work really hard to improve our EOC scores." He maintained teachers' acquiescence about the initiative twice more during the interview. For example, he said, "Our EOC scores have really struggled. That's an area that we feel like we need

to do everything we can to improve upon. So, the teachers were receptive." Also, he remarked, "Our EOC scores have struggled in those areas and they [teachers] know, just as I know, that we need to work on something to try and bring those scores up." Based on anecdotal information from teachers and pilot test data, Matthew expressed optimism about DTI as "preliminary results have shown that it's working".

Matthew's second scenario, one he saw as unsuccessful, involved a decision resulting from economic conditions during the 2007-2009 recession that, at the time of the interview, a decade later, continued to affect instruction at WHS. Matthew was not principal at WHS when the initial decision was made, yet he was involved indirectly as a principal of another school in the district. He admitted his membership in "the district leadership team" which was facing budget reductions and used class scheduling as one means of streamlining costs.

Matthew recalled the 2008 recession's budget effects on schools: "the budget was really, really bad and everybody's losing teachers…, having furlough days, and heck, some people are just sending people home. I mean, it was a bad time." State funding reductions forced school districts to lower operating costs. Matthew's district used a strategy to reconcile fewer teachers with the same number of students by the decision "to go to a hybrid [class] schedule." Prior to this decision, the high schools in Matthew's district operated exclusively on a four period per day (4 x 4) class schedule. Now, the high schools would incorporate a more traditional six-period schedule into the day as well. Table 4.2 provides a comparison of the two class schedules.

For the fall of 2008, Matthew and his team placed rising freshman in courses using the six-period schedule if their middle school academic performance ranked them

in the bottom 20% of their class. The schedule for their peers included courses using the 4 x 4 schedule.

Table 4.2. *Comparison of Selected High School Class Schedules*

	Schedule Type	
Characteristics	4 x 4 – all courses change between fall and spring semesters	Six Period Day – all courses remain static through fall and spring semesters
Class Periods per Day	4	6
Total course credits possible per school year	8	6
Minutes per period	90	60
Number of days course meets per school year	90	180
Total instructional hours per course	135	180

Note. Adapted from Alternative High School Scheduling. Student Achievement and Behavior. (ED411337). Copyright 1997 by Metropolitan Educational Research Consortium.

One of the most noticeable differences in schedules is the amount of instructional time provided. According to Matthew, the district administrative team theorized, “You know, we're going to bring up test scores. The teachers are going to be in there with these kids for 45 more hours, and this is going to be wonderful.” Interestingly, Matthew followed that comment immediately with, “Well, and obviously this was done to try and save money cause you're losing staff members.”

When asked how teachers initially accepted the idea of the hybridized schedule, Matthew’s response was, “So I guess the thought process was, ‘Well, I'm glad I still have a job.’ You didn't hear a lot of complaining about it.” Ultimately, Matthew deemed the decision to adjust the schedule as unsuccessful due to its failure to show results as

measured by student achievement. Matthew's overall summary was that, "We did not see an increase in our test scores. I can tell you that, as a matter of fact, I think we saw a decrease more than anything else."

Matthew also recounted other problematic issues he believed resulted from the hybrid schedule: (a) difficulties in scheduling classes, (b) his belief that teachers were leaving the district due to the 180-day schedule they were given, and (c) increased disciplinary issues due to remaining with same teacher for 180 days. However, he was adamant that his "biggest concern is that we were not seeing an increase in test scores". Matthew and another high school principal in his district have been "working for years" to convince the district to allow them to drop the six-period schedule and only maintain a 4 x 4 course schedule. He was excited to add that "we've finally, we finally convinced our superintendent and instructional leader that, yeah, it's time."

When asked about how his teachers felt about going back to an exclusively 4 x 4, 90-minute, block schedule, Matthew reported,

> They're okay with it. They just know that they're going to now have to condense what they're doing down to 90 days, 90-minutes a day…. But, they're with it. They see that we haven't made the progress that we need to make. So, you know, we feel like this might get us back to hopefully making some progress.

So what began as a decision that, according to Matthew, ultimately had a negative effect, Matthew saw this episode as ultimately successfully as he and the other high school principal in the district lobbied their central office for a change meant to bring greater academic success to his students.

Mark. As with most of the other participants, Mark, started with a critical instructional issue that he deemed as successful. Mark described how he implemented Personalized Learning (PL) (Pane, Steiner, Baird, & Hamilton, 2015; South Carolina Department of Education, 2016) at Winburn High School (WHS). The SC Department of Education (2016) supported this type of initiative, and as Mary's narrative indicated, other SC secondary schools adopted PL. Nevertheless, multiple options exist for PL, and Mark described his approach to involving faculty. He detailed stages of planning and staff development. Mark and his administrative team, consisting of two assistant principals and two instructional coaches, created specific activities for faculty development. Mark related his assumption that teachers needed exposure to and interaction with experiences which mirror experiences teachers must provide students. He laid out a very carefully crafted protocol for integrating PL into the curriculum as well as classroom instructional methodology at WHS. Mark was careful to note how he and his team presented the concept of PL to the faculty in a very nonthreatening way.

> We [Mark and his administrative team] just let people know that it was available. We didn't say, "Hey, you got to do this." or "This is going to be our focus." We, just said, "Hey, we're learning about this, trying to move us forward. If you're interested in being on that journey, you can."

Mark also stated that while all the teachers in their building received instructional support, his team paid a great deal of attention to those teachers attempting to implement some measure of Personalized Learning. Mark reported that about one third of WHS's teachers fully implemented PL in their classrooms, another one third used some

components, and the remaining one third was not involved, even by the time of the interview.

Although Mark stated no requirement for his school's faculty to implement PL in the classroom, he also reported that the school district was in the process of creating classroom observation tools for monitoring PL strategies. Additionally, the central office's plans for district-wide faculty development focused on PL implementation.

Mark dealt with a similar program adoption process in his narration about an unsuccessful critical instruction issue incident. Faculty engaged in an introductory professional development session focused on Project Based Learning (PBL) (Barron et al., 1998; Bloomfield et al., 1991). Mark issued an invitation to anyone who was interested in exploring PBL based on their interest and comfort level. One teacher was interested and approached Mark regarding the idea. Mark and the teacher decided to pursue a PBL unit together. Mark admitted that it was "hard for me to devote the time that I needed to… as we implemented that unit." He readily confessed that he and the teacher "didn't really effectively plan" as they set out to implement that unit. At the end of the unit, Mark and the partnering teacher expressed disappointment with the results. Mark noted that the problem around which the unit revolved was too open-ended and the students floundered as they attempted to find direction. Even though Mark's overall designation of that episode was unsuccessful, he was quick to make a positive connection with PL. He noted that his partner teacher in the failed PBL unit had combined elements of PBL into the PL model, adding "It was very successful."

Paul. Paul was in a unique position in that he had opened the brand-new Peyton High School nine years ago. He had hired every teacher in his building, which he saw as

a fundamental step in ensuring high quality instruction. He began his interview by sharing the principle that "the student's quality of education should not depend on which teacher that student gets." He then stated a corollary obligation that once a principal has selected the teachers and brings them into the building, it is imperative that principals "create opportunities for them to work together."

Paul first narrated a collaborative situation focused on creating Professional Learning Communities (PLCs) in his building, which he recalled as successful. The initiative began in the EOC courses because as Paul emphatically stated, "They are, they are the numbers by which we are judged [Paul tapped his finger on his notes] at almost every level." Paul started to build PLCs by meeting with Peyton High's two assistant principals (APs) and laying out his reasoning and plan for providing occasions for teachers to plan together. Paul quickly concluded that beyond the APs, he should consult others. He added school counselors to the discussion because of their roles in scheduling. Initially, this group explored the idea of providing a common planning period for all teachers of a specific content area but then dismissed it. The team of APs, counselors, and Paul, then began to focus on specific pairs, or possibly triplets, of teachers they could group for planning purposes. The resolution was to hire a substitute to come in once a month and cover one member of the teacher pair's classes. The teacher freed by the substitute would then go and plan with their paired teacher, who taught the same content and already had a planning period scheduled at that time. Because this approach worked well, Paul increased the shared planning frequency to twice per month and then, weekly.

As the frequency increased, though, teachers began expressing concern over "giving up" a planning period to collaborate. The teachers with substitutes also

complained about losing at least four days of instructional time every month. Paul resolved both issues by rotating the meeting time so that no teacher was giving up planning or instruction time more than twice a month. Paul's reflection about his approach to problem-solving included the observation that "we just took it as it came, and it was a matter of logistics." Still he observed that some days a lack of substitutes interrupted the PLCs.

Paul's recall of this critical instructional issue as a successful collaboration is based on positive changes in EOC scores. He proudly reported courses with active PLC content-based planning pairs generated the highest EOC scores in the district. Paul summarized, "for the most part, that has worked out well, and we are expanding…. We are ready to take the next step."

Paul prefaced his narrative of an unsuccessful situation by deeming it a "colossal failure". During spring semester of 2017-2018, Paul decided to use one of his faculty members as, what he termed, an "instructional facilitator". Aligned with other commentary (Range, Pijanowski, Duncan, Scherz, & Hvidston, 2014), Paul's vision for this position was to use this person to "spend time with teachers talking about ways to tweak their instruction." Paul described his choice for the facilitator as "the absolute best teacher I've ever seen" and believed "she [had] some things to share" with other teachers. Paul saw this new role as "a way to help, particularly our younger teachers, because lots of them want feedback". He added that it was difficult for the administration to schedule the time to "get into classes the amount that we want to." So while working on the next academic year's class schedule, Paul noticed he could "put a hole [in the facilitator's class schedule] … [to] allow her to help us in some of the things that we do." His plan

was for the facilitator to use this unencumbered time to observe instruction, provide feedback, and offer suggestions for possible improvements in teaching that would lead to better student achievement.

But when announcing this plan during a faculty meeting, Paul reported, "That [supportive intent to meet teachers' desire for feedback] is not how it was received. It was received as she was an administrative spy." To emphasize teachers' resistance, Paul added that "It was almost a revolt about this idea." Paul had to contend with a good amount of tension and angst among his faculty and with his own internal turmoil. He resented how teachers, whom he had both hired and nurtured, accused him of favoritism and espionage. He trusted all of them and felt keen disappointment and anger as he inferred their reactions meant a lack of trust in him.

After taking time to calm down and think through the situation, Paul decided to meet with his faculty by department and have the new instructional facilitator join him. Paul said he was thankful that the maligned teacher had a very disarming personality and worked patiently to ease most of faculty's anxiety regarding her purpose in their classroom. Eventually, Paul counted this critical incident as a success as teachers included the facilitator in supporting their instruction, noting that she was "an absolute blessing" to those that made use of her talents. So, Paul admitted that due to a lack of collaboration early in this process, the initial implementation was not the enthusiastic adoption he anticipated. However, through the instructional facilitator's approach, which provided successful assistance based on her expertise, it eventually became successful.

Luke. Luke chose to start with his recall of a critical instructional issue with a negative outcome, a different choice than other participants made. Luke recalled a serious

dip in the number of qualified applicants for teaching vacancies at Turner High School, the smallest rural school in this study. To deal with this gap, Luke said that his school scheduled 20 online classes. Luke reported the classes seemed to be under control and all was "going fine" until an instructional coach, who also taught two sections of Geometry, unexpectedly resigned in early October. Referring to the cause for her resignation, Luke offered, "I'm not exactly sure what it was." He did theorize about issues with the district being the catalyst for her resignation but summarized the departure by stating "she never really got started well, but she just left." The resignation meant more online classes to cover those, now abandoned, two sections of Geometry.

Four to five weeks after the resignation, as Luke continued his desperate search for a teacher, the online content provider for Geometry reported a high occurrence of cheating. Once Luke finally hired a teacher and provided her with some background, she almost immediately notified Luke that she was "horrified at how little they knew." Luke then discovered that cheating was not limited to the online Geometry classes. The online Algebra I and II courses also had students who were using a separate website to calculate answers for both Geometry and Algebra problems. The students enter the necessary information into the website's algorithm, receive the solution, enter the solution, and move on to the next problem. Luckily, Luke hired an additional certified mathematics teacher after the winter break. As a result, several of the math classes went back to a face-to-face instructional setting. This move not only created higher quality instruction among students moved into the traditional classroom setting but ensured the remaining online instruction students received closer scrutiny of their work.

Luke laughed as he divulged the tone of angry parents phoning him because their children, who had been getting As, were now failing. Although, after a month or so of meeting with parents and students, Luke reported the students "figured out we're not giving in", and parents realized the new teacher was "doing what was best for the children." Luke admitted that he had not understood the full implications and potential consequences of losing a single teacher in the month of October. Luke's projection for that year's Algebra I EOC scores was, "we were in trouble". Despite that gloomy prediction, he was glad to report a relatively successful pass rate due to the feeder middle school's section of Algebra I students. He was hopeful for the 2018-2019 year as the rising ninth graders from the middle school had experienced a much more successful (based on test scores) and structured online instructional program.

The successful collaboration Luke described related to another online content program called Star Academy (Star Academy Program, 2018). Luke's described Star Academy as a program "that actually lets students get ahead." The program website describes its purposes primarily as dropout prevention through re-engagement of students (Star Academy Program, 2018). Luke reported that some of Turner High School's Star Academy Program students moved more than a grade-level per year. Yet, Luke also reported that Star Academy's base in Louisiana seemed to indicate a misalignment in content with South Carolina state standards. Initially, Luke reported that no one noticed this incongruity due to an accelerated timeline for implementation of the program. Luke also stated that he did not receive confirmation of funding for Star Academy in time to provide adequate professional development for faculty prior to the beginning of the 2017-2018 academic school year. In Luke's words, "It happened so quickly. Like, my teachers

weren't overly prepared." Since then, Luke has taken his staff on several visits to schools which reported success with Star Academy. In addition, during the summer of 2018 his teachers volunteered for training regarding the instructional logistics associated with online content and planning.

Luke concluded his narrative by stating that they had learned many difficult lessons during the fall semester of the previous year. However, he was very optimistic as he listed the following reasons: (a) his current freshman class was the best academically prepared cohort yet, (b) additional teachers had been hired, and (c) the Star Academy program was firmly in place for the current freshman class.

John. John began with the narrative he deemed successful which involved those he called "guidance" counselors. John described this scenario as originating three years ago with two school counselors arriving as "young, energetic, but inexperienced". Based on his observations, John realized that they were overwhelmed by the task of providing students, parents, and teachers with the necessary information regarding appropriate course sequences for students' career goals, a state requirement for all students, particularly in high school (SC Code of Statutes §59-59-10 through §59-59-50). In addition, the counselors needed to advise students on the job options associated with those goals. In John's words, correctly providing all this career related information was "scary for these new guidance counselors."

As he synthesized these observations, John came to the realization that his classroom teachers themselves had little understanding of those course sequences and appropriate post-secondary options for students based on their career goals. He saw this

as an issue of school culture and said he felt that teachers should take greater "ownership" in the students' success as the students progressed towards graduation.

John saw a need to address two issues: (a) the counselors' trepidation over providing all the necessary career pathway information to students and parents, and (b) the teachers' unfamiliarity regarding this same information. John and his assistant principals devised a program that relieved the school counselors of much of their responsibility regarding the dissemination of career pathways information. In addition, the program also provided greater opportunities for teachers to build lasting relationships with students outside the bounds of a content-based course. In John's opinion, "They're going to have a completely different ownership in that child other than 'I taught you English I.'"

John and partners fashioned the program, which John referred to as "student advisories", by pairing a teacher with a small cohort of students. John and his team intended that the teacher-student group matches would remain static over the four years of the students' high school career. Teachers would stay, or as some educators describe the multi-year practice, *loop*, with their group as students progressed towards graduation. They modified the daily schedule to extend the second block of a four-block day "a little longer" than the other blocks. They figured a time-trade with cumulative extra time allocated on a bi-weekly basis for CHS's student advisories during second block.

From the program's inception, John insisted that "we didn't want it to be a burden on the teachers. We didn't want teachers here [saying], 'Oh, we have student advisory today, at so-and-so time. Oh, my goodness. Here we go again.'" In order to avoid such complaints, John and his assistant principals created content, selected student cohorts,

paired cohorts with teachers, printed packets with activities, and provided instructions on teaching each activity. John noted "We also took into account guidance counselors and what guidance needs to do." Even when pressed about the counselors' involvement, John maintained that the solution rested with him and the assistant principals with teachers' implementation.

Over the past three years, the program has morphed in several ways based on both formal and informal feedback from teachers and students. Initially, the administrative team produced modules that relied heavily on paper and pencil activities. John reported that the program "came close to floundering" as this aspect proved to be tiresome to both the students and teachers. In response, John and his APs began to produce PowerPoint presentations for teachers to use in providing information and completing activities. John and the APs stumbled on another innovation while developing a feedback survey. They made an instructional PowerPoint for survey procedures and added a video clip. In John's words, "that video clip received a lot of praise." So now John and the APs create video clips and insert them into the PowerPoint presentations for student advisories.

When asked if he initially experienced any resistance to the program from his faculty, John admitted that he did, and still does, have some "naysayers". He followed that up quickly with the fact that he also had many teachers who were positive about the program and that the positive teachers "helped the naysayers to see. They were able to talk through it." I asked John if he had ever told the naysayers, "This is what we're doing"? John's response was interesting in that he said he had indeed been asked by some faculty "Do we have to do this?" His response to them was "Yes." However, he qualified his response with "it's not a mean 'Yes', but it was just a 'Yes' and so everybody kind of

understood." Although there is no summative data nor any systematic evaluation, John feels very positive about the progress of this program as it enters its fourth year.

The unsuccessful collaboration that John related dealt with his English department of six teachers. The issue revolved around a vocabulary book supposedly necessary to assist students in becoming more prepared for college admissions, ACT and SAT, exams. By John's account, "we were trying to bring in the vocabulary books and some would sit on shelves and it was a waste of money. Then other [teachers] were using it."

I asked John if he had any formal evidence regarding the effects of the book's use on improving ACT or SAT scores. He replied, "I wish. That would've helped support … my decision … if I could prove that our ACT and SAT scores went up or down." He added that his only evidence was anecdotal and based on student comments to teachers.

John's assessment of the issue was that students in different sections of the same course received different levels of support, including homework, for vocabulary development, depending on teacher preferences. Although he offered no observations or examples, John provided a couple of hypothetical scenarios where these differences could lead to confusion among students and their parents. John added that such differences also caused conflicts among the teachers at times. His only mention of where this information came from was "getting negative feedback from my department chairs." Even though this issue has been going on "for about 10 years", John never mentioned anyone coming directly to him with concerns over the use or nonuse of the books. He added that the ratio of teachers using to those not using the book had fluctuated over the years as faculty came and left. Yet, even when pressed, John did not describe any previous efforts to address the issue.

After several probes about how John ultimately determined this difference among teachers as an issue, John commented, “I don’t like it when my teachers are not agreeing and working together,” adding “I believe that we all should be working together.” John’s simple description of the resolution was “the vocabulary books were not reordered.” In summarizing his reasoning, John maintained that “money was being wasted” and “it was causing some problems” within the English department.

When I asked if any of his English faculty were unhappy over his decision to not reorder the book for all the students John replied, “At first they were upset because … you're taking away a tool that they believed in.” John then met with English teachers both as a departmental and individually where they “talked through it and worked through it”. Although the vocabulary books were no longer ordered for all the students, “what we allow [teachers] to do is pull from both of them”, referring to both the old vocabulary book and the literature presently being used for English instruction. Curiously, John added “I may not agree 100% with that.” When I asked him why he decided he was not fully satisfied with these teachers’ approaches, he replied, “Because, it’s what’s best for my teachers and my students.” John continued his reasoning by arguing that “I have to step back from it personally and look at it to see what's best for my teachers … and how my students are learning. And so that's it.” John included the necessity of “understanding the students” in this decision and its role in him being “willing to back off.”

Findings from the Data Analysis

I used a synthesis of two frameworks about leadership and problem-solving to create a provisional code list as one step in the analysis of six selected high school principals' narratives about instructional issues (Miles, Huberman, & Saldaña, 2020). I used pattern coding as a second step in the analysis (Saldaña, 2009; 2013).

Provisional Coding

Two frameworks, one each from business (Grint, 2005, 2010a, 2010b) and education (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995; Spillane et al., 2009) demonstrated differences in ways that leaders approach problems. Both sets of findings indicated that more sophisticated leaders approach complex problems by enlisting more involvement and sharing the decision with experts. In contrast, less experienced and typical leaders tended to approach problems with a self-protective, individualistic, and authoritarian tendency. From this synthesis, I generated a preliminary code list used in the first phase of the data analysis.

Table 4.3

First Phase Analysis Coding

Attribute	*Code Used for Typical Approach*	*Code Used for Expert Approach*
Focus	Self	Student Success
Leadership Style	Command/Authoritarian	Collaborative/Leadership as collective
Goal	Conflict Avoidance	Enhance Teaching & Learning
Strategy	Egocentric Assumptions	Data Based Investigations
Strategy	Telling not involving others	Participation Elicited for Decision Making

Note. The provisional codes listed here were adapted from the work of Leithwood and Steinbach (1995) and Grint (2005).

I asked principals to provided scenarios where they interacted with other school leadership to solve instructional problems based in their school's context. In all, six participants provided 12 narratives which they felt exemplified collaborative events with other leadership in their school regarding problematic instructional issues. Each participant provided one scenario they felt was resolved successfully and one which they felt was not.

The list of issues covered multiple facets of instructional problem-solving (e.g., scheduling, instructional resources, improving instructional delivery or pedagogy, etc.). Appendix G provides a summary of each principal's definition of the problems selected in both the successful and the unsuccessful problem-solving scenarios. One principal (Luke) began the interview with an unsuccessful case, which then turned into his successful case. However, he also added a third case which he also declared to be successful. Because Luke began the interview viewing the initial case as unsuccessful, that is how it remained classified. I used Luke's third case as his successful scenario.

It was of equal interest to analyze the principals' accounts regarding the interactions involved in the problem-solving process. Appendix H gives a brief description of how each principal described the initial steps in problem-solving in both the successful and the unsuccessful scenarios. These descriptions gave initial insight into how principals framed these dilemmas in their own minds (Grint, 2005; Leithwood and Steinbach, 1995).

Using a provisional coding scheme based in the work of Leithwood and Steinbach (1995) and Grint (2005), I reviewed each transcript extensively to analyze principals' interactions as they collaborated with other school-based leadership.

Problem-Solving

Leithwood and Steinbach (1995) categorized various aspects of administrative problem-solving into those most associated with expert problems solvers and those more closely aligned with more typical problem solvers. Narratives from six secondary principals provided the data corpus of this investigation. An analysis of these transcripts using the provisional codes derived from Leithwood and Steinbach's (1995) work reveled aspects of problem-solving falling into both categories. Listed below are examples taken from participants' narratives which I coded as either typical or expert problem-solving strategies.

Typical.

Leithwood and others (Leithwood & Stager, 1989; Leithwood & Steinbeck, 1991, 1995) provided much early commentary on the problem-solving abilities of expert principal's vs their more typical counterparts. When compared to their expert peers, typical principals' problem-solving processes were found to be significantly different from those of their expert peers: (a) more concern for self, (b) more focused on constraints and obstacles, (c) more autocratic solutions, and (d) more assumptions regarding others' agreement.

- "I was happy. I assumed everyone else was happy." (Mary)
- "I think there were probably some who didn't like it, but there was also the whole thought, "Hey, I've got a job" (Matthew)
- "In fact, we moved teachers out of those positions who weren't collaborating well and put teachers into those positions who were willing to work." (Matthew)
- "It was looking like I might have 10% pass the EOC. Fortunately, I had an honors class at the middle school that would help pump it up a little bit." (Luke)
- "We thought we had a great plan in place, that it would work. We sat down and created the lesson plans and we would put it in the teachers' hands." (John)
- "All right, so in making that decision, I sat down with both of my assistant principals and said, 'Guys, we know where we want to go. We know what's

important. How do we do that as an administrative team?' And so, everyone had a voice in that." (Paul)

Expert.

Based in the work of Leithwood's group (Leithwood & Stager, 1989; Leithwood & Steinbeck, 1991, 1995) which was later extended by others (Brenninkmeyer & Spillane, 2008; Spillane et al., 2009), expert principals were shown to have significantly different processes involved in their approach to problem-solving: (a) more reflective of their own actions, (b) more adept at problem interpretation, and (c) higher levels of collaboration. No significant different between expert and aspiring principals regarding collaboration and information gathering was found in Spillane et al.'s (2009) study. However, Spillane's work, alone and with other commentators (Brenninkmeyer & Spillane, 2008; Spillane, 2005; Spillane et al., 1999, 2003, 2004, 2009) continued to reflect the notion that collaborative, or distributed, problem-solving processes provide a more effective means of governing schools.

- "She seemed very knowledgeable. And so, I reached out to her and said, 'By any chance do you consulting? Would you be able to come and work with my teachers here?" (Mary)
- "And in this particular instance, very quickly after we began the process of discussing it, we knew we had to pull in other people in our office. We had to pull in our counselors. We had to pull in our graduation coach who also does a lot." (Paul)
- "Together with my instructional leadership team, which includes assistant principals, and two different instructional coaches, we meet weekly to discuss what we're going to be doing…. What we did together is we created a plan to provide teachers with an experience that we want ultimately for students to have." (Mark)
- "We [John and his assistant principals] identified what the problem was but also took into account guidance counselors and what guidance needs to do. We were able to ask; how do we want these advisory classes to go? How are we going to develop these classes?" (John)

Authority Styles

Grint's (2005) typology of authority styles combined Rittel and Weber's (1973) problem types with Etzioni's (1964) styles of organizational compliance. Combining Grint's (2005) work with Leithwood and Steinbach's (1995) research on principal problem-solving provided an additional focus for the analysis. I reviewed the transcripts under investigation to see what I found regarding principal's problem-solving and the use of authority. The following quotes taken from participants' narratives are representative of the participants' use of these two different styles of authority.

Authoritarian/Command Style.

Authoritarian, or Command style, problem-solving is indicative of leaders who create a context where only certain options for decision making are seen as viable (Grint, 2005). Authoritarians tend to be rigid and controlling. Leithwood and Steinbach (1995) also found that more typical leaders exhibited a tendency to ignore dissenting voices and act more autocratically.

- "We just kind of draw some lines and say this is required, this is required, and this is required. And then, there have been some occasions where an administrator sits in on those collaborative meetings to make sure that they are not complaining" (Paul).
- "So, with that said, the vocabulary books were not reordered. Because number one, it was a waste of money. Number two, it was causing some problems within my English department" (John).
- "We worked everything out. I said, this is how we're going to collect our data. This is how we're going to make sure they're learning. This is how we're going to group our students and if we need to change the grouping, we'll change the grouping" (Luke)
- "EOC classes are where we started. We started there because those numbers, they impact us. They are, they are the numbers by which we are judged (tapping finger on notes) at almost every level" (Paul)
- "The teachers were receptive. They know that we need to work really hard to improve our EOC scores. Our EOC scores have really struggled. That's an area that we feel like we need to do everything we can to improve upon. So, the teachers were receptive" (Matthew).

- "I love these children, okay, but they don't do well on an English 1 EOC. They don't do well on any EOC. I mean they just don't, and it is hard when those are the data points that they're using to compare us to schools like [nearby affluent school] who might have three ELLs (English Language Learners) in the entire school" (Mary)

Collaborative/Leadership as Collective.

Grint (2005) and Leithwood and Steinbach (1995) both recognized that leaders with higher levels of expertise sought out others as a means of collaboratively solving problematic issues. Spillane's research with others (Brenninkmeyer & Spillane, 2008; Spillane et al., 2009) corroborated many of these findings and continued the appeal for more study to better understand the interactive processes used by school leadership (Spillane, 2005; Spillane et al., 1999, 2003, 2004, 2009).

- "So, I got together with our Director of Curriculum and Instruction and the English department chairperson. We sat around this table and brainstormed what we could do using Diploma Pathways" (Mary)
- "Together with my instructional leadership team, which includes assistant principals, and two different instructional coaches. We meet weekly to discuss what we're going to be doing and the professional development we're going to be providing teachers each week. What we did together is we created a plan to provide teachers with an experience that we want ultimately for students to have" (Mark).
- "In this particular instance, very quickly we knew we had to pull in other people. We had to pull in counselors. We had to pull in our graduation coach. As we continued to talk and work as a team, the counselors chimed in with, 'Maybe we should identify exactly which teachers we think need to spend time together. And so that became the next step in the process, asking who [would be involved]" (Paul).

Pattern Coding

During the initial phase of coding, certain themes, or common threads of thought, began to emerge in various narratives. Scribbled notes in the margins of the narrative transcripts aided in keeping track of these thoughts as I continued applying provisional codes (Miles et al., 2020). Once the initial phase was complete these thematic pieces

were all placed on a whiteboard (Figure 4.2). This provided an opportunity to see what relationships might emerge from among the collective (Miles et al., 2020). These pattern codes (Miles et al., 2020) provided a means for a second round of analysis by exploring possible explanations regarding principals' decision processes. This process yielded three overall themes, two of which I divided into subcategories.

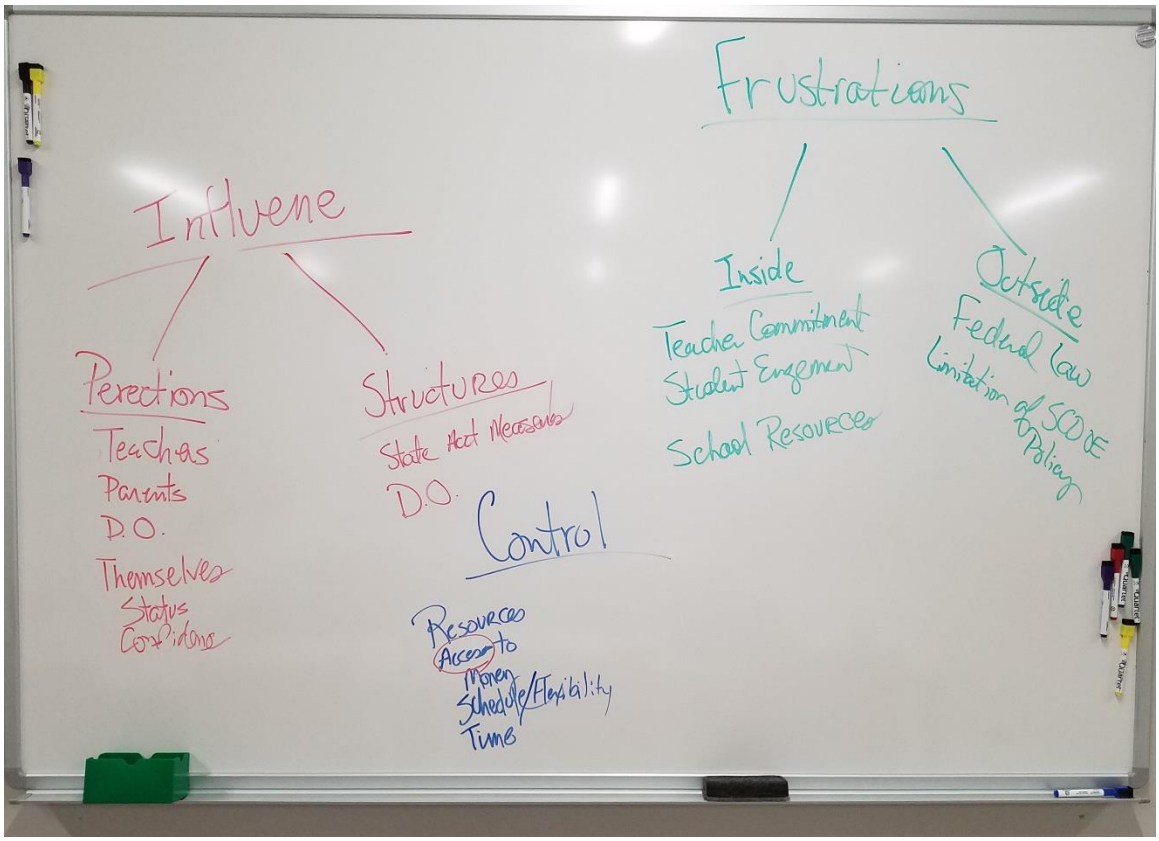

Figure 4.2. Themes Emerging from Phase Two of Data Analysis

Figure 4.2 shows the themes that emerged after phase two of the data analysis was complete. The participants' statements regarding their decision-making processes gave form to the themes and allowed for a deeper study of principals' perceptions of their problem-solving experiences. The three pattern codes which became evident were a) influence, b) frustrations, and c) control. Following, I provided quotes from the participants' narratives which give credence to the themes generated from the analysis.

Influence

Hallinger and Heck's (1996) and others (Endler & Magnusson, 1976; Gronn, 2002; Marsh & Carven, 2006) opined on the reciprocal influences of context, organizational members (e.g., teachers, district office personnel, communities, state educational bureaucracies) and other related artifacts influence the process by which school leaders carry out their work. Specific to secondary school contexts, the level of content expertise can lead to higher levels of interdependence between faculty, instructional specialists, and formal leadership (Klar et al., 2016).

Perceptions

I chose the theme, Perceptions, as a derivation from principal's comments regarding how others (e.g., teachers, parents, district office, etc.) understood their decisions or how they, themselves perceived others' expectations of their roles as leaders.

- "That is not how it was received. It was received as 'She [the instructional specialist] was an administrative spy'. And that is a quote from my English department. It was almost a revolt about this idea" (Paul).
- "We didn't want teachers here [saying], 'Oh, we have student advisory today, at so-and-so time. Oh, my goodness. Here we go again.' The students will see that and feed off of it. We wanted this to be exciting" (John).
- "And I had been thinking at that time, "I don't know what the answer is". You know, because so much of it - I mean yes, it's on us in the classroom. But so much of it too is influenced by outside factors and I don't know how to influence those" (Mary).
- "It's just too much. I walk into work on a daily basis prepared to react to things that I'm not in charge of and have no responsibility for, but then [those issues] do become our responsibility simply by the nature of the fact that I'm the principal" (Paul).

Structures

The theme of, Structures, represented an influencing factor, especially regarding

South Carolina accountability measures. The school district's central office (DO) also appeared to greatly influence the decision-making processes within the school. Participants mentioned departmental structures in their narratives and deemed such as possibly an influence on decision making. However, these references were predominately focus on instructional efforts (e.g., improving EOC scores).

- "They [teachers] know that we need to work really hard to improve our EOC scores. We have a really good graduation rate. We do really well in AP, SAT, ACT and things like that, but our EOC scores have really struggled" (Matthew).
- "So, as a district we made a decision to explore Personalized Learning about two years ago. The district wanted to go in that direction" (Mark).
- "Last year we had a teacher shortage and I had about 20 classes online" (Luke).
- "We've noticed that a couple of our [classes] in one particular subject area, the [EOC] scores have dropped. I've got some big challenges ahead because I have some people that are very strong willed in how they teach, and they believe that this way is right. Even though I have the [EOC] test scores to show that we're not being as successful as we used to be" (John).

Frustrations

Another theme arose from principals' narratives as they often expressed frustrations over various elements affecting their decision making. These frustrations came from within the school regarding teacher commitment, student engagement, and school resources. External factors also lent to principal frustrations in the form of Federal law and limitations of SCDOE policy. Accountability measures were a part of this and overlapped with Influence as a force affecting principals' decisions.

Internal

Internal frustrations were those which resulted from interactions with faculty and as a result, affected subsequent decisions made by the principal. These frustrations may have resulted from miscommunication between principal and faculty or from faculty performance issues.

- “So now my whole plan is shot because the whole plan was developed around a specific teacher [who took another job]” (Mary).
- “This is all feedback coming through channels, no one said a word to me. [I] just had people coming in and going, ‘You know, [teacher] just said that there's a spy.’, and I'm like, are you kidding me?" (Paul).
- “If you put them in a class with one teacher for 180 days, they can get tired of each other. Teachers get tired of the kids. Kids get tired of the teachers. And that's just a fact, you know? It's just the fact” (Matthew).
- I don't like it when my teachers are not agreeing and working together. Now, I know everybody has their own different philosophy. But if one teacher is not utilizing the [resources] when another teacher is, you can end up with parents [raising questions]. Then it makes the teachers sound like they're against each other and that's just not a good thing” (John).

External

External frustrations were those affecting principals’ decision making from outside the school building. Thus, leaders had very limited, if any, abilities to influence the effect these outside variables took in their schools. These comments most often involved issues with the district office, accountability mandates, or availability of qualified teachers.

- “The interaction between the Superintendent and Assistant Superintendent and myself don't involve instruction at all, until it's time to look at my test scores” (Paul).
- “The year before [the feeder middle school] did not have a certified math teacher and they just used [online software] without a certified teacher. So, they come over to our high school and their knowledge is just, it's just not there” (Luke).
- “It's hard to know what to do with them when they show up with no credit and they cannot speak English. I mean they still have to take the same credits as everybody else. They’ve got to take the same assessments as everybody else, but they speak *no* English” (emphasis original) (Mary).
- Obviously, [due to budget shortfalls] this was done to try and save money. You're losing staff members. It's trying to get more out of our teachers. It's like squeezing that orange until you can't get anything else out of it” (Matthew).

Control

Control was also a reoccurring theme throughout the narratives. While these narratives were based in scenarios proposed as collaborative processes, it was interesting

to note how often principals spoke of their access to and control over finances, the scheduling of courses regarding who taught which classes or how many classes they taught in their day, including taking teachers out of the classroom for professional development or to provide instructional support. In all 12 narratives, principals were the only actors (Spillane et al., 1999) with that breadth of access. One exception was noted in Mary's narrative where the Assistant Principal for Instruction was also in charge of the Title I funds needed to implement the Personalized Learning (Pane, Steiner, Baird, & Hamilton, 2015; South Carolina Department of Education, 2016) instructional model.

- "As I was working on the schedule, I noticed that I could put a hole there and allow her to help us in some of the things that we do" (Paul)
- "So, even though she was teaching, I was able to take one of her classes from her by January. So, she had extra planning to help me with the instructional job of it" (Luke).
- "What I tell my leadership team is we're going support all teachers. We're going to put a lot of effort in those highflyers and those people that are in the middle so we can get to that [benchmark of implementation]" (Mark).
- "We were able to pay for [a consultant] to come and work with the teachers and I set it up exactly the same way that I had done it. We have a portable at the district office and I purposefully reserve that each month. They also did two site visits. In addition, I gave them one or two workdays and hired subs to take over their classrooms" (Mary).
- "We extended their (teachers') second block class so that when we take away time for the advisory period, the time equals out. So, it's the same amount of time. So, we took that concern out because teachers were afraid, of losing classroom instruction time" (John).

Chapter Summary

Chapter 4 provided an overview of the procedures used in the analysis of the data collected in this investigation. I began with a short introduction and continued to provide an overview of the schools in South Carolina about size and geographic locale. Next, descriptions of the participants provided insight into the context of each participant's individual school and my impressions of their demeanor and responsiveness during the

interview. Following was a summary of the interviews to provide the reader with the context for participants' problem-solving narratives. The overview of the six principals' narratives offered an insight into the analysis steps. The first step in the analysis included application of a provisional code list based on two frameworks synthesized from literature about leaders problem-solving tendencies in business and in educational leadership. In that step, I found substantiation of an authority-style which yielded more quotes demonstrating Command (Grint, 2005, 2010b) than quotes evidencing collaboration (Spillane et al., 1999, 2003). The second analysis step focused on a pattern coding process, for which I found three codes: (a) influences, (b) frustrations, and (c) control. Among the coding for influences, I found a thematic division between mentions of *perceptions*, how people, including the leaders, felt about the decisions, and *structures*, the educational policies associated with instructional issues. For frustrations, I found themes in the narratives about *internal*, school building-level interactions between administrators and faculty and instructional or achievement performance, and *external* frustrations, which stemmed from hierarchical trickle-down mandates based in accountability policy. The third pattern code, control, yielded more evidence supportive of the findings in the initial analysis step with the provisional code framework, which demonstrated a proclivity for an authoritarian approach to addressing instructional issues. The results of these coding processes provided a basis for the discussion of the findings, implications for practice, and suggestions for future research found in Chapter 5.

CHAPTER FIVE

DISCUSSION

Introduction

Looking into the *black box* of decision making for those in leadership roles has been a type of holy grail for researchers over the past several decades. From Leithwood and Steinbach (1995), continuing with Spillane et al. (1999) and today, commentators (Hitt & Tucker, 2016; Neumerski, 2012; Lumby, 2013) decry the lack of research regarding the how and why of the problem-solving strategies utilized by those in leadership roles. Others continually noted a greater scarcity of research at the secondary school level about leadership practices (Firestone & Herriott, 1982; Louis, Leithwood, Wahlstrom, & Anderson, 2010; Neumerski, 2012). I initiated this study with the goal of investigating a singular question: *What are selected secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?*

To that end, I solicited secondary principals from a limited geographic region of South Carolina and asked to provide narratives of their problem-solving experiences. A method known as the Critical Incident Technique (CIT) (Flanagan, 1954) was employed using semi-structured, open-ended questions to elicit participant responses. Principal narratives were audio taped and then transcribed for analyzing. A synthesis of two frameworks including Leithwood and Steinbach's (1995) problem-solving framework for categorizing principals as expert or typical and Grint's (2005) typology of leadership styles were used as a theoretical basis to build a list of provisional codes (Miles et al.,

2020). I used provisional codes for the initial analysis and coding process. Three pattern codes emerged from the initial coding phase (Miles et al., 2020) which I then applied in second phase of coding: (a) influences, (b) frustrations, and (c) control. I identified the theme of Influences and differentiated it by the subcategories of Perceptions and Structures. I subdivided the theme, Frustrations, into the subcategories of those Inside the building and those Outside the building. I initially divided the Control them into two subcategories of Authority and Resources. After further reflection, I decided that the concept of Authority was redundant of the analysis done in the initial round of provisional coding. Consequently, I discussed the theme of Control solely in terms of access to resources.

Six principals responded positively to the solicitation, five males and one female. All principals were in schools with a 9-12 grade structure and were in the midlands and upstate region of South Carolina. Each participant received two prompts several weeks prior to her or his interview to stimulate recall of a critical instructional incident. The CIT prompts were similar in that they guided the principals to recall situations that involved collaboration with other school-based leadership, specifically situations regarding instructional issues. The prompts varied as needed during each principal's narration recalling the resolution process. One CIT prompt focused the participant's recall about a successful resolution, whereas the other asked for an episode seen as unsuccessfully resolved. I conducted face-to-face interviews in a location of the principal's choosing. Empathetic listening and probing questions were employed during the interview providing opportunities to gain clarification or to delve for additional information

(Butterfield et al., 2009; Woolsey, 1986). The transcripts from these interviews served as the primary data for this study. I created field notes after each interview, and those served as an additional source of data. Each set of field notes contained the basic demographic data in addition to my thoughts on the general benefit of the interview, the participant's overall demeanor, the level of participant's preparation, the level of my participation, and my thoughts on the participant's comments based on my own experience.

Discussion of the Findings

I undertook this research study in response to a call from the literature regarding the investigation into *how* and *why* principals engage as they do in problem-solving (Neumerski, 2012; Spillane et al., 1999, 2003). Regardless of copious levels of research, unanswered questions remain regarding how principals interact with other school-based leadership (Leithwood & Steinbach, 1995; Neumerski, 2012; Spillane, 2005). Of interest was the exploration into leaders' conceptualization of their approach to the problem-solving process, including any contextual factors or other mediating circumstances which may affect their practice. Insights into this domain of principal problem-solving may provide results useful in addressing the blank spots of school leadership (Wagner, 1993, Spillane et al., 1999), reaffirming the significance of the study.

All participating principals provided narratives that both dealt directly with instructional issues and included collaboration with other leadership inside their buildings. The level of recall of the events varied between participants with some principals providing very detailed recollections and others speaking more generally regarding incidents and providing fewer details. Leithwood and Steinbach (1995) found

that more expert principals had given much more time to the planning process and were able to provide higher levels of detail than their more typical peers, primarily when tackling ill-structured problems. I did not specifically ask each principal whether they would classify the problems they recounted as ill-structured or well-structured. However, several narratives, especially those labeled as unsuccessful, resulted in unforeseen or unintended dilemmas, a characteristic typical of *wicked* or ill-structured problems. (Grint, 2005; Leithwood and Steinbach, 1995, Rittel & Webber, 1973).

The Study's Answer to the Research Question

This investigation had the goal of answering the question: *What are selected South Carolina secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?*

Literature has provided several heuristics that proved useful when looking into the practices outlined in these narratives (Leithwood & Steinbach, 1995; Spillane et al., 1999, Grint, 2005). Leithwood and Steinbeck (1995) as well as others (Brenninkmeyer & Spillane, 2008; Leithwood & Stagers, 1986; Spillane et al., 1999, 2003, 2004) provided insight into problem-solving practices used by effective leaders, primarily those practices focused on collaborative and information gathering processes. Grint (2005) provided a business perspective on problem-solving with a pairing of authority types (Etzioni, 1964) with problem types (Rittel & Weber, 1973). Grint's (2005) perspectives tie in with Leithwood & Steinbach (1995) by confirming that problems which are unclear in their definition or which hold unforeseeable consequences require a more collaborative problem-solving style.

For the purpose of this study, principals were asked to reflect on scenarios where they worked with other school-based leadership to solve an instructional problem, one they believed to have been resolved successfully and a second the viewed as being unsuccessfully resolved. Interestingly, of the six scenarios deemed successful, three involved district initiatives implemented by the principal at the school level (Matthew, Mark, & Luke) and three described the principal's own specific vision for and realization of a new instructional program (Mary, Paul, & John). Of the six narratives categorized by principals as unsuccessful, one was a district led initiative the school (Matthew) had to implement, and four were principals' individual proposals (Mary, Mark, Paul, & John). The sixth unsuccessful narrative, Luke reported as precipitated by a teacher shortage. Yet, Luke provided no details indicating that he used collaborative efforts to find a solution to that issue. All narratives included some degree of collaboration. However, conversations focused primarily on a means of implementation, epitomized in Paul's comment, "Guys, we know where we want to go. We know what's important. How do we do that as an administrative team?". In addition, these interactions were almost exclusively between principals and their assistant principals and/or instructional coaches. One principal, Mary, mentioned department chairs as being part of a collaboration. Three other principals mentioned meeting with department chairs but either because of unsuccessful problem-solving (e.g., Paul's meetings to clarify the new instructional role) or as an incidental part of the conversation. Overall most of the participants failed to include teachers or even mentioned teacher as part of the instructional problem-solving

processes. The only reference included Mark's mention of co-teaching a class that did not produce the desired results.

Consequently, this study found that although principals determined they were engaged in collaborative problem-solving, their narratives focused primarily on processes used to implement predetermined initiatives. These findings align with those of Grint (2005), as well as Coburn (2006), who described leaders' influence in framing problems. Moreover, others (Flessa, 2009; Lumby, 2013) including Grint (2005), noted that some leaders prefer creating a context depicting the problem as a crisis, and offering a heroic, individualistic solution. Leithwood and Steinbach (1995) also referred to typical, or novice, leaders' predilection for holding fast to a predetermined line of action. While it was not the intent of this study to characterize principals as typical or expert, research does support collaborative strategies as more effective in problem-solving (Brenninkmeyer & Spillane, 2008; Leithwood & Stager, 1989; Leithwood & Steinbach, 1995; Spillane et al. 2009).

Six practicing secondary principals' stories provided an answer to this research study's question: *What are selected secondary principals' reflections about collaboration with other school-based leaders over problematic instructional issues?* Among these selected principals, most centered their decisions around implementation of solutions generated at the school district level, not within the schools. Not surprisingly, since the contexts of these decisions emanated from a hierarchical authority a level above the principals, when they did enlist collaboration, they tended to use a school hierarchy. They mentioned work with assistant principals more than other instructionally based

professionals. None of these principals mentioned those closest to instruction, teachers, or department chairs as among the team addressing instructional issues.

Implications for Practice

The findings of this study revealed several implications for practice regarding how principals approach collaborative problem-solving in schools. When compared to extant research (Brenninkmeyer & Spillane, 2008; Leithwood & Steinbach, 1995; Spillane et al. 2008) these narratives uncovered two concrete recommendations. First, principals need to provide for increased opportunities involving collegial rationality (Leithwood & Steinbach, 1995). Next, the district level should create a flatter structure for solving instructional issues with increased school-based flexibility.

Consistently research studies about educational problem-solving (Brenninkmeyer & Spillane, 2008; Grint, 2005, Leithwood & Steinbach, 1995; Spillane et al., 1999) posited that collaborative decision making can be a more effective means to confront challenging, ill-defined problems, such as instructional issues. Leithwood and Steinbach (1995) refer to "collegial rationality" (p. 96). Spillane et al. (1999) describe "collective cognitive properties" (p. 25). Regardless of the phrasing, both sets of research promoted the notion of a shared pool of understanding and knowledge where individuals bring their own interpretations and expertise to the problem-solving table. In doing so, the sum of the problem-solving expertise far outweighs the aggregated individual parts (Spillane et al., 1999).

Spillane and other colleagues took these conceptualizations one step further in promoting distributed leadership (1999, 2003). Others expanded the notion of distributed

leadership as essential to school improvement, including instructional leadership. Bennett, Wise, Wood and Harvey 's (2003) review of distributed leadership scholarship added to the discussion coining the term, *concertive* action, as a primary element of distributed leadership.

> If distributed leadership is to be seen as distinctive from other formulations of leadership, it is the first of these characteristics – leadership as the product of concertive or conjoint activity, emphasizing it as an emergent property of a group or network – which will underpin it. (p. 7)

These bidirectional, or reciprocal, influences were part of Hallinger and Heck's (1996) explanation of principal effectiveness, supporting the idea that organizational members, context, and artifacts can mutually influence one another over time (Endler & Magnusson, 1976; Gronn, 2002; Marsh & Carven, 2006). Other commentary has also supported the concept of reciprocal influences in the practice of leadership (Spillane et al., 1999; Klar, Huggins, Hammonds and Buskey, 2016; Marks & Nance, 2007). Specifically, Marks and Nance (2007) stated that principals would be "hard pressed" (p. 28) to resolve curriculum and instructional issues without the direct influence of other players (e.g., curriculum specialists, department heads, teachers, etc.), adding that these different cogs of influence had a strong and positive relationship. In a recent study investigating capacity-building potential, Klar, Huggins, Hammonds and Buskey (2016) proposed a conceptual framework built on the mutual influence of multiple components, concluding that high levels of interdependence and interaction were facilitating factors in the various approaches to distributed leadership studied in their investigation.

Scholarship supports the claim that distributed leadership describes a multiplicity of configurations (Bennett et al., 2003; Harris et al., 2007). However, regardless of the configuration, the element of influence has surfaced with regularity as a constituting component (e.g. Gronn, 2002; Hallinger & Heck, 2010; Printy, 2010). Other important conceptualizations, such as, conjoint agency (Gronn, 2002), mutuality (Printy, 2010), or reciprocal processes (Hallinger & Heck, 2010), are offered as mediating the expansion of traditional models of formal authority's (e.g., the principal's) positional power (Klar et al., 2016).

Other scholarship about distributed leadership raises concerns about the complexity of shared power and expertise as an exercised of micropolitics (Crawford, 2012; Flessa, 2009; Lumby, 2013; Tian, Risku, & Collin, 2016; Supovitz & Tognatta, 2013). Among the concerns, the degree to which formal authority figures can frame any situation to their advantage either for purposes of exercising personal protection or in an overprotective effort to secure good outcomes for others, the danger is unilateral actions and manipulation (Coburn, 2006; Flessa, 2009, Lumby 2013). Associated with these untoward unilateral persuasions is the overlay of context, the cultural practices of the organizations (Coburn, 2006; Grint, 2005; 2008).

The cultural overlay for principals in South Carolina is associated with its educational policy and political culture as U.S. educational procedures are reserved to each state's legislatures and agencies, making educational culture essentially local (Marsh & Wohlstetter, 2013; Marshall, Ryan, & Uhlenberg, 2015; Schafft & Biddle, 2013). South Carolina's political culture stems from its colonial charters and its ongoing

struggles with the legacy of slavery and racism (Grose, 2006; McDaniel, 1984; Walker, Richardson, & Parks, 1992). By many analyses and accounts, South Carolina has a traditional, hierarchical culture promulgated through its public schools (Bartels, circa 2005; Elazar, 1972, 1994; McDaniel, 1984; Lindle & Hampshire, 2017). The six principals' recollections of both successful and unsuccessful practices associated with instructional issues support the traditional hierarchical political culture of their school districts and the state. Oddly enough, the long-time claim of South Carolina's devolved educational authority to *local control* (McDaniel, 1984; Walker et al., 1992) may not be sufficiently localized as district offices and formal leaders seem to avoid involving those most expert in the instructional processes at the secondary school level, teachers and department chairs. The wicked problem of improving instruction and learning needs the collective expertise within the building and its classrooms (Grint, 2005; Leithwood & Steinbach, 1995; Spillane et al., 1999, 2003).

Narratives collected for this study referred to collaboration and referenced to some sort of regular interactions of leadership (e.g., Mark's reference to meeting weekly with his administrative team). But still, none discussed a regular gathering of multiple perspectives (administrative, instructional, parental, community, support staff) to ascertain what challenges to increased student achievement may be most pressing and what responses might be most effective in meeting those challenges. Promotion of this type of collaborative problem-solving structure could provide innovative avenues to address student achievement issues.

The interview responses for five of the six principals mentioned South Carolina's End of Course Examination Program (South Carolina State Board of Education, 2016), more commonly known as EOCs. These five narratives contained 35 references to EOCs, and most had bearing on the principals' problem-solving scenarios about instructional issues. Notably, these exams carry accountability consequences for both schools and students, and as importantly, judgments about the effectiveness of the school leader. Prior research, particularly Leithwood's series of studies with other colleagues (Leithwood & Steinbach, 1995), suggested that novice or typical principals tended to analyze problems' potential effects on themselves. The overwhelming mentions of EOCs in these CIT responses may indicate a level of self-preservation attached to maintaining acceptable levels of student performance on these exams. A sense of high personal stakes may discourage school principals' investigation of more innovative practices for student achievement as well as limit who else might be involved in addressing these scores (Looney, 2009; Ruairc, 2009). Other educational accountability studies have raised questions about unintended outcomes to high-stakes accountability, arguing that instead of improving instruction, it effectively circumvents it (Amrein-Beardsley, 2009; Kavanagh, & Fisher-Ari, 2020; Brewer, Knoeppel & Lindle, 2015; Kelley & Dikkers, 2016; Louis, Leithwood, Wahlstrom, & Anderson, 2010; Salisbury, Goff & Blitz, 2019).

Recommendations for Further Research

I undertook this study to better understand principals' problem-solving processes by asking principals to provide their perspectives on how they approached problem-

solving involving instructional issues. The findings of this current investigation were supported by the commentary found in the literature review in Chapter 2.

My investigation found that principals were more likely to interpret problem-solving in ways that allowed a traditional, authoritarian, top-down means of introducing and implementing solutions. Almost all scenarios provided by the participants focused on the introduction of instructional models oriented towards improved student achievement which originated outside the school from the hierarchy of SC public schools, either the SCDOE or the district office. In addition, these instructional models were all decided upon by the principal, either in collaboration with the district or as an individual decision. In addition to reliance on the hierarchy of the SC school system, principals often used command approach in establishing the program's suitability to the situation, that is, enlisting others in administrative positions rather than eliciting classroom or department chairs' content expertise.

These findings aligned with Grint's (2005) work which suggested an addiction to Command (Grint, 2010b). Of the six principals participating in this study, five principals began with stories involving implementation of some sort of innovative program to improve instructional practice. Of those five, four tied the practices to improved test scores. Three of the four specifically referring to EOC scores and the recognized need for improvement. Grint (2005, 2010a, 2010b) lays a great deal of groundwork for the view that decision making is not always about leaders interpreting the situation correctly and consequently providing a suitable solution, but how the situation is interpreted by leaders so that the solution is clear, at least to the leader. Following a more authoritative or

command type style narrows the scope of the problem to the point that few solutions are viable, except for the one(s) the leader brings to the table (Grint 2005, 2010a, 2010b). Given that the leaders in this study portrayed a propensity to default to a more authoritarian style (Grint, 2005), but operate in a context defined by normative standards requiring a more collaborative style (Grint, 2005), future research needs to extend investigation to any school-associated collaborative structure (e.g., school councils, PTO representatives, parent and community groups, etc.) to see what can be learned from principals' interactions in those contexts.

A second recommendation regards principals' ability to reflect on their problem-solving experiences. Among the 12 accounts I gathered, only five provided detailed descriptions of their interactions with other school-based personnel. Mary provided very specific details regarding both her successful and unsuccessful incidents. Meanwhile, Matthew, Mark, and Paul only provided significant details about engagement with school personnel regarding their successful incidents. Luke and John provided much more vague accounts, even with probing follow-up questions, of both types (successful and unsuccessful) incidents than did their colleagues.

Work undertaken by Leithwood and associates (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991, 1995) and also extended by Spillane and others (Brenninkmeyer & Spillane 2008, Spillane et al., 2009) contended effective principals reveal higher levels of reflection. While this is not meant to categorize the participants as more or less effective, it is to bring attention to the need for a greater capacity among school leaders to engage in reflective practices. Future research may benefit from this

current research and extend it to determine what life experiences or formal training school leaders have that may contribute to this reflective process.

A final suggestion to extend this study pertains to the limited number of participants. Of the six principals included in this research, all were Caucasian, five of whom were male. Future studies may greatly benefit from additional perspectives gained from people of color in the principal's position. Additionally, regarding the wide variance in the racial makeup of South Carolina schools (South Carolina Department of education, 2018) future researchers may glean additional knowledge by investigating principals who do not identify as the same race as most of their students. While one female principal provided a narrative for these results, additional research regarding the problem-solving perceptions of female principals may also prove valuable.

Chapter Summary and Conclusion

This chapter described the findings of this study in relationship to literature provided in Chapter 2. It began with a discussion of the overall findings. Following this were my recommendations for practice, concluding with the implications for additional research.

In conclusion, despite decades of research around instructional leadership effectiveness, there is meager documentation of how and why school leaders practice their craft as they do (Leithwood & Steinbach, 1995; Neumerski, 2012; Spillane, 2005). This investigation into principal's narratives and reflections about their collaborative interactions with other school leadership provided insight into this domain of leadership performance. Each principal expressed a desire for students in their school to have

equitable access to quality instruction and recognized that quality teachers and diverse opportunities for student success are imperative to this goal. However, I did not find implementation of collaborative problem-solving strategies. Principal selected scenarios described implementation of district or principal selected instructional strategies and they limited their descriptions of collaboration to the mechanics of program enactment. Several principals were able to provide clear details of their successful collaboration. Only one of the six principals provided extensive details of the unsuccessful collaboration.

The findings of this study added to the current knowledge base on the following ways:

- current mandates for accountability may unduly influence decision making at the district or school level and/or suppress innovation.
- understanding of a distributed framework for leadership as defined by Spillane et al. (1999, 2001, 2004) is insufficient at the school level.
- principals' reflective practices should be a focus of continued examination and development.
- attention to expanding the boundaries of involvement in school-based problem-solving may improve schools' capacity for improvement.

The findings from theses interviews with secondary school principals may provide an increased realization of the influences and limitations which constrain current models of school leadership.

APPENDICES

Appendix A

Terms Used in Search for Relevant Literature

- authority styles
- collaborative leadership
- decision-making processes
- distributed leadership
- effective schools
- influence
- instructional leadership
- leadership effectiveness
- micro-politics
- participative leadership
- principal cognition
- principal collaboration
- principal leadership
- problem solving
- school collaboration
- school leadership
- school management
- shared leadership
- shared decision-making
- teacher leaders

Appendix B

Permission to Replicate Copyrighted Material

Permission to use Figure 2.1

September 7, 2016

Keith Grint
Professor of Public Leadership
University of Warwick

Professor Grint:

I am a PhD candidate of Clemson University and I would like permission to duplicate and distribute the following work:

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Material to be duplicated: Figure/Graphic; Typology of problems, power and authority
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Copies of the material described above will be distributed in connection with my dissertation proposal and later in my defense of the dissertation. Afterwards, the study will be published on Clemson University's website for theses and dissertations.

If you agree to allow this use, please sign where indicated below and return via email. If you are not the owner of the copyright in this work, I would be grateful if you would reply to this email with the owner's contact information. Thank you for your assistance. If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

Don Lawrimore
Candidate for PhD, Clemson University

By signing below, I signify that I am the owner of and give permission for the use of the content described above.

8/9/16

Name Date

Appendix C

Recruitment Email

Dear [*principal's name*],

My name is Don Lawrimore and I am a graduate student at Clemson University. I am conducting research with Clemson faculty member Dr. Jane Clark Lindle (contact-jlindle@clemson.edu). My investigation will explore principals' perceptions of their problem solving experiences. This research could benefit the academic community by providing insight into the problem-solving domain of leadership practice. As few studies exist that focus on secondary school principals' experiences, the results from this research could provide a basis for future investigations. Currently, I am preparing to collect research data and have contacted you asking for your assistance.

Should you choose to participate, your part in the data collection process would be to provide two different scenarios from your experiences as a principal. These two scenarios should describe your problem-solving interactions with other school-based leadership (assistant principals, department chairs, content specialists, lead teachers, etc.). We are interested in problems about curriculum and instruction rather than problems with facilities, discipline or other issues. This study focuses on problems about teaching and learning. Specifically, these narratives would provide your response to the following prompts.

1. Tell me about a time when you worked with others in your building to solve a school level instructional or curricular problem that you feel was successfully resolved.
2. Tell me about a time when you worked with others in your building to solve a school level instructional or curricular problem that you feel was not successfully resolved.

With your permission, these narratives will be digitally recorded. Saying no to the recording will have no effect on the interview, and instead I will take notes. Once completed, you will receive a copy of the transcript (or notes) to review and edit. Once the amended transcript is returned, the digital recording will be destroyed. The interview may take between 45 and 90 minutes. Your total time commitment including the transcript review should be two hours but likely less.

To provide confidentiality, you will be asked to provide a pseudonym for yourself, your school, and your district. If you prefer, I can choose pseudonyms for you. As you describe your two situations, we ask that you refer to school staff by roles or job titles rather than their names. The notes, recordings, and transcripts will be kept in a cloud-based or portable drive with password protection. Should you choose to participate, I also encourage you to consider using your personal email or phone for future communication. Your positive reply to this email will serve as your permission to communicate with you

directly regarding this research. I will then contact you by phone to answer any additional questions and discuss a time and place of your choosing for the interview.

I appreciate your consideration of participating in this project. I realize how valuable your time is. Thank you in advance, and I look forward to hearing from you.

Regards,
Don Lawrimore
Graduate Student, Clemson University
Email: dlawrim@clemson.edu
Phone: 803-924-6700

Appendix D

Principal Interview Protocol
IRB2018-396

Date of Interview:_____ **Location Type**[1]:_____

Participant ID code[2]**:**_____ **Interview Start Time:**_____

Interview End Time:_____

Script:

Thank you for meeting with me [*principal's name*]. Dr. Jane Clark Lindle, a faculty member at Clemson University, and I, a Clemson University student, are investigating the problem-solving experiences of secondary school principals working with other school-based leaders. Your views matter and there are no right or wrong answers to any of these questions because few studies exist that focus on secondary school principals' experiences.

Your participation in this study may involve up to two hours of time. This includes both the interview and time you may take to review and edit your transcript. This research could benefit the academic community by providing insight into the problem-solving domain of leadership practice. Additionally, the results from this research could be used as a basis for future studies. There are no known risks to the research. In the interest of confidentiality, neither your identity, personal information, nor any identifying information about your school or district will be disclosed in any reports. The notes I take during the interview as well as the transcripts will be stored in a secure location. You have a right to revoke your permission to participate at any time in this process. If you choose not to participate there are no repercussions, and all the notes, recording, and transcripts will be destroyed.

Since time is important, I'd like for us to go ahead and begin the interview, with your permission. Do I have permission to audiotape our interview? ____ yes _____ no
(If no, then proceed with note-taking)

I sent you the two primary questions for this study earlier. Did you receive those?
____ yes _____ no

[1] Location Type = office, restaurant, etc.
[2] Participant ID code = Temporary code based on selection criteria --- to be changed to selected pseudonym by end of interview/contact

(If yes, continue with the interview. If no, provide the prompts and ask if the participant would like to reschedule to allow adequate time to consider which incidents are to be used.)

Once we begin the narrative, I may ask additional questions. I ask to ensure clarity or to maintain the focus on interactions here at school. Remember because this study can reveal new knowledge, there are no right or wrong answers. Details are important.

Do you have any questions or concerns you would like to discuss before we start? (Answer questions and address concerns, if any.) Note such here:

First, to protect your confidentiality, what name, other than your own, may I use for you? (If you don't have a preference, I will assign you a name for the purposes of this study.)

_____

And similarly, do you have a name you would like me to use for your school, other than its real name? (Again, if you don't have a preference, I will assign the school a name for the purposes of this study.)

_____

Also, I need a pseudonym for your district, other than its real name, but if you would prefer, I will give it a name for this study.

_____

Finally, in the process of answering my questions, I may interrupt if you use a person's name. I will need to know that person's role or job title for this study. Even with that caution, it's possible that both of us will need to change names into roles or job titles when I share the transcript with you.

Here's our starting point:
Tell me about a time when you worked with other leadership in your school to resolve an issue and you felt it was resolved successfully.

Possible Probes

1. What led up to that event?

2. What/Who was driving this decision?

3. Who was involved? [please use professional roles or titles rather than names]
4. What happened next?
5. How did the group react?
6. What was the outcome?
7. [How did that make you feel? Why?]
8. [How did that make them feel?]
9. Could that process have been more productive? If so, how? If not, why?

Thank you. That was much appreciated. Do you need a break before we continue?
(Break, if needed.)
Are you ready to talk about your second story?

Tell me about a time when you worked with other leadership in your school to resolve an issue and you felt it was not resolved successfully

Possible Probes

1. What led up to that event?
2. What/Who was driving this decision?
3. Who was involved? [please use professional roles or titles rather than names]
4. What happened next?
5. How did the group react?
6. What was the outcome?
7. [How did that make you feel? Why?]
8. [How did that make them feel?]
9. Could that process have been more productive? If so, how? If not, why?

Thank you for that information. As soon as a transcription of today's narratives is available, I will forward it to you as an email attachment. This will give you an

opportunity for review and editing. Our goal is to create the most accurate reflection possible. After that email, I will wait about 7-10 days and then check your progress. Once I receive any final revisions, your part in this will be complete. At that time the digital recording of your narrative will be destroyed. Do you have any questions for me before I leave? In case you have questions later, I would like to leave my contact information as well as Dr. Lindle's. Please do not hesitate to contact us regarding the research should the need arise. Thank you again for meeting and contributing to this work.

Appendix E

Field Notes Template

Field Notes

Principal Problem-Solving

Researcher: Don Lawrimore

Participant:_____

_____

Time: _____ Date: _____

Location/Setting:_____

Overall thoughts on interview, including environment?

Reflection on my interviewing/facilitation of interview?

Reflection on potential biases?

Changes for future interviews?

Tentative codes?

Appendix F

Institutional Review Board (IRB) Approval

Don Lawrimore

From: Nalinee Patin <npatin@clemson.edu>
Sent: Friday, October 26, 2018 6:14 AM
To: Jane Lindle
Cc: DLAWRIM@clemson.edu; Don Lawrimore
Subject: Exempt Determination for IRB2018-396: School-based Instructional Leadership and Problem Solving...

Dear Dr. Lindle,

The Clemson University Office of Research Compliance reviewed the protocol titled "**School-based Instructional Leadership and Problem Solving: Principals' Descriptions of Shared Issue Resolution**" and a determination was made on October 25, 2018 that the proposed activities involving human participants qualify as **Exempt under category B2** in accordance with federal regulations 45 CFR 46.101, http://media.clemson.edu/research/compliance/irb/exemption-categories.pdf.

No further action, amendments, or IRB oversight of the protocol is required except in the following situations:

1. Substantial changes made to the protocol that could potentially change the review level. Researchers who modify the study purpose, study sample, or research methods and instruments in ways not covered by the exempt categories will need to submit an expedited or full board review application.
2. Occurrence of unanticipated problem or adverse event; any unanticipated problems involving risk to subjects, complications, and/or adverse events must be reported to the Office of Research Compliance immediately.
3. Change in Principal Investigator (PI)

All research involving human participants must maintain an ethically appropriate standard, which serves to protect the rights and welfare of the participants. This involves obtaining informed consent and maintaining confidentiality of data. Research related records should be retained for a minimum of three (3) years after completion of the study.

The Clemson University IRB is committed to facilitating ethical research and protecting the rights of human subjects. Please contact us if you have any questions and use the IRB number and title when referencing the study in future correspondence.

All the best,
Nalinee

Nalinee Patin, CIP
IRB Administrator
OFFICE OF RESEARCH COMPLIANCE
Clemson University, Division of Research
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P: 864-656-0636
www.clemson.edu/research

APPENDIX G

Principals' Definition of the Problem

	Definition of Problem - Successful Resolution
Mary	"I was starting to hear a lot about student apathy, and lack of engagement, and um, you know, just that the kids just, they weren't interested in learning. They weren't motivated to learn and that was something that I've begun hearing a lot of."
Matthew	"Because as I said, our EOC scores have struggled in those areas and they know, just as I know, that we need to work on something to try and bring those scores up."
Mark	"So, as a district we made a decision to explore Personalized Learning about two years ago. As a school. We have been on a journey, learning and discovering more about Personalized Learning, what that means and what that looks like in the classroom."
Paul	"The ultimate goal of what we were trying to do is create collaboration between teachers that allow them to share curriculum, to discuss assessments, and to make good decisions about how a class like US History, that has an EOC exam, which is what we would consider a high stakes class; how do we get students to have a high quality education regardless of the teacher of the class that they're in?"
Luke	"But [the program implementation] happened so quickly. Like my teachers weren't overly prepared. And so the science and math is basically module based. And so when you have kids coming in who are already lacking and you're sticking them on a module, it just wasn't the best situation for them."
John	"So we had some young, energetic, but inexperienced guidance counselors. Their role is to help teach the students to understand the course progression, which courses to take. And to get that information out to all the students was scary for these new guidance counselors."

	Definition of Problem - Unsuccessful Resolution
Mary	“For us, it's our ELL (English Language Learners). They don't do well on an English I EOC. They don't do well on any EOC. I mean they just don’t, and it is hard when those are the data points that they're using to compare us to schools like [nearby affluent school] who might have three ELLs in the entire school.”
Matthew	“Well, and obviously this was done to, to try and save money cause you're losing staff members. It's trying to get more out of our teachers. It's like squeezing that orange until you can't get anything else out of it.”
Mark	“We had kind of dabbled a little bit in Project Based Learning (PBL).” “We wanted to kind of expose teachers to PBL as a different way you can go about getting the same result that you want.”
Paul	“It is not anything other than a way to help, particularly our younger teachers because lots of them want feedback and it's difficult for us to schedule that time and to get into classes the amount that we want to.”
Luke	“Last year we had a teacher shortage and I had about 20 classes online. And so I had all of these classes, Algebra, Algebra 2, Geometry and Probability/Stats all online.”
John	“But my English department is split on this one. Part of the department believes in using a set vocabulary book. But then on the other side, I have another group of teachers that say… everything should come from whatever you're reading.”

APPENDIX H

Principals' Description of Initial Problem Solving Strategies

	Initial Steps in Successful Resolution
Mary	"That's when I had to start making some decisions in terms of, okay how do I want to roll this out? Who am I going to include? What's the timeline for doing it? So that's when a lot of those decisions were taking place. And ultimately a lot of those decisions were made, I made a lot of those decisions but as I decided what the core should be, I then began bringing people in to help me."
Matthew	"It actually started with our administrative leadership team for the district…. We all started talking about it and felt like this would be a good thing to do with our teachers as well. So I then get a couple of my assistant principals. We get together. We pull all the teachers that will be teaching those classes that I mentioned, and we train them on it."
Mark	"So, as a district we made a decision to explore Personalized Learning about two years ago." "What we did together is we created a plan to provide teachers with an experience that we want ultimately for students to have."
Paul	"All right, so in making that decision, I sat down with both of my assistant principals and said, "Guys, we know where we want to go. We know what's important. We have to put teachers in the same place at the same time with a common goal of how to make instruction quality across. How do we do that as an administrative team?" And so everyone had a voice in that."
Luke	"And so I made my teachers, we went and visited Morten Mississippi… We visited Nashville, Georgia, to look see what they were doing. And we learned a lot. And so we came back over the summer. They were great. I didn't pay them, but they came in over the summer. We worked everything out. I said, this is how we're going to collect our data. This is how we're going to make sure they're learning. This is how we're going to group our students and if we need to change the grouping, we'll change the grouping."
John	"But I wanted all the teachers to see the success and almost to take ownership in the students. So what we ended up doing from that - is that I wanted to improve the culture of the school. So we created, I say we created this, it's out there. We have what's called student advisories. Now, the way that it originally started was that we identified what the problem was and meeting with my two assistant principals. We also took into account guidance counselors and what guidance needs to do. We were able to ask; how do we want these advisory classes to go? How are we going to develop these classes?"

	Initial Steps in Unsuccessful Resolution
Mary	"So, I started brainstorming ways that we can use the Diploma Pathways legislation to help meet the needs of this unique group of students. So I got together with our director of curriculum instruction and the English department chairperson. We sat around this table and brainstormed what we could do using Diploma Pathways."
Matthew	"And again, this was a decision that was made by the district leadership team. I think it probably started back around 2009 when the budget was really, really bad…. So we kind of brainstormed to find out, okay what can we do? We were currently on a block schedule then, a four by four block. What can we do? What can be done to try and maximize teachers and ensure that they still get a 60-minute planning every day but be able to provide more sections for students."
Mark	"We had one teacher that was very interested. So, what we were going to do is we took on a PBL topic with one of her classes. We did not... We spent a little time planning on the front end, and then we went ahead and implemented it."
Paul	"So that's where the genesis came from. And I didn't get that idea from my APs, but I went to my APs and said, this has happened. As I was working on the schedule, I noticed that I could put a hole there and allow her to help us in some of the things that we do. They both have a lot of respect for this teacher as well, and so they did that. They said, "Yeah, let's give that a try."
Luke	"Basically, they saying they're cheating. So I was able to hire a teacher from another online service [for Algebra I & Algebra II]. I had to put a 'special ed.' teacher in in the lab in the Media Center with Geometry."
John	"My English department is split on this one. Part of the department believes in using a set vocabulary book. But then on the other side, I have another group of teachers that say … everything should come from whatever you're reading. And so we were trying to bring in the vocabulary books and some would sit on shelves and it was a waste of money. Then other ones were using it. "

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