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Exploring the Capacity Development of Novice School Administrators:

It's Not Only Where Capacity Sources Are Accessed but Also How

Aaron Ross Wilson

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Education

Sterling Clint Hilton, Chair David McKay Boren Scott Ellis Ferrin Pamela Rust Hallam Earl Vance Randall

Department of Educational Leadership and Foundations

Brigham Young University

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ABSTRACT

Exploring the Capacity Development of Novice School Administrators: It's Not Only *Where* Capacity Sources Are Accessed but Also *How*

Aaron Ross Wilson
Department of Educational Leadership and Foundations, BYU
Doctor of Education

Although many school districts provide inservice professional development to build the capacities of novice principals, some of these supports are proving inadequate in recruiting or retaining qualified leaders. Research on capacity development for novice principals is scarce, yields mixed results, and employs methodology which has invited participant response bias. Reflecting the school level, gender, and Title I experience of novice principals within a large school district in the mid-Western United States, a sample of 24 novice principals respond to semi-structured interview questions. Iterations of transcription coding, member-checking, and analysis yield findings that help school districts better understand the capacity development process of novice principals studied. Novice principals in this study identify facing managerial problems more than instructional or student-related demands. While addressing various demands they face, novice principals draw less on their knowledge or skillsets, but rely much more on their dispositional capacities. In citing sources that developed their capacities to meet these various professional demands, principals ascribe professional sources only slightly more than personal sources in having built their capacities. Further inspection reveals that the sources of capacity development are not as influential as the types of capacity-building through which administrators learn: regardless if the capacity source came from their personal lives or professional careers, principals ascribe their capacities being built primarily from experiential learning, and the constructed learning from passively observing competent models. This preference of certain types of capacity development greatly influence how new principals learn, and has greater effect over capacity development than the source of that capacity, or where the capacity gained that capacity. This held true even when considering all types of demands to which administrators apply these capacities.

A principal's job requires skillsets beyond instructional leadership alone. This is especially true as districts embrace an emerging conceptualization of school leadership that posits a principal's influence on student learning is greatest when applied through intentional, learning-driven organizational management. In focusing solely on principal skillset and knowledge development during trainings, districts neglect the capacity domain that principals utilize most often in addressing demands, which is also the capacity domain through which their knowledge and skills are operationalized: their dispositions. Knowing that principals ascribe certain *types* of capacity building as the key factor in their development rather than the *sources* of their capacities, school districts can better embrace, systematize, and leverage these types of capacity development. Such adjustments will more directly and effectively target the capacity development of novice principals, enabling them to address the professional demands they face.

Keywords: principal development, leadership development, capacity building, professional development, principal inservice, school districts

ACKNOWLEDGMENTS

Above all, my wife. My silent champion, she wrestles three small tornadoes year in and year out, endures long nights and weekends, all to support slow beat of progress. A banishment to the study, an encouraging word, a proponent of balance—she proffers the right action in its needed time.

To a mother, father, and lineage of matriarchs whose loyal support knows no bounds. Each left indelible impressions on me, culminating in the self-efficacy to pursue lofty goals. To them, a lifetime doesn't afford sufficient time for my thanks. But instead, a commitment to reflect this love downward to posterity.

Such a lineage now includes James, Andrew, and Evan. Their understanding of me needing to do my homework instead of wrestling them has shown patience and grace well beyond their years, appreciated second only to their willingness to "help me" type. With my thanks to them comes a commitment that no future endeavor will ever appear to take such precedence, and to talk them out of such an enterprise.

To a dissertation committee that represent all that is good in academia: a desire to help students be their best, to expect nothing lesser, all with an encouraging word. A chair in particular who inspires me to tackle every problem in education—one construct at a time. To me, their continued and thoughtful guidance refines not only my dissertation, but also that which endures beyond a degree.

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DESCRIPTION OF DISSERTATION STRUCTURE

Written in a hybrid format, this dissertation, Exploring the Capacity Development of Novice School Administrators: It's Not Where Capacity Sources are Accessed but How, marries the Department of Educational Leadership and Foundation's requirements with those of Educational Administration Quarterly (EAQ), my targeted journal of choice. The article length of EAQ is 25-40 pages, written in American Psychological Association (APA) style.

Introductory pages to this dissertation, including Abstract, Table of Contents, List of Tables and Figures, and this Description of Dissertation Structure, are offered in fulfillment of university submission requirements. Subsequent pages are presented in conformity with submission guidelines to my desired journal.

An extended literature review is included in Appendix A and includes a reference list for this extended literature review. Appendix A is followed by Appendix B: an extended methods section, inclusive of a reference list for this extended methods section. Participant consent forms are included in Appendix C. Appendix D includes various instruments created for this study. Appendix E includes IRB approval forms, as well as approval forms from the school district granting access to interview its novice administrators.

This dissertation contains three reference lists. First, there is a journal-ready list prepared for an upcoming article submission. The second and third reference lists, described above, are included within Appendix A and Appendix B.

Introduction

Principals can exert a large degree of influence over the schools they lead (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007; Louis, Leithwood, Wahlstrom, & Anderson, 2010) and are a key lever in education reform (Fullan, 2010; Sun, 2011). Their influence is especially felt on school culture (Leithwood, Louis, Anderson, & Wahlstrom, 2004), through retention of effective teachers (Betielle, Kalogrides, & Loeb, 2009), on school organizational structures (Elmore, 2005), and by indirectly creating classroom conditions for learning (Leithwood et al., 2004). Principals are an integral components of school reform; "there are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader" (Leithwood et al., 2004, p. 5).

The power of leaders to turn schools around and lead education reform largely depend on their individual capacities. These capacities include not only principals' knowledge (what they understand) and their skills (what they can do), but also their dispositions (what they value, believe, and expect). Various notions or emphasized components of principal capacity have been explored in literature, referred to as principal "quality" (Grissom & Harrington, 2010), "effectiveness" (Anderson & Turnbull, 2016), "skills" (Sun, 2011), "efficacy" (Louis et al., 2010), "capabilities" (Fink & Resnick, 2001), but most often, the subsuming construct of "capacity" is used (Fink, 2011; Hallinger & Lee, 2013; Johnston, Kaufman, & Thompson, 2016; Leithwood et al., 2004; Nicholson, Harris-John, & Schimmel, 2005; Turnbull, Riley, & MacFarlane, 2013).

A principal's capacity becomes the distinguishing factor between a school leader able to produce desired educational outcomes and a school leader who cannot. There are "important links between principal quality and school performance" (Grissom & Harrington, 2010),

significant and indirect links between a principal's enactment of roles and student learning (Leithwood et al., 2004), and apparent links between a principal's capacities and the success of his or her school's reform efforts (Darling-Hammond et al., 2007). In short, as principals develop and exercise their capacities, they can promote desired educational outcomes, including student achievement; conversely, without needed capacities they can negatively affect student learning (Waters, Marzano, & McNulty, 2003), as well as adversely affect other school outcomes.

Appreciating the pivotal role principals play and the influence they possess, and realizing this influence rests on principals' individual capacities, school districts seek to understand which capacities of principals must be strengthened to facilitate desired educational outcomes. Because of the complex and changing nature of schools, the answer to this question is unclear, creating frustrations for novice principals and school districts alike. "The role of principal has swelled to include a staggering array of professional tasks and competencies" (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005, p. 3), including being "budget analysts, facility managers, special program administrators, and community builders" (p. 1), as well as "disciplinarians, ...public relations experts, ... and expert overseers of legal... initiatives" (Davis et al., 2005, p. 1). Fullan (2010) adds that the principal is the gatekeeper of school culture, a school buffering agent, the one responsible for staff corrective action, as well as a recruiter of talent. And even though these varied responsibilities for principals "exceed the reasonable capacities of any one person" (Davis et al., 2005), they keep expanding with nothing being taken off their plates (DiPaola & Tschannen-Moran, 2003).

Attempting to build the needed capacities of future administrators, Horng and Loeb (2010) note that "many new principal preparation and development programs emphasize the role of principals as 'instructional leaders," when such a focus neglects the other roles principals

assume. They continue to observe how this approach is "poorly suited to the reality of many of today's schools," calling for "a different view of instructional leadership emphasiz(ing) organizational management for instructional improvement rather than day-to-day teaching and learning" (p. 66). While Darling-Hammond and colleagues (2007) note the existence of exemplary preservice programs that "develop the complex skills needed to lead and transform contemporary schools" (p. 24), these programs are uncommon. Worse yet for new principals still in need of adequate training, "their own districts don't do nearly enough to prepare them for their roles" (Darling-Hammond et al., 2007, p. 1) once they are on the job. Without surprise, novice principals quickly burn out, move schools, or simply do not enter the principalship to begin with (Darling-Hammond et al., 2007; DiPaola & Tschannen-Moran, 2003). These trends of principal attrition paint a bleak picture for school districts. Without ongoing district training that builds their capacities to meet their many challenges, these "promising leaders... are... prematurely discouraged" (Turnbull et al., 2013, p. 39) and leave the profession.

Providing adequate training and support for administrators entering the profession is a mantle shared by universities and school districts alike; however, districts have opportunities to build principal capacities simply not afforded through preservice education because they are able to support and guide principals *during* the enactment of their roles, adapting the supports the principal receives to meet the professional demands he or she is currently experiencing. Even with the added opportunity they have over preservice programs in being able to provide flexible inservice training and support to school leaders, districts struggle to identify which *types* of supports are most effective in building the capacity of new principals. With inservice professional development being "less studied and less regulated" than preservice training (Turnbull et al., 2013, p. 39), school districts find sparse research on which to base their

supports. "Many school districts are... working to support administrators once they are placed in schools. However, relatively little is known about the types of inservice supports currently available to school leaders" (Johnston et al., 2016, p. 1). Worse still, the authors note that results of those few available studies regarding the effectiveness of supports for novice administrators are mixed (Johnston et al., 2016), leaving school districts to themselves in developing supports that can effectively build the needed capacities of novice principals.

Seeking information that would improve their inservice trainings and other supports, districts seek input from their novice principals, asking them to identify the extent to which various supports have built their respective capacities. Because this information is solicited primarily through surveys (Anderson & Turnbull, 2016; Johnston et al., 2016) which are populated with presumed capacity categories rather than collecting data through in-person interviews with novice principals, the survey responses are laden with "upward bias" (Turnbull et al., 2013, p. 14) which favor the responses provided as survey options and omit other possibilities. In other words, the capacity sources which district administrators identify through surveys paint only a partial picture of the process of capacity development since this data is not contextualized by other capacity sources to which new principals turn.

With research tools and methods that do not match the complexities of the phenomenon they seek to explore, districts draw potentially misleading conclusions about the sources of capacity utilized by novice principals. Professional supports for new leaders are then based on these inaccurate assumptions about which sources of capacity are used, resulting in supports whose design fail to meet principal needs. As novice leaders find their actual needs unmet, they turn to other informal sources of capacity-building, even if it "means that principals must rely on 'on-the-job [trial and error] training' for their most effective professional development training,"

(Brown, Anfara, Hartman, Mahar, & Mills, 2002, p. 21). Consequently, the positive potential of these novice principals' influence on student learning is not realized until later in their careers, if at all.

Statement of the Problem

The purpose of this study is to better understand the self-attributed sources of capacity development of novice school principals in an effort to aid districts in providing more aligned and effective supports. To facilitate such increased understanding, this study is guided by several overarching research questions:

- What are the problems of practice that novice principals face?
- What types of capacities do novice principals draw from in solving these various problems of practice?
- What factors do novice principals identify in having developed their capacities needed to solve these problems of practice?

While the first two questions are explored in this study, they serve as important and precursory questions to understand the third question and the focus of this study: exploring the capacity sources of novice principals. Novice principals and the outcomes they seek constitute the *who* and *why* of principal capacity development. The focus of this study is exploring their needed capacities, the sources of these capacities, and types of capacity-building events found within these sources: the *what*, *where*, and the *how* of capacity development.

Methods

Setting

Mason School District (pseudonym) is a large economically and ethnically diverse school district in the Western United States. As one of a very few districts in the nation to receive a

multi-million-dollar federal grant for capacity development of novice leaders, Mason School District provides its novice principals with three years of intensive transitional training and supports for their respective roles, including individualized mentoring and career-staged professional development in cohorts.

Participants: The Who of Capacity Development

A sample of 24 administrators who had completed the three-year training was selected for this study with the intent of reflecting the gender (14 male, 10 female), school level (five high school, five junior high, 14 elementary), and Title I experience (nine Title I, 15 non-Title I) of all novice school-level administrators in the district. A complete summary of the demographic information of the sample is provided in Table 1. To keep the responses anonymous, all participants were given a unique pseudonym. This unique pseudonym is used whenever a participant's response is used to explain or illustrate a finding.

<Insert Table 1 here>

Approach and Procedures

Participants were interviewed by a fellow administrator familiar with the professional culture and practices of Mason School District. They responded to semi-structured, open-ended questions concerning the problems they face as a school leader, noting that these challenges can be positive or negative, singular events or ongoing initiatives, and these are issues that ultimately take up administrators' time, energy, and efforts. Participants were then asked how such problems were successfully addressed, as well as the capacities needed to facilitate the problems' desired resolutions. They were invited to list their capacities that have enabled them to address the problems they have faced as school leaders and to identify all the sources of these capacities, both professional (those acquired through their career in education) and personal (those not

acquired through their career). Responses to these questions generated data to answer the exploratory research questions posed in this study.

The interviewer was careful to not give affirming or condemning words or body language that would reinforce or discourage the content of participant responses. Interview questions included prompts that encouraged administrators to respond to the best of their ability, that reminded them there were no right or wrong answers, and that used language connoting respect for the work of administrators. To further invite open, non-guarded responses from participants that reflected their true experiences and insights, language in interview questions intentionally connoted a "sameness" between the participant and the interviewer.

Research Design

With design elements that ensure principals experienced minimal disruptions during the interview, felt comfortable responding to questions (both because of discussing responses with a fellow practitioner, and being assured that their responses would be anonymous), this study generated data most able to address the three research questions. Because the study is thus designed so that the researcher has what Shenton (2004) describes as "familiarity with the culture of participating organizations and tactics to help ensure honesty in informants" (p. 65-66), this data has strong elements of credibility. If surveys had been employed instead, the set of response options would have framed the principals' answers, which could restrict or bias their responses. Thus, while surveys would have allowed for efficiency in data collection, the resultant data might have been incomplete because the data collection tool did not match the depth of the phenomenon the researcher sought to explore (Patton, 2002), which in this study, is the development of principal capacity. What is more, participant responses in other studies relative to principal capacity-building may have been influenced by who was asking the questions. For

example, if a school district supervisor or non-trusted third-party evaluator was asking the same questions, participants might offer different responses, subconsciously or otherwise, because they are trying to match responses to the supposed goals of the evaluator, trying to make a supervisor happy, or because of a lack of trust in a third-party evaluator's ability to maintain confidentiality. Each potential data collection pitfall is avoided through this study's design.

One limitation of this study's research design is that all participants come from one school district; therefore, their responses are contextualized by a single organization's culture and specific practices. Choosing novice principals from this district, however, provides a unique opportunity to explore capacity development in novice principals because each participant received intensive supports during their first three years in their role or profession. Therefore, while administrators from other districts could have offered responses from other settings, they would not likely have the same level of capacity-building supports from which they could base their reflection. Also, this school district serves a very diverse socioeconomic makeup of communities which offers a wide range of challenges and issues for school principals to engage. Also, there is benefit to the interviewer being an administrative peer with these principals who had enjoyed prolonged engagement in this district with familiarity of the demands, as well as the operative language, culture, and practices that defines these novice principals' experiences. Such familiarity with Mason school district, while a limiting factor in some ways, yields some of the benefits of ethnography in providing deeper understanding of the phenomenon studied.

Limitations

Aside from having a sample of novice administrators from one school district, other limiting factors include using self-reflection as a data-collection tool. Self-reflection is not universally applied in research because it is time-intensive, and also because participants might

not likely identify all possible responses in their answers. While it is true that surveys allow for a more efficient identification of data, such as possible capacity sources, inviting participants to select responses from a list of survey responses often reminds those being studied of responses they "should have selected," but would not have been chosen if the data collection relied on self-reflection. Thus, while self-reflection is a limitation in data collection, it ensures that each response is identified by its own merit, without prompting or bias introduced by the research tool itself. And should some anticipated survey responses not be selected through self-reflection, this lack of identifying anticipated responses becomes an important finding in itself.

Data Collection and Analysis

The type of data collected in this study were responses offered by novice administrators who recently completed three years as a principal over a public school while receiving intensive, district-sponsored inductive training. During open coding using NVivo software, these responses were organized into nodes, sub-nodes, and grandchild nodes in various categories which evolved during iterations of coding and member-checking. For example, sources of capacity were initially coded as Direct Mentoring and Experiential Learning, categorized further as being Personal or Professional in nature. A third category of Indirect Mentoring was added to reflect the phenomenon of constructed mentoring administrators described as a source of capacity development. Later, Patron Role Socialization and Adherence to Value Systems were identified as capacity sources and created as category nodes. After several rounds of open coding, certainty levels expressed by administrators in their responses towards the capacity source being described were coded. Axial coding compared novice administrators' responses against demographic information collected, as well as comparing responses from one question against others.-This iterative process identified potential themes to explore using an identification

threshold of 50% of interview participants: at least 12 of the 24 principals must have included that data at least once in their response. Multiple responses within the same category by the same principal were noticed, but did not influence the determination of thresholds.

Completed interviews were transcribed, coded using qualitative analysis software, and member-checked for accuracy of not only the transcriptions, but also to confirm thematic coding. Fidelity to this interviewing and coding processes ensured consistent use of data collection tools and that participant responses were free from bias.

Findings

Problems of Practice That Novice Administrators Face

When asked during several open-ended prompts to list demands they face, the 24 novice principals offered 205 unique examples of problems they face while leading schools. These problems listed by novice principals clustered into one of three categories which emerged during coding and analysis: Managing an Organization, Addressing Instructional & Student Needs, and Mediating External Sources. These three problem-of-practice categories are treated as mutually exclusive in this study's analysis, and contain sub-categories outlined in Table 2.

<Insert Table 2 here>

All 24 novice principals in this study (referenced using pseudonyms) identified facing managerial demands. These problems are similar by their descriptions to what managers of organizations outside of education experience, such as responding to the needs of subordinates, navigating new workplace systems, hiring staff members, scheduling others' assignments, facilitating disciplinary action of employees for unprofessional conduct, completing required documentation and report deadlines, and budgeting. "We all have problems," Marjene, an elementary principal said. She continued, "We are all drowning in paperwork. We are all worried

about staffing. We are all worried about budgets." Marjene, like other novice principals in this study, has a strong instructional background as a former classroom teacher, yet has no formal managerial experience to draw from in her new role. The managerial demands she and other new principals face make it challenging to address other responsibilities. Joe, a high school principal, explains,

Some of the day-to-day stuff really tends to bog me down more than I would like it to. I would definitely like to get out and do more observations with teachers and spend more time with that, but the day-to-day work of having to go through and approve finances takes a good portion of the day.

This study finds that managerial issues are identified more than any other type of problem category with 47% of all problems listed by novice principals being managerial in nature. Principals are recognized as being instructional leaders who have the ultimate oversight over student learning and other needs, yet only 32% of problems, identified by 20 of the 24 novice principals, fell within this category. These demands, labeled Addressing Instructional & Student Needs, are unique to educational settings and relate to a principal's responsibility of developing teachers' instructional capacities, his or her systematic oversight of student learning, and the responsibility over students' safety and well-being (inclusive of student discipline). Principals in this study often describe these instructional and student issues as what most inspires them, yet lament how managerial issues seem to take precedence. Gwen, a junior high principal, reflects,

I guess I have this Pollyanna idea that I was going to be able to be this amazing instructional leader, spend time in the classrooms, you know. I always fancied myself a fantastic teacher, I thought I would be able to share all of the great things that I did with my teachers; 'It will all be fantastic!' And I find that a lot of times...[it] traps me in my

office because I will literally have lines with parents or after school, or during lunch I will have teachers lined up to talk to me about... issues or concerns they have.

Twenty of 24 novice principals in this study identified challenges that fall within the Addressing Instructional & Student Needs category, often with the same concerns about not having enough time to adequately do so.

Constituting 21% of all responses, the third problem of practice category identified in this study was Mediating External Sources, mentioned by 19 of the 24 participants. This problem of practice category speaks to a principal's role of acting as a paternal buffering agent in response to outside sources and influences from adversely affecting the school, such as sharing positive stakeholder input and shouldering negative community feedback. This problem of practice category also includes the active procurement of desirable influences into the school building, such as increased parental involvement and community partnerships.

The need to be appropriately responsive to the school's community is the demand sub-category identified more than any other by novice principals in this study with 14 of 24 new principals highlighting community responsiveness as a demand they face, whether the problem is real or perceived by community members. Diane, an elementary principal, notes that in mediating groups of people outside the school, principals must strategically address negative perceptions that exist. "If there's a not-so-great perception out in your community, you've got to change that perception and you've got to market that school."

During interviews, another novice principal, Larry, describes another type of issue found within the problem of practice category: the demand as walking the fine line of

Being in middle management, so to speak. Trying to be an active and on-board person with what the district wants to have and [with] the district vision, but yet being able to

understand the needs of the ground level with the kids and the teachers and being in between those two things: both sharing those challenges of the district and also having your school staff understand the district vision.

With novice principals in this study identifying a wide variety of challenges they face, this suggests that a corresponding variety of capacities is needed to resolve them successfully.

Capacities Identified by Novice Principals: The What of Capacity Development

After identifying several problems of practice they face and articulating what a successful resolution looks like to each problem, novice principals were then asked were asked to abstractly describe the capacities needed to address the problems of practice they had identified. Prior to asking this question, it was explained that one's personal capacity includes skills (what a person can do), knowledge (what a person has learned), and dispositions (what a person values, believes, and expects). After describing various capacities needed in the principalship, these novice principals were asked to identify the capacities they believe to be *their* strongest. Their responses were coded and it was discovered that administrators rely certain capacities more prevalently than others in addressing problems of practice. A summary of their responses is found in Table 3, and highlights how administrators heavily rely on their dispositional capacities, somewhat on their skills, and rarely on their knowledge in addressing problems of practice.

Dispositional capacities. In reflecting on the capacities on which they draw in addressing problems of practice, all 24 novice principals in this study claim that at least one of their capacities was dispositional in nature, sharing 172 examples (see Table 3). Even though there are various definitions of what constitutes dispositional capacity, disposition is widely accepted as one of three capacity domains, and in this study is defined as one's values, attitudes, values, and beliefs. In total, novice principals in this study identified dispositional capacities 59%

of the time when reflecting on capacities they possess that allows them to address problems of practice. Novice principals like Jesse, a novice elementary principal, rely on their dispositions more than their skills or professional knowledge. "I've always felt like my disposition for good or bad, has propelled me to my position way more than my knowledge or skills." He adds,

I wish a lot of times that my skills and knowledge were more equal. ...For me personally, I would not be in this position unless it was for my disposition. Because I don't have the skills and I don't have the knowledge to be in this chair.

<Insert Table 3 here>

Skill-based capacities. While dispositional capacities was the capacity domain identified most prevalently by novice administrators in this study, skill-based capacities were also significantly identified. Twenty-three principals believed that at least one of their capacities drawn upon to address problems was skill-based, offering 111 examples. During interviews, these skills were described by novice principals in ways that had their skills coded as being either relationship-based or task-based. First considering relationship-based skills, these capacities emerge during and because of interactions with others, including: ability to successfully network, effective communication skills with individuals, active listening, and being able to build others' capacity. In all, 20 out of 24 novice principals identified relationship-based skills as a strong capacity, sharing 66 examples like Diane's. A novice elementary principal, she describes how her relationship-based skills benefit those around her in them being more confident, and thus better able to do their jobs.

Making everybody feel important! It's important to me as a principal that everybody thinks that I think they're the best ever. There are teachers, kids, parents, and maybe I appreciate some of them more than others, but nobody would ever know that. And I take

great pride in that, that every teacher thinks that they are one of my favorites. They have to [in order] to be good at their job.... I think I do that well.

Task-based skills mentioned by new principals include: facilitating difficult group conversations, organizing one's own time and energies effectively, conveying clear intent in mass communication, identifying underlying issues, using data to drive decisions, following through, and problem-solving. Buddy, a novice elementary principal, suggests that in applying his task-based skills, he gains a measure of overarching confidence:

I feel like I can give everything I have day in and day out knowing that we are correctly identifying problems and working on resolutions together. I have no problem with persisting like that, and then to see us move forward.

In contrast to relationship-based skills which principals in this study describe as having the effects of these skills felt by their subordinates, the benefits of *task-based* skills are described by principals interviewed as primarily benefitting the principal himself or herself. Twenty of 24 new principals identify that they benefit from having such task-based skills, sharing 45 examples within this skill sub-category. Together, relationship-based and task-based skills constituted 38% of all novice principals' responses when asked in interviews to list the strong capacities they possess. Even though principals identified dispositional capacities 59% of the time, the finding that 38% of capacities are skill-based indicates that this capacity domain is still heavily drawn upon by new principals in addressing problems of practice.

Knowledge facets. Lastly, only five of 24 principals during interviews identified that a strong capacity they possessed was some facet of knowledge. Examples of the kinds of knowledge that these novice principals possess include: knowing and anticipating how people think and act, knowing core curriculum taught in classes, knowing how a school or district

system works, and having a knowledge of certain cultures represented within their student population. In sum, the capacity domain of Knowledge Facets constituted 3% of all novice principals' responses when asked to list their strong capacities. Constance linked her many years of teaching before administration to her current capacities as a new elementary principal. "I've taught for 25 years. I know the system." She continues to assert, "I know the curriculum. I know how to push education. I know the skills it takes to be successful and to move people to a higher level." Other principals who cited knowledge as a capacity source had above average years of teaching experiences and ages.

Capacity Sources and Types Identified by Novice Principals

In this study, the responses from novice principals during interviews give insight as to the *where* of capacity development and the *how* of capacity development. Within these responses, novice principals speak to prevalence of and certainty levels in these capacity sources. Capacity sources (the *where*) are compared against capacity source types (the *how*).

Professional and personal capacity sources: The *where* of capacity development. In addressing workplace demands, administrators accessed capacities which were developed both through professional as well as personal sources. During interviews, administrators described capacity sources that had been developed by means directly related to their profession. These were coded as Professional Capacity Sources, and include any experience, training, relationship, and event that occurred because of their profession within the field of education, inclusive of their experience as a teacher, administrator, and other school or district roles held. These novice principals described during their interviews capacity sources that were developed by means outside of their profession a total of 149 times.

Novice principals in this study also described capacity sources that were developed outside of their profession, yet were drawn upon in addressing workplace problems of practice. These capacity sources, coded as Personal Capacity Sources, were also identified by all twenty-four principals in this study, offering 140 examples. These personal sources can aptly be thought of as "non-professional" sources of capacity since they include all capacity sources not acquired in their profession, including previous careers, family relationships, value systems, education, and personal connections. A difference of only 4%, this study finds that novice principals identify Professional Capacity Sources 52% of the time, and Personal Capacity Sources 48% of the time in having built their capacity (see Table 4).

Various types of capacity development: The how of capacity development. Five types of capacity development emerged from novice principals' responses. These include "Learning by Doing," Modeling, Mentoring (Assigned as well as Non-Assigned), Perpetuation of Values, and Patron Role Socialization. Three of these capacity development types are identified from both these principals' personal and professional lives: "Learning by Doing," Modeling, and Mentoring. During these interviews, Perpetuation of Values is a capacity development type found only in participants' personal lives, while Patron Role Socialization is identified only in principals' professional careers. Together, these five capacity development types constitute the how of capacity development.

Considering the *where* of capacity development (Professional and Personal Capacity Sources), together with the *how* of capacity development (the capacity development types of "Learning by Doing," Modeling, Mentoring, Patron Role Socialization, and Perpetuation of Values), we find nine mutually exclusive capacity-building categories described during interviews, listed in their order of prevalence (see Table 4).

- 1. Professional "Learning by Doing:" capacity-building received from experiential learning during a novice principal's on-the-job experience, received without networking and without having a model from whom behaviors were patterned.
- 2. Personal "Learning by Doing:" capacity is built from a novice principal's nonmentored, experiential learning born from personal (non-work) life experience.
- 3. Professional Modeling: constructed learning that was facilitated through observing other principals who did not knowingly influence or engage in a mentoring relationship, but served as a model from whom the principal could learn by example.
- 4. Personal Modeling: the constructed learning resulting from observing a non-work related peer or other personal contact.
- 5. Personal Perpetuation of Value Systems: when a novice principal adheres to a personally-held, previously learned value system has serves as a guiding source of capacity while addressing his or her work demands.
- 6. Personal Life Mentoring: where individuals from a novice principal's personal life such as a parent, coach, therapist, or others have taken an active mentoring role in their personal capacity development that were identified in building capacities needed to solve workplace problems.
- 7. Professional Patron Role Socialization: the capacity-building taking place when parents, students, or other non-peers who interact with the principal in professional settings in ways that socialize them into their roles, thus building their capacity.
- 8. Professional Mentoring (Assigned): when a novice principal formally receives assigned mentoring from a veteran principal not stationed in the school building.

9. Professional Mentoring (Non-Assigned): capacity-building that takes place from organically-formed, yet non-assigned mentoring relationships between a novice principal and a professional peer, not entered into by assignment.

<Insert Table 4 here>

Prevalence of and certainty levels expressed in capacity sources. When novice principals cited various capacity sources as having built their capacity, it was noted during the coding of interview transcriptions whether principals also articulated some hesitancy or uncertainty in citing the capacity source they identified (thus resulting in a low level of certainty coded), attributing a capacity source as a matter of fact with no qualifying statements (resulting in a medium level of certainty coded), and also whether principals in some way emphasized a strong link between a capacity source and their resultant capacity (resulting in a high level of certainty coded). Thus, "certainty level" in this study is a qualitative process determined during coding by statements made by principals about the sources of capacity.

Interestingly, among the nine sub-categories of capacity sources, there are four that were identified by the greatest number of principals and with the highest number of incidences during interviews: Professional "Learning by Doing," Personal "Learning by Doing," Professional Modeling, and Personal Modeling. Yet, new principals in this study did not express the greatest degree of certainty towards these four capacity sources during interviews. Instead, these principals spoke using the most certainty about the capacity-building effects of other capacity sources: Personal Life Coaching and Professional Mentoring (Assigned). In fact, these two capacity sources were some of the least-identified capacity sources during interviews.

Each of the data relative to capacity sources are depicted in Figure 1. In the center is a principal, representing the aggregate responses of all principals interviewed in this study. The

circles surrounding her represent each capacity source. The size of each circle is proportionate to the number of times the capacity-building source was identified during interviews. Therefore, because Professional "Learning by Doing" was identified more than any other capacity source type during interviews, 66 times, it is the largest circle in Figure 1. Professional Mentoring (Non-Assigned) is the smallest circle in the figure because it was mentioned the fewest times (seven) during interviews. The distance from each circle to the principal is inversely proportional to the number of principals who identified the capacity-building source. Thus, the circles closest to the principal are the ones spoken of most often during interviews, such as Professional "Learning by Doing" and Personal "Learning by Doing," while the circles mentioned least, such as Professional Mentoring (Assigned) and Professional Mentoring (Non-Assigned) are furthest away. Lastly, the width of the line connecting the principal to the capacity source is proportional to the certainty level conveyed in each source, with thicker lines connoting greater certainty expressed by principals during interviews (with greater certainty being calculated by the number of "high level of certainty" responses compared to all times the capacity source was identified during interviews). Because principals expressed the greatest certainty in Professional Mentoring (Assigned), this capacity source had the thickest line in Figure 1.

This visual representation illustrates a generally positive relationship between the size of circle and distance from the circle's location to the principal: larger circles are closer and smaller circles are farther away. However, the thicker lines (expressing higher certainty in its being a source of capacity) are associated with the distant, smaller circles. Later discussion will explore the significance of findings relative to certainty levels, and implications for school districts in crafting professional development supports for novice principals.

Capacity sources compared against principal demand types. The demands of novice principals, the capacities to which they turn, and the sources of these capacities should not be considered in isolation, but together in context of each other. Understanding the demands novice principals face, or why their capacities are needed, contextualizes what kinds of capacities are required by principals. Knowing the why and what of capacity development then gives proper insight to an understanding as to where these capacities were developed, or to what sources principals turn or have turned in developing these capacities. Each problem of practice identified in this study, the why, was compared against sources of capacities organized into sub-categories, the where, exploring whether there are specific capacity sources from which novice principals draw as they address various demands.

First, the five professional capacity sources are compared against the 14 identified problems of practice novice principals face (Table 5), exploring the extent which certain types of professional experiences build novice principal capacity. The first-hand capacity source of Professional "Learning by Doing" reached over a 50% identification threshold among novice principals in nine of 14 of the demand categories—the highest threshold reached by any capacity source. Similarly, the professional capacity source of Professional Modeling also reached a 50% identification threshold among novice principals in building their capacity to solve workplace problems. Joe, a new high school principal, talks about how Professional Modeling helped build his capacity. "Just by observing my administrators—good quality administrators and just learning from them as well—not being afraid to ask questions, not being afraid to step in." The Professional "Learning by Doing" and Professional Modeling described by Joe were the only two capacity sources to reach a 50% identification threshold for any problem of practice.

<Insert Table 5 here>

Next, the four sub-categories of personal capacity sources are compared against the 14 problems of practice identified by novice principals (Table 6). When comparing Personal "Learning by Doing," Personal Modeling, Personal Perpetuation of Value Systems, and Personal Life Mentoring each against demands novice principals face, several findings emerge. Even though life activities subsumed under the capacity source Personal "Learning by Doing" have no direct relationship with professional demands, this capacity source reached over a 50% identification threshold among novice principals in eight of 14 of the demand categories. Bart reflects how his personal "learning by doing" built his capacities as a new elementary principal.

Some of my experiences in life have taught me that it doesn't feel very good to be on the wrong end of a decision.... I've just developed that—that I have to put myself in their shoes.... Maybe it was past experiences in a past career that helped me understand that it's just a better way to work.

Similarly, the personal capacity source of Personal Modeling also reached a 50% identification threshold among novice principals in building their capacity to solve workplace problems, doing so in three of 14 demands categories. This personal capacity source is described by Brian, novice junior high principal, in relation to how he can successfully address workplace problems. "There's always been people in my life that have been super influential to be archetypes for how I want to navigate life." Like many in this study, Brian cites family members as one of those influential persons who built his capacity. He also states in his interview: "That definitely traces back to my family. My grandma was a big believer in positive thinking. She would always quote Norman Vincent to us. That was there." While Brian, Bart, and other novice principals interviewed in this study do not claim that people and experiences from their personal lives were the only things that built their capacities, these capacity sources were mentioned 48%

of the time. Moreover, a few sub-categories of personal capacity sources were identified more prevalently than many professional sources of capacity-building, such as Professional Mentoring (Assigned). This finding is discussed later, offering additional implications for school districts seeking to effectively train new principals.

<Insert Table 6 here>

Discussion

Organizational Demands Faced in Schools Call for Managerial Capacities

Previous research has listed the various demands principals face (Darling-Hammond et al., 2007; Davis et al., 2005; Fullan, 2010; Fuller, Young, Richardson, Pendola, & Winn, 2018) and has categorized these demands into three overarching categories as managerial, instructional, and political (Cuban, 1988). These same three categories emerged from the problems identified by novice principals in this study, replicating previous research. Prior studies have not, however, indicated the *prevalence* of each of these demands. Novice principals in Mason School District identified facing managerial problems of practice more prevalently than those tasks directly related to instructional leadership. In fact, novice principals in this study suggest that managerial demands preclude them from engaging in certain types of instructional leadership. Bob, an elementary principal, recounts how his goal of being an instructional leader is found too often in the "want-to-do pile." He continues, "Leadership and professional development, time to be with teacher [PLCs]... there is not often enough time." Bob's comments, typical of other new principals in this study, echo other research findings how modern school principals struggle to engage in certain instructional leadership activities because of managerial duties. Hallinger (2003) summarizes that "efforts by principals to act as instructional leaders in schools inevitably run aground against basic structural and normative conditions of the principalship and the

school" (p. 335). Simply put, being an organizational manager is an unavoidable, subsuming role of new principals, regardless whether they desire to meet these managerial tasks or feel that they have the related training, experience, or capacities to do so.

Fortunately, emerging conceptualizations of school leadership posit that attention to organizational management by principals need not come at the cost of being an instructional leader; in fact, being an effective and strategic organizational manager might best fulfill this instructional responsibility, so long as these principals modernize the operational definitions of what impactful instructional leadership and organizational management look like. In studying school learning outcomes, Horng, Klasik, and Loeb (2010) found that attention to organizational management by a principal can contribute more to positive learning outcomes than can his or her emphasis on traditional instructional leadership activities such as providing individualized feedback and modeling teaching. A modernized, "different view of instructional leadership emphasizes organization management for instructional improvement [emphasis added] rather than day-to-day teaching and learning" (Horng & Loeb, 2010, p. 66) because the effects of such organizational management extend beyond the classroom walls and into the entire school organization. Specifically, a principal is best able to affect student outcomes when instruction and learning are addressed through an organizational, system-wide lens, "such as scheduling, program design, coordination, organization for instruction and other elements" (Achilles & Tienken, 2005, p. 315). With new principals in this study identifying managerial issues more than instructional or student demands, and since some types of managerial demands are a more impactful vehicle to improve learning system-wide, implications for school districts abound. First, "principals... need help with both the instructional and managerial aspects of their job" (DiPaola & Tschannen-Moran, 2003, p. 60). Without such a multi-faceted approach to capacitydevelopment, school districts will find their new principals unable to meet their many demands. Without adequate support, some of these new principals will burn out and leave the profession (Sun, 2011), while others like many in this study will turn to unknown sources outside district supports to build their capacity. In the short-run, capacity building outside the district might seem viable; however, from a system improvement perspective, these unknown capacity sources to which new principals turn are unable to be leveraged or replicated by school districts seeking to equip novice principals with all the capacities needed to address problems they face.

Novice Principals Rely on Dispositional Capacities

Early in the history of public education, the capacity domains of knowledge, disposition, and skills have been acknowledged. Pestalozzi simply described capacity through the domains of "head, heart, and mind" (Brühlmeier, 2010, p. 47). King and Newmann (2001), as well as other researchers aptly describe these domains as in referring to one's "knowledge, skills, and dispositions" (p. 88). Lacking common language, however, other education researchers acknowledge dispositions in capacity development, but only focus on certain components of dispositional capacities. Kotter, for example references one's "heart and mind" (2007, p. 7). Leithwood and colleagues (2004) describe principals' "capacities and motivations" (p. 12) rather than considering one's motivation as a capacity component under the domain of disposition. Eller (2008) refers to a principal's "knowledge, skills, and applications" (p. 4). While Melton, Mallory, and Green (2010) note that "we lack a common understanding of how to define dispositions," (p. 54), they also note that "NCATE [National Council for the Accreditation of Educator Preparation (2002) has defined professional dispositions as 'professional attitudes, values, and beliefs demonstrated through both verbal and non-verbal behaviors as educators interact with students, families, colleagues, and communities" (p. 89).

This study finds that in Mason School District, novice principals rely far more on their dispositional capacities than their skills or knowledge. Melton and colleagues (2010) would assert that this finding is not surprising, for "just as dispositions guide behaviors of teachers, dispositions also guide the behaviors of principals" (p. 58). This guiding influence of dispositions is further explained by Ritchhart (2002) who asserts that one's dispositional capacities determine his or her behavior in part because they compensate for gaps in other capacity domains: "dispositions concern not only what we can do… but what we are actually likely to do, addressing the gap we often notice between our abilities and our actions" (p. 18).

The mitigating influence of dispositional capacities on a new principal's skill or knowledge gaps is expressed repeatedly in this study, and is cited by principals during interviews as the reason they can each successfully resolve issues while each possessing vastly different underlying skillsets. "One of the beauties about jobs like ours that are about human interaction is that no matter what strengths you have, there's a pathway for you to be a good administrator," says Lisa, elementary principal. The demands principals face in their job can be addressed through various strengths, Lisa posits, but because they are solved in the arena of "human interaction," they interface with and rely on dispositional capacities, regardless of what underlying skills exist. Such a reliance on their dispositional capacities by new principals could also be explained not by having diverse skillsets, but by having deficiencies. Should these novice principals possess insufficient knowledge or skill-based capacities to resolve demands, they may instead rely on more developed dispositional capacities to compensate. In layman's terms, the adage "fake it until you make it" may be at play: without adequate knowledge and skills, new school leaders use pre-existing dispositional capacities they possess.

It is important for school districts to recognize new principals' reliance on dispositional capacities because if dispositions are the capacity source most utilized by novice principals (either because dispositions guide behaviors when skills and knowledge are deficient or for some other reason), then school districts, in their desire to improve principal capacity overall, can begin by targeting desired dispositional capacities among new principals. It is possible, and encouraged, for school districts "to meet the challenge of identifying, assessing, and impacting leader dispositions" (Melton et al., 2010, p. 58). While dispositional capacities may be drawn upon by novice principals more in the first years of their career to compensate for their emerging skills and knowledge, dispositional capacities are utilized throughout their careers, often employed by principals to ameliorate common, yet intense problems of practice, such as addressing angry patrons. It is in these high-stakes situations where dispositional capacities are most needed. And unlike the other capacity domains of skills and knowledge, skill-based capacities and knowledge facets which are applied in situation-specific contexts, dispositional capacities can be applied in addressing a variety of problems, providing principals and school districts a wider range of benefits.

Thus, if principals like those in Mason School District primarily draw upon their dispositional capacities to lead schools, and if school districts like Mason desire to leverage the influence of principals to improve student outcomes, then professional development offered to novice principals should also enhance the capacity domain they draw from the most: their dispositions. A future study will further explore the connection between the capacity development of novice principals' dispositions and the capacity source types most prevalently drawn upon in building these dispositional capacities, namely Professional "Learning by Doing" and Professional Modeling. For now, it is noted that development opportunities are effective

because they not only provide the principal with experiential or vicarious learning, but also because they incorporate the acquisition of skills, knowledge, *and* dispositions in the process. For example, a principal can be exposed to new skills or knowledge through professional development trainings in a district office, but little or no personal capacity is built while learning in that setting in contrast to the novice principal working alongside a principal peer who models the care, humor, expectations, and other dispositions that accompany the use of needed skills and knowledge. Thus, novice principals rely not only upon dispositional capacities to address workplace problems, they also benefit from professional development which includes opportunities for the modeling and exercise of dispositions as well.

Modeling and "Learning by Doing" Identified as Most Impactful for Capacity Building

With both Personal Modeling and Professional Modeling (the informal capacity building process of observing and replicating others who are not assigned personal or professional mentors) found to be such a prevalent capacity source among the novice principals interviewed, this study expounds on a similar phenomenon observed by Méndez-Morse (2004), who found that Latina principals in her study, in the absence of available formal mentors, learned vicariously by observing other administrators. They "essentially synthesized the skills, abilities, and attributes of the individuals to develop those competencies in themselves.... in which mentorship (however abstract, faceless, and nameless) is constructed from a variety of resources" (Méndez-Morse, 2004, p. 586). Like the principals in Mason School District, female principals in her study constructed their own role models from both from personal and professional sources to build their capacities. These exemplars "mitigated the absence of a formal, traditional mentoring relationship... that collectively met their specific needs and priorities" (p. 561). While each novice principal in Mason School District had Professional Mentoring (Assigned) as a

formalized capacity source they could have accessed, these new principals identified Professional Modeling and Personal Modeling more prevalently as having built their capacity, even though these supports were not as targeted or intentional in building novice principals' professional capacities as was Professional Mentoring (Assigned). Thus, the learning modality of modeling, whether it be found in a novice principal's personal life or within their profession, is not a phenomenon used only to "mitigate the absence for a formal, traditional mentoring relationship" (p. 561) as Méndez-Morse suggests, but is used also enhance or supplement existing assigned mentoring relationships that, while they may be more formalized, are not self-recognized by principals as prevalently in the building of their professional capacities.

In addition to the capacity sources of Personal Modeling and Professional Modeling described above, administrators describe during interviews how their experiential learning developed their capacities to later address professional problems of practice. Labeled in this study as "Learning by Doing," this capacity source refers to the capacity development gained by personally-enacted experience done without a mentor to guide or model to observe. This experiential learning principals ascribe in building their capacities is described as either being part of their personal life not related to their profession (labeled as Personal "Learning by Doing"), or as on-the-job work experience (labeled as Professional "Learning by Doing"). While other capacity sources were identified by principals in this study, the only ones to reach a 50% threshold were Professional "Learning by Doing," Personal "Learning by Doing," Professional Modeling, and Personal Modeling." Noting that the prevalently identified capacity-building activities are modeling and learning by doing, and that these two learning activities are drawn upon in both principals' personal and professional lives, the implications are important for school districts in leveraging meaningful ways to build principals' capacities.

Through their responses to interview questions, principals in this study claim that the ways they build capacity come from their experiential learning and observing competent models. More important is to note that this learning and modeling builds their capacity both from professional experiences as well as those from their personal lives. Thus, regardless of the source of their capacity (personal or professional), certain capacity development processes (learning by doing and modeling) are so effective that these processes enable principals to address professional problems of practice, even if the initial context that built their capacities was not related to their work as principal. Applying this finding to the framework of this study, it can be said it not where a capacity source is accessed that is important (meaning one's personal or professional life). Rather, in the process of capacity development, it is important how a capacity source is developed, using processes such as in "Learning by Doing" and Modeling.

This finding echoes those of a 10-year study released by Fuller et al. (2018) where the "respondents indicated that practical experience as a principal and as a teacher were the most valuable in terms of supporting their success" (p. 19). The identification of "Learning by Doing" over other capacity types in building principal capacities reinforces Grissom and Harrington's (2010) finding that "not all modes of administrator professional development are equally effective at improving principal performance" (p. 585). This study finds that because of the experiential nature of the principalship, novice principals identify their capacities being built from their first-hand experience, followed closely by learning vicariously from practicing principals whom they observe.

A link between Grissom and Harrington's finding about disparate effect sizes of principal development and this study's findings (that novice principals' capacity is built from their own experience or by first-hand observation of administrative peers) is offered by Bandura (1982). In

"Self-Efficacy Mechanism in Human Agency," he explains how personal efficacy (which can be appropriately considered as one's personal capacity, particularly linked to the domain of dispositional capacity) is built through not only personal experience, but also the "vicarious experiences" of observing "similar others" (p. 126) who are navigating the same types of situations. Through these observations, constructed learning takes place, resulting in the protégé internalizing "that they too possess the capabilities to master comparable activities.... (including) effective strategies for dealing with challenging or threatening situations" (p.126-127). Bandura notes how this efficacy, or capacity, is increased the more the modeling principal appears to be the same as the protégé. His findings offer one possible explanation why Professional Mentoring (Assigned) may not be identified as a valued capacity source in school districts: the assigned mentor is not regarded as a "similar other" by the protégé, thus not fully able to influence the protégé's "efficacy expectations."

Principals in this study may have identified Professional Modeling more prevalently than Professional Mentoring (Assigned) not only because of the increased impact such "similar other" models have on their capacity compared with formal mentors, but also because there is a more diverse pool of mentors from whom the protégé principal can learn. Mullen (2009) observes how formal (or assigned) mentoring often involves one person, while informal mentoring invites the possibility of multiple mentors to influence the protégé concurrently. The diversity of mentorship available through Professional Modeling also allows for novice principals to receive support, even though informal, from a principal with whom he or she is compatible. Such self-selection obviates the potential "toll of personality mismatches, and the costs of ideological differences between mentor and protégé" (Grogan & Crow, 2004, p. 465). Also, Professional Modeling may be identified more than Professional Mentoring (Assigned) as a capacity-building source because

of its potential timeliness in building capacities in context of problems of practice the novice principal is currently addressing. Jesse offers two reasons why formal supports are unable to build desired capacities at the times most needed. "One, I am only going to remember ten percent of it, and two, of that ten percent, only half a percent is pertinent to what I need at that moment!" Said differently, certain capacity sources, may be preferred over others because they provide immediate access to assistance.

Conclusions and Implications

Summary

The study of principal capacity and how it is developed are complex and emerging topics yet are worthy of additional research. The relationship of the *who*, *where*, *how*, *what*, and *why* of capacity development for novice principals to the study's findings and research questions are offered in Figure 2. With improved training and supports for novice principals (the *who*), schools and students will benefit from principals who possess needed capacities to facilitate desired student outcomes (the *why*) by addressing managerial problems, instructional and student-related problems, and problems relating to mediating influences external to the school. The various capacities needed by principals to meet these responsibilities and roles constitute the *what* of capacity development.

This study explored sources from which these capacities of novice principals have been developed. This *where* of capacity development reveal that novice principals draw not only from various professional capacity sources, but also substantively from personal ones. As important as it is to recognize that principals build their capacity from personal and professional sources, it is essential to understand that in building these capacity sources, only certain capacity-developing type of activities were frequently identified as having built new principals' capacities; "Learning

by Doing" and Modeling are the factors most often identified in capacity development, and constitute the *how* of building new principals' capacities. Thus, when it comes to principals' capacity development, researchers and school districts should realize that it is not only *where* capacity sources are accessed (their personal or professional lives), but also *how*.

Implications for Practitioners

By recognizing the importance of the *how* in the capacity development of novice principals, as well as knowing the that principals in this study identified experiential learning (both as Personal "Learning by Doing" and Professional "Learning by Doing") and observing others (both as Personal Modeling and Professional Modeling) more prevalently than other capacity source types, school districts are better equipped to design professional development that meets the needs of their novice principals. For example, school districts may seek to better leverage novice principals' personal and professional experiential learning experiences, as well as creating a culture of collaboration "scheduling time for informal networks" (Eller, 2008, p. 28) that promote a culture of collaboration.

Other implications stem from recalling that novice principals in this study primarily face managerial demands and draw on their dispositions far more than other capacity domains. As principals experience primarily managerial demands, and draw on various capacities to address these and other demands while leading schools, school districts would do well to consider Remy's (2009) approach to differentiated professional development: "It may be beneficial to explore the differences between the need for managerial mentoring with the need for instructional leadership mentoring inside of a school. The former addresses the day-to-day operations, while the later addresses curriculum, instruction and assessment" (p. 113).

Realizing that principals in this study rely far more on their dispositional capacities than their skill-based capacities or knowledge facets, Elmore (2005) may find an answer to his question "Why does there seem so little difference between leaders who are trained for their role and those who are not?" (p. 41). These dispositions, if viewed as fixed, yet findable, spur school districts to find the desirable dispositions, then seek to tack on principal capacity with additional knowledge and skills. Rather, if dispositions are aptly considered to be malleable, preservice programs and school districts can intentionally develop these dispositions through effective capacity-building activities that target the building of dispositions in tandem with knowledge and skill development. As preservice and inservice development for school leaders intentionally target all three capacity domains, they are likely to find their efforts are more effective in building principals' capacities.

Implications for Further Research

Educational researchers are invited to consider in future studies whether veteran principals are different from novice principals in their reliance on dispositional capacities, and whether their "how" of capacity development is the same later in their careers as it is in their beginning, that is, if they rely on the same types of capacity-building as do novice principals. If the utilized capacity domains and preferred capacity-building types shift throughout a principal's career, additional research describing these shifts would further contribute to how school districts can provide effective career-staged supports for principals. Longitudinal studies on the capacity development for principals can explore whether novice principals draw on dispositional capacities more because the nature of the job requires their extensive use, or because they have not yet developed adequate knowledge and skills. It is acknowledged that in this study, attention was focused on the relationship between problems of practice and capacity sources. While this

relationship is certainly mediated by the principals' capacities themselves, this mediating influence was not the primary focus of this study. Further research will explore the strength of the relationships between capacity domains and capacity sources.

References

- Achilles, C. M., & Tienken, C. (2005). Professional development and education improvement?

 In L. W. Hughes (Ed.), *Current issues in school leadership* (pp. 303-320). Mahwah, NJ:

 Lawrence Erlbaum Associates.
- Anderson, L. M., & Turnbull, B. J. (2016). Evaluating and supporting principals. Building a stronger principalship (Vol. 4). Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/Building-a-Stronger-Principalship-Vol-4-Evaluating-and-Supporting-Principals.pdf
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122-147. Retrieved from: http://dx.doi.org/10.1037/0003-066X.37.2.122
- Betielle, T., Kalogrides, D., Loeb, S. (2009). Effective schools. Managing the recruitment,

 development, and retention of high-quality teachers: Working paper 37. Washington,

 D.C.: The Urban Institute. Retrieved from: https://files.eric.ed.gov/fulltext/ED509688.pdf
- Brown, K. M., Anfara, V. A., Hartman, K. J., Mahar, R. J., & Mills, R. (2002). Professional development of middle level principals: Pushing the reform forward. *Leadership and Policy in Schools, 1*(2), 107-143. Retrieved from:

 https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED457595
- Brühlmeier, A. (2010). *Head, heart, and hand: Education in the spirit of Pestalozzi*. Cambridge, UK: Sophia Books.
- Cuban, L. (1988). The managerial imperative and the practice of leadership in schools. New York, NY: SUNY Series in Educational Leadership.

- Darling-Hammond, L., LaPointe, M., Meyerson, D., Orr, M. T., & Cohen, C. (2007). *Preparing school leaders for a changing world: Case studies of exemplary programs*. Stanford, CA:

 Stanford Educational Leadership Institute. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Documents/Preparing-School-Leaders.pdf
- Davis, S., Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). School leadership study: Developing successful principals. Stanford, CA: Stanford Educational Leadership Institute. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/Developing-Successful-Principals.pdf
- DiPaola, M., & Tschannen-Moran, M. (2003). The principalship at a crossroads: A study of the conditions and concerns of principals. *NASSP Bulletin*, 87(634), 43-65. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1177/019263650308763404
- Eller, J. (2008). An assessment of the recently appointed administrators' program: Lessons learned for supporting new principals. Open-Stax CNX module: m15873. National Council of Professors of Educational Administration. Retrieved from: http://cnx.org/content/m15873/1.1/
- Elmore, R. F. (2005). *School reform from the inside out*. Cambridge, MA: Harvard Education Press.
- Fink, D. (2011). Pipelines, pools and reservoirs: Building leadership capacity for sustained improvement. *Journal of Educational Administration*, 49(6), 670-684. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1108/09578231111174811
- Fink, E., & Resnick, L. B. (2001). Developing principals as instructional leaders. *Phi Delta Kappan*, 82(8), 598-606.

- Fullan, M. (2010). *All systems go: The change imperative for whole system reform.* Thousand Oaks, CA: SAGE Publications.
- Fuller, E. J., Young, M. D., Richardson, M. S., Pendola, A., & Winn, K. M. (2018). *The pre-K-8 school leader in 2018: A 10-year study*. Alexandria, VA: National Association of Elementary School Principals & the University Council for Educational Administration.

 Retrieved from:

 https://mail.google.com/mail/u/0/#search/boren/FMfcgxvzLrKgFVzfCVgFsvNDDxSrwB
 - https://mail.google.com/mail/u/0/#search/boren/FMfcgxvzLrKgFVzfCVgFsvNDDxSrwBKh?projector=1&messagePartId=0.1
- Grissom, J. A., & Harrington, J. R. (2010). Investing in administrator efficacy: An examination of professional development as a tool for enhancing principal effectiveness. *American Journal of Education*, 116(4), 583-612. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1086/653631
- Grogan, C., & Crow, G. (2004). Mentoring in the context of educational leadership preparation and development—old wine in new bottles? Introduction to a special issue. *Educational Administration Quarterly*, 40(4), 463-467. Retrieved from: http://journals.sagepub.com.erl.lib.byu.edu/doi/pdf/10.1177/0013161X04267107
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, *33*(3), 329-351.
- Hallinger, P., & Lee, M. (2013). Exploring principal capacity to lead reform of teaching and learning quality in Thailand. *International Journal of Educational Development*, 33(4), 305-315. Retrieved from:
 - http://dx.doi.org.erl.lib.byu.edu/10.1016/j.ijedudev.2012.03.002

- Horng, E. L., Klasik, D., & Loeb, S. (2010). Principal's Time Use and School

 Effectiveness. *American Journal of Education*, *116*(4), 491-523. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1086/653625
- Horng, E. L., & Loeb, S. (2010). New thinking about instructional leadership. *Phi Delta Kappan*, 92(3), 66-69. Retrieved from:

 http://web.b.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=f7220
 933-31f9-4efc-a040-5f6553feac0e%40sessionmgr120
- Johnston, W. R., Kaufman, J. H., & Thompson, L. E. (2016). Support for instructional leadership. Supervision, mentoring, and professional development for U.S. school leaders: Findings from the American school leader panel. Washington D.C.: RAND Corporation. Retrieved from: https://www.rand.org/pubs/research_reports/RR1580.html
- King, M. B., & Newmann, F. M. (2001). Building school capacity through professional development: Conceptual and empirical considerations, *International Journal of Educational Management*, (15)2, 86-94. Retrieved from: https://doi.org/10.1108/09513540110383818
- Kotter, J. P. (2007, January). Leading change: Why transformation efforts fail. *Harvard Business Review*. Retrieved from: https://wdhb.org.nz/contented/clientfiles/whanganui-district-health-board/files/rttc_leading-change-by-j-kotter-harvard-business-review.pdf
- Leithwood, K., Louis, S. K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning: Review of research*. Minneapolis, MN: Center for Applied Research and Educational Improvement & The Wallace Foundation. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/How-Leadership-Influences-Student-Learning.aspx

- Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). *Learning from leadership: Investigating the links to improved student learning*. Minneapolis, MN:

 University of Minnesota. Retrieved from: http://www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Pages/ Investigating-the-Links-to-Improved-Student-Learning.aspx
- Melton, T., Mallory, B. J., & Green, J. (2010). Identifying and assessing dispositions of educational leadership candidates. *Educational Leadership and Administration: Teaching* and Program Development, 22(1), 46-60. Retrieved from: https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ965161
- Méndez-Morse, S. (2004). Constructing mentors: Latina educational leaders' role models and mentors. *Educational Administration Quarterly*, 40(4), 561-590. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1177/0013161X04267112
- Mullen, C. (2009). Re-imaging the human dimensions of mentoring: A framework for research administration and the academy. *The Journal of Research Administration*, 40(1), 10-31. Retrieved from: https://eric.ed.gov/?id=EJ886783
- Nicholson, B., Harris-John, M., & Schimmel, C. J. (2005). *Professional development for*principals in the accountability era. Charleston, WV: Appalachia Educational Laboratory at Edvantia. Retrieved from: http://www.sfu.ca/~dlaitsch/courses/962/prinprod.pdf
- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.

- Remy, L. M. (2009). Administrative mentoring: An investigation of practicing principals' perceptions of the role mentors played in their professional development and job satisfaction (Doctoral dissertation). University of Northern Iowa, Iowa. Retrieved from: https://search.proquest.com/openview/ddf0c45c3150d8acf046cff3f81773c6/1?pq-origsite=gscholar&cbl=18750&diss=y
- Ritchhart, R. (2005). *Intellectual character: What it is, why it matters, and how to get it.* San Francisco, CA: Jossey-Bass.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75. Retrieved from: http://web.a.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=2&sid=579c4 21b-f3cd-433d-bc76-c53b39838488%40sessionmgr4010
- Sun, C. (2011). School leadership: Improving state systems for leader development. *NASBE Discussion Guide*. Arlington, VA: National Association of State Boards of Education. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/NASBE-Discussion-Guide-School-Leadership-Improving-State-Systems-for-Leader-Development.pdf
- Turnbull, B. J., Riley, D. L., & MacFarlane, J. R. (2013). *Cultivating talent through a principal pipeline: Building a stronger principalship* (Vol. 2). Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/Building-a-Stronger-Principalship-Vol-2-Cultivating-Talent-Through-a-Principal-Pipeline.aspx

Waters, T., Marzano, R. J., & McNulty, B. (2003). Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement. A working paper.

Aurora, CO: Mid-Continent Regional Educational Lab. Retrieved from:

https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED481972

Tables

Table 1

Participant Characteristics

| Personal Characteristics | Frequency | Percentage | Professional Characteristics | Frequency | Percentage | |
|-----------------------------|-----------|------------|---------------------------------|-----------|------------|--|
| Age (years) | | | School Level | | | |
| 31-35 | 2 | 8.3% | Elementary | 14 | 58.3% | |
| 36-40 | 6 | 25.0% | Junior High | 5 | 20.8% | |
| 41-45 | 6 | 25.0% | High School | 5 | 20.8% | |
| 46-50 | 7 | 29.2% | Title I School | | | |
| 51-55 | 1 | 4.2% | No | 15 | 62.5% | |
| 56-60 | 0 | 0% | Yes | 9 | 37.5% | |
| 61-65 | 2 | 8.3% | Teaching (years) | | | |
| Ethnicity | | | 0-5 | 5 | 20.8% | |
| Caucasian | 21 | 87.5% | 6-10 | 13 | 54.2% | |
| Hispanic | 2 | 8.3% | 11-15 | 2 | 8.3% | |
| Mixed Race | 1 | 4.2% | 16-20 | 3 | 12.5% | |
| Gender | | | 21-25 | 1 | 4.2% | |
| Male | 14 | 58.3% | Admin (years) | | | |
| Female | 10 | 41.7% | 0-5 | 10 | 41.7% | |
| Years in Position | | | 6-10 | 11 | 45.8% | |
| 0-1 | 10 | 41.7% | 11-15 | 2 | 8.3% | |
| 2-3 | 6 | 25.0% | 16-20 | 1 | 4.1% | |
| 4-5 | 8 | 33.3% | | | | |

Table 2

Problems of Practice Identified by Novice Principals

| Problem of Practice Category | # of Admin Identifying Problem Category | % of Admin Identifying Problem Category | # of Instances Problem Category was Identified | % of Overall Instances Category was Identified |
|--|--|--|---|---|
| Managing an Organization | 24 | 100% | 96 | 47% |
| Addressing Staff Morale | 10 | 42% | 23 | 11% |
| Addressing Staff Needs | 10 | 42% | 20 | 10% |
| Transitioning to a New Role | 9 | 38% | 21 | 10% |
| Staffing & Scheduling | 8 | 33% | 10 | 5% |
| Staff Corrective Discipline | 7 | 29% | 9 | 4% |
| Reporting & Paperwork | 7 | 29% | 7 | 3% |
| Budgeting & Resources | 6 | 25% | 6 | 3% |
| Addressing Instructional & Student Needs | 20 | 83% | 65 | 32% |
| Building Teachers' Capacity | 12 | 50% | 24 | 12% |
| Student Safety | 11 | 46% | 15 | 7% |
| Student Discipline | 9 | 38% | 15 | 7% |
| Student Learning | 9 | 29% | 11 | 5% |
| Mediating External Sources | 19 | 79% | 44 | 21% |
| Community Responsiveness | 14 | 58% | 21 | 10% |
| Parent Involvement | 9 | 38% | 13 | 6% |
| Mediating External Sources | 7 | 29% | 10 | 5% |

Table 3

Capacity Domains

| Capacity Domain | # of Admin Identifying Capacity Domain | % of Admin Identifying Capacity Domain | # of Times Capacity Domain was Identified | % of Overall Times Capacity Domain Identified |
|---------------------------|---|---|--|--|
| Dispositions | 24 | 100% | 172 | 59% |
| Relational Traits | 21 | 88% | 67 | 23% |
| Demeanor & Habits | 19 | 80% | 67 | 23% |
| Values & Motivations | 14 | 58% | 24 | 8% |
| Vision & Judgement | 8 | 33% | 14 | 5% |
| Skills | 23 | 96% | 111 | 38% |
| Relationship-Based Skills | 20 | 83% | 66 | 23% |
| Task-Based Skills | 20 | 83% | 45 | 15% |
| Knowledge | 5 | 21% | 9 | 3% |
| Core & Teaching | 2 | 8% | 3 | 1% |
| General Knowledge | 2 | 8% | 3 | 1% |
| How People Think | 2 | 8% | 2 | 1% |

Table 4

Capacity Source Categories

| Capacity Source Category | # of Admin Identifying Source | % of Admin Identifying Source | # of Times Source was Identified | % of Times Source was Identified | Certainty Level of Response |
|---------------------------------------|--|--|---|--|-----------------------------------|
| Professional Capacity Sources | 24 | 100% | 149 | 52% | 27% |
| Professional "Learning by Doing" | 23 | 96% | 66 | 23% | 33% |
| Professional Modeling | 20 | 83% | 52 | 18% | 25% |
| Professional Role Socialization | 10 | 42% | 14 | 5% | 9% |
| *Professional Mentoring (Assigned) | 8 | 33% | 10 | 3% | 36% |
| Professional Mentoring (Non-Assigned) | 7 | 29% | 7 | 2% | 14% |
| Personal Capacity Sources | 24 | 100% | 140 | 48% | 24% |
| Personal "Learning by Doing" | 20 | 83% | 59 | 20% | 25% |
| Personal Modeling | 14 | 58% | 36 | 12% | 19% |
| Personal Perpetuation of Values | 13 | 54% | 31 | 11% | 22% |
| Personal Life Mentoring | 13 | 54% | 14 | 5% | 42% |

^{*}A capacity source sub-category that was also identified as markedly not helpful or counter-productive by other novice principals in this study during interviews.

Table 5

Comparing Professional Capacity Sources Against All Problems of Practice

| Problem of Practice Type | Professional "Learning by Doing" | Professional Modeling | Patron Role Socialization | Professional Mentoring (Assigned) | Professional Mentoring (Non-Assigned) |
|---|--|--------------------------|------------------------------|---|---|
| Managing an Organization (n=24) | 18 (75%) | 19 (79%) | 8 (33%) | 2 (8%) | 3 (13%) |
| Addressing Staff Morale (n=12) | 9 (75%) | 9 (75%) | 0 (0%) | 2 (17%) | 2 (17%) |
| Addressing Staff Needs (n=13) | 8 (62%) | 10 (77%) | 4 (31%) | 1 (8%) | 2 (15%) |
| Transitioning to a New Role (n=12) | 7 (58%) | 7 (58%) | 4 (33%) | 0 (0%) | 1 (8%) |
| Staffing & Scheduling (n=8) | 6 (75%) | 2 (25%) | 2 (25%) | 0 (0%) | 0 (0%) |
| Staff Corrective Discipline (n=7) | 3 (43%) | 6 (86%) | 0 (0%) | 0 (0%) | 1 (14%) |
| Reporting & Paperwork (n=7) | 2 (29%) | 1 (14%) | 0 (0%) | 1 (14%) | 1 (14%) |
| Budgeting & Resources (n=6) | 1 (17%) | 1 (17%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Addressing Instructional & Student Needs (n=20) | 17 (85%) | 11 (55%) | 4 (20%) | 3 (15%) | 4 (20%) |
| Building Teachers' Capacity (n=13) | 11 (85%) | 8 (62%) | 1 (8%) | 1 (8%) | 2 (15%) |
| Student Safety (n=10) | 4 (40%) | 3 (30%) | 0 (0%) | 1 (10%) | 3 (30%) |
| Student Discipline (n=9) | 8 (89%) | 2 (22%) | 2 (22%) | 0 (0%) | 1 (11%) |
| Student Learning (n=9) | 7 (78%) | 4 (44%) | 2 (22%) | 1 (11%) | 1 (11%) |
| Mediating External Sources (n=19) | 11 (58%) | 5 (26%) | 2 (11%) | 1 (5%) | 3 (16%) |
| Community Responsiveness (n=14) | 8 (57%) | 4 (29%) | 2 (14%) | 1 (7%) | 2 (14%) |
| Parent Involvement (n=9) | 4 (44%) | 3 (33%) | 1 (11%) | 1 (11%) | 2 (22%) |
| Mediating External Sources (n=9) | 6 (66%) | 3 (33%) | 0 (0%) | 1 (11%) | 0 (0%) |

Table 6

Comparing Personal Capacity Sources Against All Problems of Practice

| Problem of Practice Type | Personal "Learning by Doing" | Personal Modeling | Personal Perpetuation of Value Systems | Personal Life Coaching |
|---|------------------------------------|----------------------|---|------------------------------|
| Managing an Organization (n=24, r=96) | 18 (75%) | 10 (42%) | 10 (42%) | 7 (17%) |
| Addressing Staff Morale (n=12, r=23) | 9 (75%) | 5 (42%) | 4 (33%) | 3 (25%) |
| Addressing Staff Needs (n=13, r=20) | 7 (54%) | 5 (38%) | 6 (46%) | 5 (38%) |
| Transitioning to a New Role (n=12, r=21) | 7 (58%) | 6 (50%) | 2 (17%) | 3 (25%) |
| Staffing & Scheduling (n=8, r=10) | 3 (38%) | 1 (13%) | 1 (13%) | 1 (13%) |
| Staff Corrective Discipline (n=7, r=9) | 5 (71%) | 1 (14%) | 1 (14%) | 1 (14%) |
| Reporting & Paperwork (n=7, r=7) | 1 (14%) | 1 (14%) | 1 (14%) | 0 (0%) |
| Budgeting & Resources (n=6, r=6) | 0 (0%) | 0 (0%) | 0 (0%) | 0 (0%) |
| Addressing Instructional & Student Needs (n=20, r=65) | 12 (60%) | 8 (40%) | 9 (45%) | 4 (20%) |
| Building Teachers' Capacity (n=13, r=24) | 8 (62%) | 7 (54%) | 5 (38%) | 2 (15%) |
| Student Safety (n=10, r=15) | 8 (62%) | 7 (54%) | 5 (38%) | 2 (15%) |
| Student Discipline (n=9, r=15) | 6 (67%) | 3 (33%) | 3 (33%) | 1 (11%) |
| Student Learning (n=9, r=11) | 4 (44%) | 5 (56%) | 4 (44%) | 2 (22%) |
| Mediating External Sources (n=19, r=44) | 11 (58%) | 5 (26%) | 5 (26%) | 6 (32%) |
| Community Responsiveness (n=14, r=21) | 8 (57%) | 4 (29%) | 3 (21%) | 3 (21%) |
| Parent Involvement (n=9, r=13) | 4 (44%) | 4 (44%) | 3 (33%) | 1 (11%) |
| Mediating External Sources (n=9, r=10) | 7 (78%) | 2 (22%) | 2 (22%) | 3 (33%) |

⁽n) is the number of principals identifying a certain problem of practice category.

⁽r) is the number of responses made by n principals about that problem of practice category.

n (%) signifies first a number, then a percentage, of principals who draw on a particular capacity source in addressing a problem of practice. For example, in considering how many novice principals identified Personal "Learning by Doing" as building their capacity in Addressing Staff Morale, we see 9 (75%). This means that among the 12 novice principals identified addressing this problem of practice, 9 of them, or 75% of this sub-group of administrators, identified this capacity source as having built their capacity.

Figures

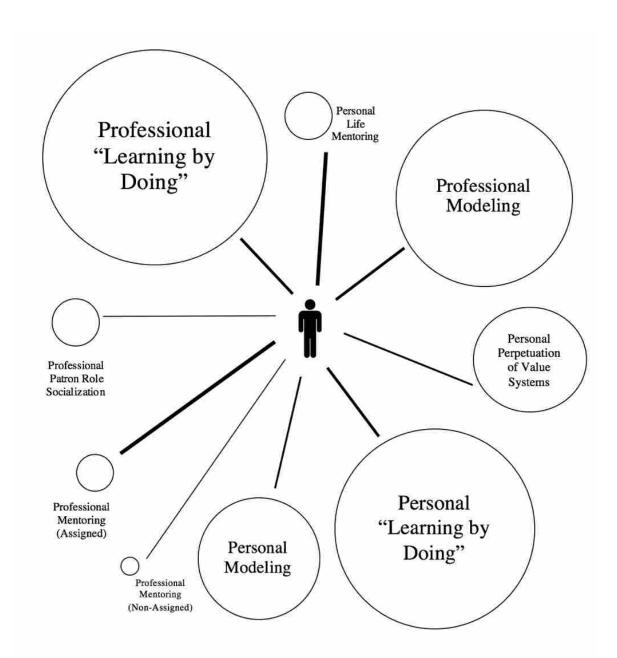


Figure 1. Novice principals' relationship to capacity-building sub-categories. The size of circle is proportionate to total number of responses. The length of the line connecting the person to the circle is inversely proportional to the number of principals identifying the capacity type. The width of the line is proportional to the certainty level expressed in the capacity type by the principals during interviews.

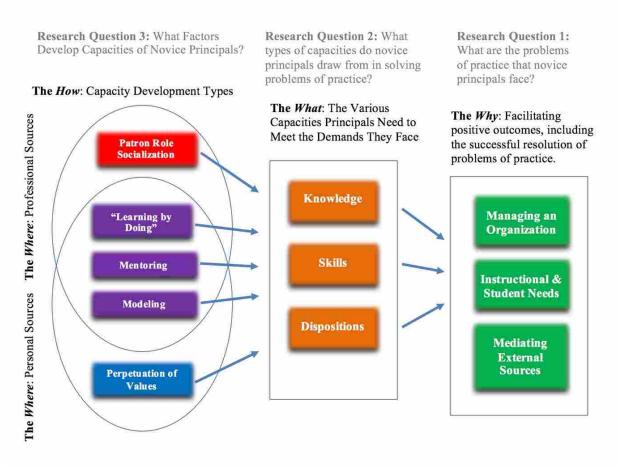


Figure 2. Conceptual model integrating study questions, framework, and findings.

APPENDIX A

Review of Literature

Understanding and Measuring the Impact of School Building Principals

The impact of principals on schools are large. Principals have a large array of roles they enact, a high degree of oversight over the organization structures of the school, and mediates much of what transpires in the building. The negative influence of a principal is seen when rapid principal turnover occurs. Effective principals can influence a school positively, such as being able to retain effective educators. Ineffective principals can also negatively affect their schools.

Principals Have Large Roles Requiring Diverse Capacities

With a "daunting array of roles" of overseeing instruction and assessment, community building and public relations, budgets and facility management to name a few, administrators must have "a sophisticated understanding of organizations and organizational change" (Darling-Hammond, LaPointe, Meyerson, Orr, & Cohen, 2007, p. 1), as well as a multitude of other capacities (Fullan, 2010) to lead today's schools. Effectively fulfilling these roles allows school leaders to maximize their "influence on student learning" (Louis, Leithwood, Wahlstrom, & Anderson, 2010, p. 9), an influence second only to classroom instruction. Indeed, "the field has begun to give overdue recognition to the critical role and mounting demands on school principals" (Davis, Darling-Hammond, LaPointe, & Meyerson, 2005, Introduction).

Perhaps beyond the scope of one person to do well, Darling-Hammond and colleagues (2007) note how "contemporary school administrators play a daunting array of roles, they must be educational visionaries and change agents, instructional leaders, curriculum and assessment experts, budget analysts, facility managers, special program administrators, and community builders" (p. 1). They reason that these mounting expectations for schools and their leaders have

implications. The new landscape for education and the roles of principals "mean that schools typically must be redesigned rather than merely administered. It follows that principals also need a sophisticated understanding of organizations and organizational change" (p. 1). Without this understanding, how could principals effectively enact their roles of "disciplinarians... public relations experts... and expert overseers of legal, contractual, and policy mandates and initiatives," or to "broker the often-conflicting interests of parents, teachers, students, district officials, unions, and state and federal agencies, and they need to be sensitive to the widening range of student needs?" (p. 1).

More Organizational Oversight Expected of Modern Principals

While once principals as "principal teachers" were primarily considered to be instructional leaders, more and more is expected of them in being able to manage and even transform their school organizations. "They are being called on to lead in the redesign of their schools and school systems. In an outcome-based and accountability-driven era, administrators have to lead their schools in the rethinking of goals, priorities, finances, staffing, curriculum, pedagogies, learning resources, assessment methods, technology, and use of time and space" (Levine, 2005, p. 12). The implications for the changing landscape of schools are many, and all converge on the principal. Because of the increased complexities of school systems, "the role of principal has swelled to include a staggering array of professional tasks and competencies" (Davis et al., 2005, p. 3).

Principal as Mediator

While each school stands in context of a larger district and educational system, the principal becomes an important mediator or buffer of these influences. "Principal efficacy provides a crucial link between district initiatives, school conditions, and student learning"

(Wahlstrom, Louis, Leithwood, & Anderson, 2010, p. 127). The potential effects of school leaders are realized in schools of greatest need. "Indeed, the contribution of effective leadership is largest when it is needed most; there are virtually no documented instances of troubled schools being turned around in the absence of intervention by talented leaders. While other factors within the school also contribute to such turnarounds, leadership is the catalyst" (Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2010, p.17). They add that no matter what other components of school reform are in place, "there are virtually no documented instances of troubled schools being turned around without intervention by a powerful leader" (p. 5).

The Effect of Principal Turnover

The effects and influence of a principal are realized during times of transition and turnover. Louis et al. (2010) note that a principal's effect is evidenced by the good that can occur when he or she stays at a school versus when a principal is either unskilled or when a school experiences rapid turnover of their building principal. They also claim that principal turnover has moderately negative effects on school culture, and that rapid principal turnover explains a modest but significant amount of variation in student achievement across schools. Said differently, "frequent leadership turnover can have a devastating impact on student outcomes and school culture" (Sun, 2011, p. 4).

Effective Principals Retain Effective Teachers

When successful principals stay in a school long enough for their influence to be realized, they can influence student achievement in two primary ways, Davis and colleagues (2005) note: through development of effective teachers, and through effective organizational processes. More specifically, "principal leadership is positively associated with teacher satisfaction, teacher morale, commitment to the workplace, and teacher retention" (Grissom & Harrington, 2010, p.

584). More than just being a person of charisma, principals have an institutional impact on a school that is recognized by those in direct contact and influence towards students. Teachers say that school leadership, the principal in particular is the top reason they decide to stay at a school, or decide to leave the school (Sun, 2011).

Not only are principals more able to retain effective teachers, they are also able to facilitate higher turnover rates of less effective teachers. Betielle et al. (2009) not only came to the same conclusion that principals were able to retain high-quality teachers in their building, but compared to less effective principals, they saw higher turnover rates of ineffective teachers in their schools. The positive environment a principal facilitates is not just felt by the teachers, but also by students. "Findings suggest that effective principals develop supportive environments for both teachers and students. These supportive environments promote increased student achievement and help keep teachers at schools. Given the impact school leadership can have on student outcomes, providing every school with an effective principal should clearly be among the top priorities for every school system" (Sun, 2011, p. 4).

Principals' Effects Can Be Positive or Negative

It should stand to reason that just as school leaders with high capacity can reach their potential and exert a great degree of positive influence, they can also have a negative, detrimental impact on learning. Waters, Marzano, and McNulty (2003) note that "as important as these findings are (about the effect of leadership on student achievement), there is another finding that is equally as important. That is, just as leaders can have a positive impact on achievement, they also can have a marginal, or worse, a negative impact on achievement" (p. 5). This finding is contextualized by Leithwood and associates (2004) in noting "the total (direct and indirect) effects of leadership on student learning account for about a quarter of total school

effects" (p. 5). With twenty-five percent of all school effects emanating from one individual, their individual influence exerted, for positive or negative, can be pronounced for good or bad.

Principals Define Their Work as Organizational Management

Principals spend more of their time on organizational management than any other type of demand. These managerial demands are expanding, but the supports to meet these types of demands are not, highlighting a misalignment between needed supports and provided trainings.

Thus, school districts should reconsider the types of supports offered to new principals, and more intentionally target the acquisition of managerial skills.

Exploring Principal Time Use

With a wide and expanding scope of responsibilities, principals could easily prioritize their efforts on only a part of these demands, and to choose the wrong drivers that facilitate desired student outcomes. Demystifying the mechanisms that allow for principals' success has been attempted through shadowing administrators and noting their use of time, but these studies have described more of how they worked rather than what types of responsibilities they were addressing during those times (see Lunenburg, 2010). One study did track principal time use by type of responsibility, highlighting that significantly more time is spent by administrators on managerial aspects of the job compared to instructional leadership (Horng, Klasik, & Loeb, 2010).

Principals' Managerial Tasks Are Expanding, but Managerial Supports Are Not

Cuban (1988) asserts that the work of school principals can be categorized as being either managerial, instructional, or political in nature. More recent studies expand on how the managerial aspects of principals' work are increasing in scope and complexity. Pashiardis and Braukmann (2009) explain that "school leaders' roles and responsibilities have been (or need to

be) reconceptualized to recognize the new, far larger, more demanding set of roles they have to cope with. For example: learning to deal with enhanced administrative and managerial tasks, handling financial resources as well as human resources, managing public relations and building coalitions, engaging in quality management and public reporting processes...." (p. 121). These demands faced by principal call for principals to receive support "with both the instructional and managerial aspects of the job" (DiPaola and Tschannen-Moran, 2003, p. 60). Unfortunately, while managerial aspects of the principalship are expanding, commensurate training for them is not. Sixty-five percent of administrators in Browne-Ferrigno and Muth's study (2006) "indicated that they least understood the technical and managerial skills of the principalship" (p. 285).

Reasons for Possible Misalignment of Supports for New Principals

There exist possible reasons why managerial training has not been emphasized in professional development supports to administrators. Fullan (2006) acknowledges the prevalence "managerial issues" that pull administrators away from classrooms, arguing they are distractions. These "maintenance activities," he argues, syphon administrators' time and resources away from "continuous improvement" in pursuit of preserving the "status quo" (p. 10). While Fullan's dismissive views of managerial responsibilities exist, emerging studies, however, contextualize managerial organization as supporting student achievement, contributing more to positive learning outcomes than do certain types of instructional leadership (Horng & Loeb, 2010). In essence, while the paramount importance of instructional leadership is not in question, its operational definition is. And while managerial demands are recognized by researchers, more are embracing them as opportunities to promote learning rather as mere distractions.

Rethinking a Principal's Approach to Instructional Leadership

In exploring how a principal can improve teaching and learning in his or her building, one needs to be open to all avenues through which these outcomes can occur, even if these avenues diverge from traditional notions of instructional leadership. Through direct observation of principals and comparing their time use against school achievement, Horng, Klasik, and Loeb found that "organization management tasks appear very important, even more important than those associated directly with instruction" in producing positive school outcomes (2010, p. 521). In a separate study, Horng and Loeb (2010) urged principals to expand their notion of instructional leadership beyond classroom observations, noting how this narrowly-defined model does not fit modern schools, and also because the quality of teaching "can be affected only marginally by a principal's involvement in the classroom" (p. 66) anyways. These researchers instead promote "a different view of instructional leadership [that] emphasizes organization management for instructional improvement rather than day-to-day teaching and learning..." because "(they) consistently find that schools demonstrating growth in student achievement are more likely to have principals who are strong organizational managers" (p. 67).

The Wallace Foundation finds specific, pronounced benefits to school organizations when their principals possess such organizational management capacities: a principal's greatest effect on student learning stems from principals' abilities to affect teacher motivations and working conditions rather than through building teacher skills (Louis et al., 2010). Thus, principals can engineer workplace environments that in which teachers will be the most successful and motivated. This facilitation of school environment has more direct impact by a principal on student learning than working directly with teachers to improve their capacities. In no way do researchers promulgate organizational management at the cost of abandonment of

building teacher capacity. Researchers such as Davis and colleagues (2005) note how both are "important pathways" through which principals can influence student achievement. They simply emphasize how organizational management should not be ignored, and how student outcomes are achieved through both "the support and development of effective teachers, and the implementation of effective organizational processes" (p. 1).

A Call for Increased Managerial Skills and Training

Clearly, "the managerial behavior of principals is important to school effectiveness" (Bossert, Dwyer, Rowan & Lee, 1982, p. 38). Now, more than ever, it is essential that administrators become effective organizational managers as "the managerial tasks (required) of the principals have also been expanding" (DiPaola & Tschannen-Moran, 2003, p. 43). Considering the changing landscape of the schools and the expanding managerial responsibilities of principals, it is no wonder that Darling-Hammond and colleagues (2007) describe the managerial and instructional components of principals' work as a collective "daunting array of roles" calling for principals to simultaneously be "educational visionaries and change agents, instructional leaders, curriculum and assessment experts, budget analysts, facility managers, special program administrators, and community builders" (p. 1). The expanding managerial demands faced by principals cannot be effectively addressed by principals with additional training to be instructional leadership alone. The managerial nature of the principalship is not conductive to such a myopic approach in preparing school leaders, argues Hallinger (2003). "Efforts by principals to act as instructional leaders in schools inevitably run aground against basic structural and normative conditions of the principalship and the school" (p. 335). Therefore, "principals need assistance if they are to meet the expanded expectations of their role. They need help with both the instructional and managerial aspects of their job" (DiPaola &

Tschannen-Moran, 2003, p. 60). In response, some school districts are recognizing the managerial nature of the principalship and are basing professional development supports so that principals can adequately address the problems of practice school leaders face. "In Charlotte-Mecklenberg, for example, district leaders identified managerial leadership as a common gap in principal practice" and therefore offered professional development sessions around helping principals "manage all the different responsibilities and their nuances" (Anderson & Turnbull, 2016, p. 47). With districts' ability to utilize their in-house expertise and customize professional development supports to their own needs and priorities, districts can adopt a similar approach to ensure their supports offered to principals align with the challenges they face (Turnbull et al., 2013).

Because capacities so critical to school improvement allow rest on a principal's ability to effectively manage an organization (Beteille, Kalogrides, & Loeb 2009), such a district approach to principal training is best aligned to meet principals' needs. It is important to remember that instructional leadership and organizational management are only two overarching responsibilities a principal assumes, complimented by mediating external sources, such as those of their outside community. The school-specific context of this confluence of responsibilities should be considered in how districts support principals, Davis and colleagues (2005) assert for "the notions of generic leadership that once dominated the field are being replaced by more contextualized notions of leadership. Context is found to be important for key functions of schools, such as instruction, community-building, and change management" (p. 15). Without such context guiding districts, it is feared that supports offered to novice principals will be narrowly defined, leaving principals without the needed capacities to enact organizational change, effectively engage with community, or systematically build teacher capacity.

This study's findings emphasize the need for principals with instructional backgrounds to be offered training more reflective of the demands they face. In highlighting principals' managerial roles, this study does not call for abandonment of instructional leadership, nor does it minimize the value of having former classroom teachers as head of school organizations. While critics of current models in education reform, such as Meyer and Feistritzer (2003) would believe that we should turn to leaders outside of the realm of education with proven managerial track records to lead schools, that argument is not a latent message of this study nor an implication being drawn from during its discussion. In contrast, each study cited places inherent value on the instructional experience through which principals lead their schools as educators.

Exploring the Construct, History, and Operative Definitions of Principal Capacity

The conceptualization of principal capacity has changed throughout time, as has its operational definition. Research exploring principal capacity has shifted to reflect its relationship to professional development offered by preservice institutions, school districts, and other education partners.

Capacity-Building for Principals Traditionally Defined as Distributed Leadership

Literature discussing the construct of principal capacity has used various operational definitions. Up until the last decade, principal capacity did not refer to the various abilities a school leader possesses nor their authority, but rather refined the increase of principal capacity through shared leadership with other educators in the school building. For example, in Lambert's *Building Leadership Capacity in Schools* (1998), the mechanism to build principal capacity is not a focus on changing the principal's individual knowledge, skills or dispositions, but rather advocates for the capacity-building of teachers, emphasizing the "collective endeavor" that is leadership, replete with a "redistribution of power and authority" (p. 9). In a similar vein, other

researchers speak of building principal capacity, but focusing on the people surrounding him or her, allowing the existing individual capacities of a principal to be amplified rather than improved upon (see Chirichello, 1999; Copland, 2003; Harris, 2011; Kee, Anderson, Dearing, Harris, & Shuster, 2010). While the endeavor of collective capacity-building positively affects student learning, the capacity-building of others is based on the premise of having a principal capable of facilitating such capacity-building himself or herself. Hatch (2002) argues against the fallacy that changing school conditions without the capacity to do so leads to change. Altering a school's working and learning systems cannot only get a school so far in building capacity because "it takes capacity to build capacity at the school level" (p. 628). Thus, while the collective capacity-building of staff members can indeed catalyze school improvement, this building of staff capacity presupposes having a principal with certain capacities that he or she may not have. Promulgating the collective capacity-building of school staff has presupposed an important, intermediary step in the process, ensuring that the principal himself or herself possess requisite capacities.

An Increase in Capacity Defined by Increased Authority

Alternately, research groups have considered the increase of principal capacity not tied to the capacity building or himself or herself, nor the capacity development of others, but through changing the conditions surrounding school leadership or governance. For example, Gerstner et al. (2006), in the National Teaching Commission's *Teaching at Risk: Progress and Potholes*, outlined how strengthening leadership is a facet of education transformation, and defines this strengthening as giving "school leaders more authority" (p. 64) by removing constraints placed upon them by teacher unions. Odden and Clune (1995) agree. They claim that system reform and improving school performance are enabled through "high-involvement management:" a system

that allows principals to be "given decision-making authority" with commensurate increase in accountability" (p. 7). Thus, the National Teaching Commission, as well as Odden and Clune, emphasize that principals need increased authority to maximize their influence in achieving school reform. This avenue of increasing principals' ability through changed circumstances also presupposes that a principal has the capacity to facilitate reform if given the unfettered opportunity, an assumption that may or may not be accurate.

Principal Capacity Has Been Assumed, Underexplored

As researchers claim that principal capacity can be increased through shared leadership and increased authority without regard to improving personal abilities, an assumption embedded within these claims is that principals have the individual skills, knowledge and dispositions to utilize these resources effectively if given the chance. Because capacities of principals have been largely assumed until recent times, the literature exploring the building of principal capacity is relatively new and sparse. It wasn't until the late 1990's that the preparation of school leaders became "a major global educational issue" (Wong, 2004, p. 139). During and before this time, Grissom and Harrington (2010) note how a "large amount of literature" studied the effect of building teacher capacities, not assuming teachers' automatic abilities to be effective practitioners (p. 583); in contrast to the assumed capacities of teachers and the large volume of studies on them, "few studies have analyzed the importance of professional development for school principals" (p. 583). Even in the last few years, the support for new principals is less studied than the supports offered to new teachers (Turnbull et al., 2013).

Assumed Capacities Reflected in Lack of Rigor in Certification Programs

Perhaps because of this newfound realization and emphasis on a principal's personal capacities, there has been a historical lack of rigor in administrator certification programs.

Reflecting on his review of preparation programs for various fields nationwide, Levine (2005) claimed that "educational administrator programs are the weakest of all the programs" (p. 31), noting general complacency among students and institutions alike for nominal entrance requirements and lack of academic rigor. Regarding the disparate qualities of preservice training nationwide, Darling-Hammond et al. (2007) note that preservice development for administrators "often fail... to link theory with practice, is overly didactic, is out of touch with the real-world complexities and demands of school leadership, and is not aligned with established theories of leadership" (p. 5). Considering the important role of the principal and the mantle for ensuring these future school leaders demonstrate certain competency levels, it can be wondered if such lacking rigor reflects assumed capacities of those seeking training to become administrators. Whether preservice programs collectively suffered from poor quality for this or other reasons, the lacking quality of professional development continues to haunt administrators once they enter the fields. Professional development for principals was found to be even less effective than preservice programs (Hallinger & Murphy, 1991). The lacking rigor and quality of both preservice and inservice capacity-building opportunities for principals is ironic considering those providing and receiving the training are regarded as education experts.

School Districts' Dangerous Assumptions

Researchers pose that perhaps that approaches to leadership development are related to organization's beliefs surrounding the construct of leadership rather than the process of leadership development. Bryman (1996) chronicles a history of leadership in terms of leaders' ability to influence goal achievement within an organization and leaders' ability to create a sense of what is important for an organization. He claims that stages in history were accompanied by different views of leadership, including the Trait Approach, the Style Approach, the Contingency

Approach, and most recently, the New Leadership Approach. These approaches respectively emphasize hiring the right person, providing training to create the best leader, aligning the leader with a situation to match their ability, and reframing leadership to include more stakeholders. Bryman emphasizes how the adoption of any view has subsequent implications for how organizations view recruitment, training, and placement of leaders in certain situations. Writing specifically about school organizations, Hanna (2001) notes that schools are a confluence of many activities that explain the results we are getting, both good and bad. Applying this model to administrators in addressing their problem of practice, Hanna will assert the importance of understanding administrators' key paradigms, which can operationally be thought of as capacities, that drive behaviors. Thus, Hanna's emphasis focuses less on recruiting, training, and placing leaders to maximize their capacities, but in understanding the drivers behind capacities. Should school districts subscribe, for example to a Trait Approach of leadership, or in focusing on a principal's drivers than their capacities, one can see why school districts may provide novice principals with inadequate supports which do not adequately build their capacities.

Current notions of capacity and capacity development are further appreciated when one becomes familiar with other leadership frameworks. Scott and Davis (2007) highlight various constructs of leadership promulgated by various theorists. Weber, they explain, noted that bureaucracy routinized not only labor, but administration, and that various leadership structures imply inherently different levels of authority. Taylor's notion of Scientific Management emphasized the controlling aspect of management rather than the capacity development of the leader. Similarly, Fayol's Administrative Theory focused on maximizing organizational structures, such as leader to subordinate ratios, rather than leader training. McGregor's Theory X and Theory Y propose that management's level of supervision of workers should be influenced

by worker assumptions. Other leadership theories emphasize more relational rather than structural aspects of management. Stone and Patterson (2005) argue that for the benefit of the organization, managers must address human affairs in part because these affairs are intertwined with workers' satisfaction, which affects their productivity. Bryman (1996) proposes that relationship-motivated forms of leadership is appropriate in certain in some organizational settings, where task-motivated forms of leadership are more appropriate others. Such a brief synopsis on various ways to conceptualize leadership may shed light as to how school districts and other organizations train their leaders, how these leaders are held accountable, and what opportunities for capacity development may or may not exist, as well as the mechanisms provided to build that capacity.

Capacity Development Is Becoming More Contextualized

More and more, school districts are conceptualizing school leadership in ways that influence recruitment, training, and placement of school leaders (Darling-Hammond et al., 2007; Fink, 2011). Leithwood and company (2004) note the role of organizational context on leadership development, calling for differentiation. They say, "this evidence (of the influence of school demographic factors on leadership needs) challenges the wisdom of leadership development initiatives that attempt to be all things to all leaders or refuse to acknowledge differences in leadership practices required by differences in organizational context. Being the principal of a large secondary school, for example, really does require quite different capacities than being the principal of a small elementary school" (p. 10). The result in acknowledging organizational context in training and placing principals is placement of principals with the highest capacities in the schools of greatest needs (Bizzell, 2011).

Such acknowledgement and sensitivity to workplace context relative to capacity-building resonates strongly with Industrial and Organizational Psychology, a framework on which organizations like schools base their assumptions on workplace behavior. Industrial and Organizational psychologists generally view their field as an ideal framework to consider how and why workers, such as administrators, act the way they do in the workplace, like schools. An Industrial and Organizational framework emphasizes that administrators are members of a larger district operating under its organizational culture and set of goals, driving a shared set of assumptions that define appropriate behavior and responses to various problems of practice. The domains of principal capacity identified in educational research (knowledge, skills, and dispositions) fit hand in glove with the notion of learning outcomes defined in Industrial and Organizational Psychology (cognitive, skill-based, and affective outcomes). As principal capacity becomes explored further, it is anticipated that researchers will draw upon these existing frameworks, and similar others, to better understand the development of school leaders' capacities.

Principal Capacity Inclusive of Skills, Knowledge, and Dispositions

Current notions of capacity-building among school leaders include developing the personal abilities of school leaders, comprised of three capacity domains: knowledge, skills, and dispositions. Following Davis et al.'s (2005) review of certification programs, they note how administrator licensing requirements "generally subscribe to a set of common expectations for the knowledge, skills, and dispositions of school leaders" (p. 1). Melton, Mallory, and Green (2010) echo, "for those in the profession of training and developing school leaders, educational leadership program standards have been aligned with knowledge, skills, and dispositions, and more recently with performance expectations and indicators of the profession" (p. 46). King and

Newmann (2001) also define the domains of capacity the same way. They state simply that "school capacity includes the knowledge, skills, and dispositions of individual staff members" (p. 86). As preparation programs and school districts seek to build principal capacities, they must appreciate these domains of capacity-building.

Building Principal Capacity Worth the Investment

As school districts provide valuable inservice training, they can increase principals' self-efficacy, which not only builds their capacity, but provides for them revitalization (Wahlstrom et al., 2010). Targeted capacity-building, well done, improves school leadership, and supports school improvement (Nicholson, Harris-John, & Schimmel, 2005). Because of the strong links between principal capacity and success in schools, the developing of school leaders is one of the most cost-effective ways of addressing student achievement (Leithwood et al., 2004). Simply put, the capacity building of leaders can enact desired educational changes (Fullan, 2006). While researchers note that some professional development is not as effective as others (Grissom & Harrington, 2010), that should not mean that school districts should give up on capacity development of principals or turn to leaders outside of education to champion school reform. With research highlighting effective inservice professional structures, school districts have more potential than ever to achieve meaningful school reform by improving training quality, then the capacity, of school principals leading that change.

Exploring Administrative Preservice Programs

Lacking Rigor of Preservice Programs

Because of lacking rigor, preservice certification programs are not preparing school leaders. Levine's (2005) critique of preservice programs as the weakest preparatory experience of any profession was based in part on a money-making focus by the accrediting institution in

exchange for increased earning potential for the students, with little regard to academic rigor. M. Christine DeVita, President of the Wallace Foundation, notes that repeated studies have found that "the training principals typically receive in university programs and from their own districts doesn't do nearly enough to prepare them for their roles as leaders of learning. A staggering 80 percent of superintendents and 69 percent of principals think that leadership training in schools of education is out of touch with the realities of today's districts" (Darling-Hammond et al., 2007, p. 1). In a report issued by the National Association of State Boards of Education, it was hoped that administrative preservice "programs provide the skills and knowledge necessary for a candidate to successfully lead and manage a school. Unfortunately, many principals and superintendents believe these programs do not adequately prepare principals for the challenges they face in schools" (Sun, 2011, p. 7). Considering these claims and the vast responsibilities held by school leaders, it is no wonder that school boards, researchers, and principal themselves express concern. The result of ineffective program design, poor mentoring, and lax admission standards means that "too many graduates will eventually be certified, but not truly qualified to effectively lead schoolwide change" (Davis et al., 2005, Introduction). Such lack of readiness to lead schools, even after matriculating from a certification program steps not only from a "misalignment between program content and candidate needs" (Darling-Hammond et al., 2007, p. 7), but also because some facets of the principalship are learned and experienced firsthand. The question then becomes, what are the mechanisms for preservice training do exist that allow administrators to be better prepared for their job?

Components of Effective Preservice Programs

One of the first voices for elements of preservice elements were Peterson and Kelley (2002), noting: "Some of the most successful programs seem to have a clear vision or purpose,

are systematic, and are organized around a thoughtful sequencing of the career development of knowledge, skills, and abilities needed for professional excellence in the principalship" (p. 341). Subsequent education research has echoed these claims with various iterations. Davis and colleagues (2005) note that "research on principal preparation and development programs suggests that certain program features are essential in the development of effective school leaders" (p. 2). Programs were deemed effective if "they provided evidence of strong outcomes in preparing school leaders and... they represented a variety of approaches, designs, policy contexts, and partnerships between universities and school districts" (Darling-Hammond et al., 2007, p. 2). Those programs studied within a sample were found to include "the following elements: a comprehensive and coherent curriculum aligned with state and professional standards..., a philosophy and curriculum emphasizing instructional leadership and school improvement, active, student-centered instructional that integrates theory and practice and stimulates reflection...., faculty who are knowledgeable in their subject areas..., social and professional support in the form of a cohort structure and formalized mentoring and advising by expert principals, vigorous, targeted recruitment and selection to seek out expert teachers with leadership potential; and well-designed and supervised administrative internships" (Darling-Hammond et al., 2007, p. 6).

For principals that matriculate from these kinds of programs, they tend to score higher on ISLLC performance assessment test, received higher performance evaluation ratings by supervisors, and were perceived by teachers as being more effective in managing their schools" (Davis et al., 2005, p. 11). Similarly, Leithwood et al. (2004) note that "these principals reported engaging in practices associated with instructional leadership and organizational improvement at higher rates than principals in the national comparison group" (p. 13).

School Districts' Influence as Consumers and Advocates

It is noted that the degree of influence over administrative preparation programs depends on the state in which they are housed. Some universities catalyze needed changes, while in other states, it is the state board itself with greater influence (Behar-Horenstein, 1995). Levine (2005) suggests that with a market demand for programs that quickly certify its matriculated students, it is the students themselves flocking to these programs that shape the landscape of preservice education.

It becomes an opportunity then, Turnbull et al. (2013) note, for districts to shape preservice programs through mutually-beneficial partnerships: "the process of standards development may draw on the knowledge of preservice partner institutions; and the standards are expected to shape expectations for candidates and the preservice curriculum" (p. 17). Orr, King, and LaPointe (2010) highlight three ways that districts can shape the landscape of preservice education. They can act as *discerning customers* who select programs that emphasize appropriate capacities, as *collaborators* that work in close partnership with universities, or as *competitors* that create their own development programs.

Exploring the History and Structures of Inservice Trainings

Little Research Exists

For various reasons, relatively little empirical research explores principal inservice trainings. While teacher professional development and capacity-building has been explored, attention wasn't given to the capacity building of principals until relatively recently, leading to a sparser research base. Volume of available research aside, Nicholson et al. (2005) note other limitations that exist: that even though schools serve similar purposes, the context of each school can be unique, making it difficult for research to account for their individual complexities. "First,

there is no universal framework that is appropriate across all contexts for exploring education leadership" (p. 3). Not only are schools complex, but Hallinger and Heck (1996) note that so is the job of a principal, being "best conceived as a part of a web of environmental, personal, and in-school relationships that combine to influence organizational outcomes" (p. 6). With such a confluence of factors influencing principal behaviors and outcomes, it is difficult for researchers to control for the effect of professional development in the studies that do exist.

To make matters worse, literature studying inservice training has been muddied with preservice research (Nicholson et al., 2005). All these factors leave readers with a relatively small research base from which to draw in exploring effective inservice supports for school leaders. Regardless of the reasons for such lacking insight as to effective inservice supports, "the absence of substantive research and inservice training is alarming" (Brown, Anfara, Hartman, Mahar, & Mills, 2002, p. 6). With little available information, the quality of support and development programs for novice administrators has been lacking.

Effective Professional Development Needed for Multiple Reasons

Effective professional development for principals is desperately needed. Peterson and Kelley (2002) explain that not only do principals learn on the job, but the principalship "also requires significant investment in knowledge and skill development to become proficient, more than could be expected of preservice (particularly given compensation levels and job demands). Professional inservice development can fill these needs" (p. 316) once new principals are hired. They continue to note that professional development provides "significant opportunities for self-renewal" (p. 343). Nicholson and colleagues (2005) note that continuous professional development also supports principals' "efforts toward school improvement and to revitalize their commitment to maintaining positive learning communities" (p. 15). The capacity-development

of school administrators is also needed to mitigate the disparate quality of administrative certification programs nation-wide (Leithwood et al., 2004) and also to obviate the deleterious effects of principal turnover (Wahlstrom et al., 2010).

Providing effective inservice training is not only needed to build capacity of administrators for their sake and the students' but also to uphold the integrity of the profession. The lack of coordinated skill-development in education "stands in contrast to career paths... such as medicine, architecture, and engineering," leading to "criticism of administrative training and development" when such a low quality of support for principals is observed by those outside the profession" (Darling-Hammond et al., 2007, p. 5). In essence, offering effective professional development supports not only achieves its intended purpose, but also legitimizes the field of educational leadership as a respectable profession. Because principals are "key figures in the effort to improve student learning..." it "is imperative to understand... the special professional development needs they have," Nicholson et al. (2005) argue (p. 16). They conclude that "improved professional development gives principals not only the confidence to take on their leadership roles, but also the competence to be successful" (p. 17).

Professional Development Not Aligned with Principal Needs

Professional development for principals must "be based on participant needs (Brown et al., 2002, p. 10)," but such has not been the case. Darling-Hammond and colleagues (2007) note that "many professional development programs have been criticized as fragmented, incoherent, not sustained, lacking in rigor, and not aligned with state standards for effective administrative practice" (p. 5). The fragmentation of service delivery came in large part because trainings were extracted from different sources with little regard to alignment and subsequent evaluation. This is noted by Davis and colleagues (2005): "inservice training is provided through many disparate

sources, including universities, school districts, county and state departments of education, professional associations, comprehensive school reform programs (e.g., Accelerated Schools), regional laboratories, for-profit and nonprofit organizations, and independent consultants" (p. 14). Peterson and Kelley (2002) also note administrators' development has been wide and disjointed: "the landscape of professional development programs is diverse and fragmented, at times offering high-quality, coherent, in-depth programs and at other times offering marginal, piecemeal, and short-term workshops" (p. 340-341). Others like Nicholson and colleagues (2005) note that professional development has been ineffective because of its unnecessarily passive nature. For these reasons, administrators across the country often receive professional development that neither increases their capacities nor their effectiveness (Grissom & Harrington, 2010).

Needed Inservice Supports for Principals

Structuring inservice trainings can catalyze desired educational change when such training and supports include certain structures. Nicholson and colleagues (2005) summarize the relationship between school change and individual change, and how ongoing professional development and supports provide the link between the two, and that this professional development must occur in context of the job. Darling-Hammond et al. (2007) champion school districts' ability to build administrator capacities, providing guidance as to how administrative development can become a well-connected, "cumulative learning pathway" (p. 7) grounded in theory and practice, leveraging job-embedded learning throughout an administrator's career. The authors continue, contrasting these desirable outcomes with the common, ineffective model of offering "one-shot" workshops (p. 7) that focus on a specific aspect of principal career development. Other effective elements of pipeline development ensure integrated supports that

"optimize candidate growth through a continual cycle of assessment and feedback" (Hitt, Tucker, & Young, 2012, p. 2). These should guide what future professional development each administrator receives (Turnbull et al., 2013), and contain targeted coaching and mentoring components specific to the administrator's needs (Fink, 2011), building his or her self-confidence in tandem with skill development (Davis et al., 2005)—all in a way that integrates the supports with each other (Johnston, Kaufman, & Thompson, 2016).

Exploring the Component of Mentoring

In a study sponsored by the Wallace Foundation, six school districts seeking to support novice administrators all "provided novice principals with formal coaching or mentoring support." They used various strategies and approaches to mentor new administrators, such as "individual goal setting with a support dyad of supervisor and coach/mentor, weekly 90-minute one-on-one support sessions, small cohort group professional learning communities, 'executive coaching' focused on generalizable leadership behaviors, mentoring provided by trained, high-performing, sitting principals," and other supports (Turnbull et al., 2013, p. 43). These opportunities, well-structured, have shown positive outcomes. Sun (2011) highlights how "effective mentoring has the ability to provide novice principals with the opportunity to discuss challenges of the job with a veteran, to collaborate and problem solve with peers and to provide support at a critical juncture in a principal's career" (p. 8). In particular, we "find a significant positive association between principal participation in formal mentoring and coaching and principal effectiveness" (Grissom & Harrington, 2010, p. 585).

Networking in Need of Greater Study

Principal networking is viewed as another impactful learning source. Brown et al. (2002) cites a 1985 study in which "managers showed that they learned 50 percent of their jobs on the job, 20 percent from education and training, and the remaining 30 percent from coworkers, bosses, and

mentors." They go on to claim that "to fully realize that last 30 percent, principals must network with their peers and take advantage of the expertise of their fellow colleagues" (p. 26). These peer expertise, Brown and colleagues claim, allow the sharing of strengths and weaknesses in a mutually beneficial relationship. This process is valued by principals as it not only facilitates the exchange of ideas, but builds a more permanent resource network for the *future* sharing of ideas. While valued by principals, Grissom and Harrington (2010) claim that research done on principal networking "has not been driven by systematic data." They go on to suggest that while positive results had been touted, they believe there are "benefits and drawbacks of networking" that "should be explored in greater depth" (p. 608). Adding to Grissom and Harrington's call for systematic research on principal networking, researchers would also do well to study the benefits of principal networking during preservice and inservice trainings separately. The benefits of preservice networking during a cohort of learners seeking to be administrators are touted (Davis et al., 2005; Preis, Grogan, Sherman, & Beaty, 2007), and the same perceived benefits of networking are projected on inservice trainings, when the benefits may be experienced differently among administrators who are already on the job.

Inservice Supports for Principals Differ by Career Stage and School District

Peterson and Kelley (2002) proposed that curricula for early career administrators focus on different capacities needed by veterans. The notion of career-staged development opportunities grew more traction in the following years (Davis et al., 2005; Nicholson et al., 2005). Now, the Wallace Foundation and other research groups champion career-staged professional developments, emphasizing the need to support novice administrators during the critical first years on the job (Turnbull et al., 2013). These supports are operationalized in principal pipelines that integrate selection, hiring, support and accountability.

Commissioned by the Wallace Foundation, Johnston et al. (2016) studied the types of inservice supports that principals receive while on the job. They found that "almost all principals reported receiving some kind of district-provided, on-the-job supports, although less than a third indicated that their district provided a combination of regular supervisory communication, mentoring for principals at varying experience levels, and at least a day of school leader professional development" (p. 1). A separate study conducted by Mitgang, Gill, and Cummins (2013) note that principals are more likely to be receiving on-the-job supports if they are part of large school districts. The supports received by administrators in districts across the nation vary. There is no external governing or certifying body to safeguard the quality or outcomes of these programs as there is for preservice programs. Also, in exploring the on-the-job supports that principals receive, one study found that principal professional development opportunities were based more on "whims, fads, opportunism and ideology" than sound research and that while participation rates were high, it rarely leads to any changes in practice that had an impact on student addressing principal professional development" (Sun, 2011, p. 8).

Principal Pipelines: A Trending Model for Principal Inservice Development Pipelines Created in Response to Principal Turnover and Shortages

Districts engage in pipelines not only for the increased alignment pipelines facilitate among recruitment, hiring, training, retention, and succession planning of their administrators, but also everything else that comes with such integrated efforts. With targeted attention on novice administrators or those new to their roles or assignments, principal pipelines do much to prevent principal turnover, obviating the deleterious effects during rapid transitions between school leaders. Wahlstrom and colleagues (2010) note that "rapid principal turnover has moderately negative effects on school culture, ... explains a modest but significant amount of

variation in student achievement," and can create to a "lack of shared purpose, cynicism among staff about principal commitment, and the inability to maintain a school-improvement focus long enough to actually accomplish any meaningful change" (p. 165-166). With nearly half of principals leaving within their first five years, principals ascribe their turnover as "feeling like they are in a "sink-or-swim" situation with little support, being overlooked, and spending a majority of their time on non-instructional tasks as the reason they leave the field" (Sun, 2011, p. 4).

Darling-Hammond and colleagues (2007) add that "in most parts of the country, the problem is not a shortage of certified administrators, but a shortage of well qualified administrators who are willing to work in the places of highest demand, especially in underserved communities and schools where working conditions are most challenging" (p. 4). These shortages occur, they assert, in part because "aspiring and practicing principals are frequently ill-prepared and inadequately supported to take on the challenging work of instructional leadership and school improvement. The quality of the preparation experience appears to be related to the willingness of potential candidates to take on this tough job, as well as their ability to survive and succeed in it" (p. 4). They then advocate that "recruiting the right people, preparing them comprehensively, and supporting them as they lead schools is essential to improve the pool of available school leaders, decrease turnover in the principalship, and foster stability and reform in schools, which in turn is needed to foster the development of students' abilities" (p. 5).

In providing their own supports to novice administrators, school districts not only prevent new principal turnover, but this grow your own philosophy offers a ready supply of prepared leaders who can be called upon when the need arises, reduces the costs of recruiting, minimizes the cost of personnel turnover, and reduces the time it takes for newly hired leaders to get up to speed (Fink, 2011). As districts launch inservice initiatives to build capacities of school administrators, districts face initial obstacles in recruiting qualified candidates and also in the resource constraint of "people's time, energy, and commitment" (Fink, 2011, p. 672) in getting inservice initiatives off the ground. Such comprehensive inservice programs leave districts with administrators with needed "habits of mind and professional network connections that should foster continued growth and development throughout the principals' career" (Peterson & Kelley, 2002, p. 341). Many school districts across the country are incorporating research-touted structures of building administrator capacity into pipeline developments, meeting specific needs of their districts (Turnbull et al., 2013). Such inservice trainings are customizable to districts' own needs and priorities, allow the district to utilize their in-house expertise, and they cultivate and identify potential talent at earlier stages (Turnbull et al., 2013).

Pipeline Benefits on Principal Outcomes

The benefits of targeted, career-staged supports from districts are many. Darling-Hammond et al. (2007) note how principals who received pipeline supports form their districts "were significantly more positive than principals nationally or in our other states in both their assessments of program quality and their perceptions of their own preparedness for most dimensions of leadership: They rated themselves significantly better prepared than the national average on 21 of 22 dimensions of preparation" (p. 127). What is more, with its comprehensive focus and intentional capacity-building for assistant principals to become principals, Fink (2011) notes how pipelines prevent the unwanted phenomenon of "bifurcated career paths" (p. 599) where assistant principals are either disciplinarians or instructional leaders.

Pipeline development programs, properly structured, avoid traditional pitfalls of professional development for administrators. Nicholson et al. (2005) note that traditional development models for principals have been laden with design flaws, being overly topical and disjointed, structured with a one-size-fits-all approach, presented with the implication that great change can be wrought by minimal effort, and they focus on awareness rather than skill-building. He notes also that principal development is received by principals with a degree of stigma because its very nature can be perceived by its recipients as remediation or an acknowledgement of having deficiencies. The restructuring of principal professional development into a universal pipeline support system addresses design flaws in creating systematic, sequential learning, restructured to meet their needs, facilitated through communities of practicing educators—all treating the principal as an adult learner.

Effective Pipeline Components

Evidence indicates that effective administrative development inservice programs share certain features and design elements. Skills and knowledge should be coordinated and research-based, have curricular coherence, provide authentic learning, be structured in cohorts, and be sequenced by career stages with a clear vision (Davis et al., 2005; Peterson & Kelley, 2002). This notion of a well-connected, "cumulative learning pathway," grounded in theory and practice, leveraging job-embedded learning throughout an administrator's career, contrasts with the common, ineffective model of offering "one-shot" workshops (Darling-Hammond et al., 2007, p. 6-7) that focus on a specific aspect of principal career development. Building the capacities of administrators cannot be done by professional development alone. Cohort groupings, clinical experience, and standards-based learning must be expertly supervised with consistent communication with their supervisor (Darling-Hammond et al., 2007) and contain

targeted coaching and mentoring components specific to the administrator's needs (Fink, 2011) that build his or her self-confidence in tandem with skill development (Davis et al., 2005)—all in a way that integrates the supports with each other (Johnston et al., 2016). An essential way to integrate these supports and also to "optimize candidate growth (is) through a continual cycle of assessment and feedback" (Hitt et al., 2012, p. 2). Turnbull et al. (2013) summarize desirable pipeline components more succinctly: "that programs would be standards-based; recruit and select strong candidates; organize participants into cohort groups that collaborate and progress together; link theory and practice through instructional approaches such as problem-based learning; and offer robust clinical internships or inservice learning, expertly supervised" (p. 4).

Inservice supports can meet districts' and administrators' needs particularly when knowledge is acquired in relation to one's surrounding district and community context and also the administrator's particular career stage, as advocated by Hitt and associates (2012). They add that the most successful inservice programs have a clear vision, are systematic and organized around thoughtful sequence of knowledge, provide skills to replace those retiring principals, includes coaching, develops program culture and sense of membership. Structured this way, inservice trainings will fulfill the three purposes of principal development: to develop organization-specific knowledge, to maintain the currency of knowledge and skills that are rapidly changing, and to provide an opportunity for personal reflection. (Peterson & Kelly, 2002). Districts who have been enacting pipelines have lessons learned to share. The Wallace Foundation, in funding multiple school districts to enact such pipelines, challenge them to adhere to four key components of pipeline development for administrators: school leader standards, selective preparation requirements that match district priorities, selective data-driven hiring, and standards-based evaluation (Anderson & Turnbull, 2016). At the same time, while adhering to

these standards should be rigid, the Wallace Foundation encourages pipeline districts to be loose in terms of different district approaches and points of emphases. All districts took charge of their own work, put these components in place and refined them year by year.

Intensive Supports Viewed as an Investment

Considering the influence of principals on student learning, districts are rethinking the emphasis they place on pipeline supports. "Where once money spent on leadership recruitment and development was considered a cost, it is now viewed as an investment and as a result some school authorities have shifted focus from 'replacement planning' in which specific people are identified to fill certain jobs, to a 'succession management' approach which involves building an organization's leadership capacity by identifying, recruiting, and developing a 'pool' of high-potential individuals for both current and future roles" (Fink, 2011, p. 670). Such development builds capacities of school leaders, helping them in realizing the potential over student learning in schools.

Formal Mentoring: Its Importance, Assumptions, Benefits, Pitfalls, and Recommendations Critical, Expanding Roles Call into Question Principals' Receipt of Needed Supports

With a "daunting array of roles" of overseeing instruction and assessment, community building and public relations, budgets and facility management to name a few, administrators must have "a sophisticated understanding of organizations and organizational change" (Darling-Hammond et al., p. 1, 2007), as well as a multitude of other capacities (Fullan, 2010) to lead today's schools. Effectively fulfilling these roles allows school leaders to maximize their 'influence on student learning,' an influence second only to classroom instruction" (Louis et al., 2010, p. 9). Davis et al. (2005) note that indeed, "the field has begun to give overdue recognition to the critical role and mounting demands on school principals," but the question remains: "…are

present and future principals getting the professional preparation they need to meet them? (Introduction).

Formal Mentoring Often Included in District Pipeline Supports

In providing new principals supports needed to fulfill their roles, school districts provide novice administrators formal mentoring. Mentoring for school principals can take a variety of forms. Recall that in studying six districts with coordinated pipeline development programs, Turnbull et al. (2013) noted the existence of different strategies that fell under the auspice of mentoring. Mitgang (2012) highlights the mentoring structures of several districts, illustrating variance in providing this formal support to novice administrators. Gwinnet County Georgia, like other school districts, "begins its support for novice leaders with a summer institute that gathers more than 800 new and veteran principals, assistant principals and other school leaders for several days of collaborative learning and professional development with national experts," followed by years of coaching by retired principals (p. 25). For New York City principals, Mitgang (2012) contrasts, "the NYC Leadership Academy offers coaching to all first-year New York City principals," starting the year with "a self-assessment.... Based on the assessment, the principal and mentor identify three main coaching goals that become the basis for an 'Individualized Growth Plan.' Along the way, new principals can draw on the Academy's specialist coaches for help in conducting school-data analysis and budgeting" (p. 25). In his work, Daresh (2001) heralds districts who collaboratively work towards such an individualized growth plan. Davis and colleagues (2005) note that regardless of the structure of mentoring, it should facilitate several essential outcomes. "Mentoring relationships should serve to reduce the distance between a learner's independent problem-solving performance and his/her potential developmental level achieved through problem solving with guidance from an expert" (p. 10).

They continue, "the primary role of the mentor is to guide the learner in his or her search for strategies to resolve dilemmas, to boost self-confidence, and to construct a broad repertoire of leadership skills. Competent mentors do this through modeling, coaching, gradually removing support as the mentee's competence increases, questioning and probing to promote self-reflection and problem-solving skills, and providing feedback and counsel" (p. 10).

Mentoring to Enhance Experiential Learning

With increasing demands and responsibilities contrasted with inadequate preservice training to help them prepare for their work, some certified administrators have chosen to not enter into the profession. Daresh (2004) comments how it "is clear that educators were increasingly avoiding careers in administration because they were fearful of taking on responsibilities that are filled with demands for accountability but with little support...." He continues, "One can only wonder why anyone would actively pursue a job with high stress and demands for effective performance with little organizational promise of assistance. Mentoring programs, particularly with sponsorship by employing school districts, may signal a commitment of support for newcomers" (Daresh, 2004, p. 512-513). Considering the limitations which preservice programs have, district-facilitated mentoring can better match the dynamic, experiential nature of the principalship by guiding new principals once they are hired. Grogan and Crow (2004) note that "universities cannot replicate the hands-on, insider perspectives that mentoring would provide" (p. 464).

While administrators learn from on-the-job experience, doing so with an effective guide will further enhance their capacities. Peel, Wallace, Buckner, Wrenn, and Evans (1998) note that "not only do future administrators need experience on the job, they also need someone to serve as a guide through the process, a guide who is interested in the future administrator's progress

and wants him or her to succeed" (p. 28). Daresh (2004) asserts that "mentoring must be included in any experiential professional development program. Guides, counselors, or coaches are needed to help professionals negotiate their way through a field and make sense out of what is happening around them in an organization and also what is going on in their personal lives. As a result, there is considerable potential to be found in applying the concept of mentoring to the professional development of school administrators" (p. 500). Such is the goal of assigned mentoring, Davis and colleagues (2005) echo. "Mentoring relationships should serve to reduce the distance between a learner's independent problem-solving performance and his/her potential developmental level achieved through problem solving with guidance from an expert. The primary role of the mentor is to guide the learner in his or her search for strategies to resolve dilemmas, to boost self-confidence, and to construct a broad repertoire of leadership skills. Competent mentors do this through modeling, coaching, gradually removing support as the mentee's competence increases, questioning and probing to promote self-reflection and problem solving skills, and providing feedback and counsel" (p. 10).

The importance of formal mentoring has been recognized by districts nationwide. In *Creating Strong Principals*, Mendels and Mitgang (2013) note that "since 2000, more than half of U.S. states have adopted mentoring requirements for newly hired principals. In addition, more districts have expanded and sustained their support despite budgetary headwinds" (p. 27). Yet, some mentoring relationships are ineffective, and sometimes even counterproductive, leading districts to question—*why?*

Underexplored Predispositions of, and Inherent Complexities in Studying Mentoring

Daresh (2004) posits the existence of an underexplored variable that allows for the effective mentorship of new principals. Having a "predisposition to learning" is a needful

precursory capacity to mentoring. Without this predisposition, he continues, "it is not likely that any mentoring will have an effect on beginning or experienced school principals" (Daresh, 2004, p. 511). Called "anticipatory socialization," Crow (2006) echoes that this possible limiting factor of principal learning and success "has rarely been researched" (p. 32). Existing studies assert that "some people have more learning agility and are better protégés than others, thanks in part to their emotional intelligence and their propensity for introspection and reflection" (Hill, 2003, p. 324). Adding to the difficulty in measuring the effects of mentoring is not only the presumed dispositions of mentoring protégé's, but also because the term mentoring "is used acontextually and inconsistently to describe a wide variety of interpersonal relationships" (Mertz, 2004, p. 541). Mertz (2004) continues to explain how the "absence of a definitional consensus is stymieing efforts to synthesize empirical findings into a coherent body of knowledge" (p. 543), leaving "no consistent definition across districts" (Turnbull et al., 2013, p. 39). Thus, studying principal mentoring is not difficult due to disparate protégé propensities and inconsistent use of the term mentoring, but also because of the various intents of the mentors, not to mention their abilities. Evaluation measures seeking to gauge the effectiveness of mentoring are unable to parse out these variables from one another, Guskey (2000) notes. For evaluations of such professional development are not even often rigorous enough to separate participant satisfaction levels with changes in their capacity (Guskey, 2000).

In mentioning participant satisfaction levels with mentoring, whether in this or other studies, it should be realized that formal mentoring may be helping administrators, but the effects may not yet be realized. It is possible and likely that some of the capacity sources identified by administrators were facilitated by prior mentoring, yet not recognized due to its delayed and indirect benefit. It could also be the case that even for administrators who assert that mentoring

was a negative and wasteful experience, it may have served as an influential capacity source so long as the mentors were addressing the right topics, even if their manner in doing so did not resonate with the protégé administrator. This phenomenon of "field effects" suggest that by merely bringing up an issue to grapple with, the process itself is productive by framing future thinking and drawing attention to the topic at hand (Burch, 2007). Also, for principals who did not identify formal mentoring as helpful, this may be more a reflection of their unwillingness to learn than the mentor's ability to build capacity, as Nicholson and colleagues (2005) imply: through their own negative dispositions, principals can provide their own barriers to benefitting from professional development.

Benefits of Mentoring to the Principal Outlined

When Turnbull and colleagues (2013) asked about mentoring, administrators gave generally positive ratings about the support they received and generally attested that the support led them to make changes in their work. While mentoring is spoken of positively by administrators such as in Turnbull et al.'s study, research is yet to link "principal coaching to school outcomes," but instead, "there is some evidence that it positively affects principal behaviors, such as time spent addressing instructional issues with teachers" (Grissom & Harrington, 2010, p. 588). In addition, Grant (2014) notes, the process of purposefully working towards set goals can enhance well-building, build self-efficacy, help develop solution-focused thinking, build resilience and self-regulation for the leader, experience greater self-efficacy, develop readiness to enact change, have improved job satisfaction, and have increased ability to deal with workplace stress.

Daresh (2004) summarizes the benefits of mentoring to novice principals in five points.

Mentoring allows protégé administrators increased confidence regarding their abilities, helps

them put theory into practice, assists in developing better communication skills, learns the tricks of the trade, and builds a sense of belonging. Daresh (2004) also notes the benefit mentoring provides in value formation, defined as enabling the novice principal "to become more aware of his or her own personal values and assumptions regarding the role of a school administrator" (p. 502). In addition, mentors provide their protégés "career advancement and psychosocial support" (Ehrich, Hansford, & Tennant, 2004, p. 520), as well as increasing some specific desirable "principal behaviors, such as time spent addressing instructional issues with teachers" (Grissom & Harrington, 2010, p. 588).

Mentoring also Benefits Mentor and School Organization

More than benefitting the protégé alone, formal mentoring has the potential to "yield many benefits to those being mentored, schools and school systems, and also to those who serve as mentors. In fact, there have been identified a great many benefits to be derived from well-designed mentoring programs for beginning school principals" (Daresh, 2004, p. 503). For mentors themselves, "the greatest number of rewards for mentors are found in the area of increased job satisfaction" in "grooming a promising new administrator is a challenging and stimulating" (Daresh, 2004, p. 504), in "seeing the values and culture of a school system handed over to a new generation," in getting "increased recognition from their peers" because of the mentoring, and also because mentoring "gives them opportunities for personal career advancement" (Daresh, 2004, p. 504). In addition, Ehrich et al. (2004) claim that mentoring novice principals "rejuvenates mentors' careers because it enables them to assist and shape the professional and personal development of mentees" providing the mentor "increased confidence, personal fulfillment, and assistance on projects" (p. 520). Thus, a mutually beneficial endeavor from which all participants can find great satisfaction, career promotion, and other benefits.

The process of mentoring not only benefits the organization through the increased capacity and efficacy of novice and veteran administrators, but also in other ways. These additional "benefits of formal mentoring programs, include(e) increased productivity, improved recruitment efforts, motivation of senior staff, and enhancement of services offered by the organization" (Ehrich et al., 2004, p. 520). Considering the potential for such personal and organizational renewal formal mentoring offers, Daresh (2004) argues that "support for mentoring is truly a small price to pay for a chance at the kind of reform and renewal now needed in many schools" (p. 513).

Pitfalls of Mentoring Programs

The realization of benefits that formal mentoring offers to protégés, mentors, and school organizations are realized to the extent that programs are structured in ways to facilitate these results. While researchers tout the benefit of these formal programs, they also note how this mentoring, if not structured well, can be ineffective and even counterproductive. Some mentoring programs have not differentiated needed supports to principals based on their individual strengths and needs, resulting in an ineffectively applied "one-size-fits-all" approach. Daresh (2004) notes how district mentors can be inflexible to the detriment of their protégés, and how these "mentors usually retain the same titles and responsibilities without regard for the different needs and interests of people who are the recipients of mentoring activity" (p. 499). Another pitfall inherent in mentoring stems from the pairing of veteran with novice administrators. Daresh (2004) extrapolates: while veterans have experience from which they can draw in shaping the protégé, such experience, if not dispensed by the veteran with sensitivity to current "social realities" in which novice administrators work, can "use mentoring to promote cloning, not growth" (p. 512). Said differently, Grogran & Crow (2004) note now "mentoring

can produce unwanted side effects of stifling innovation and perpetuating the status quo" (p. 466).

The "Dark Side" of Mentoring

Mertz (2004) finds that formal mentoring relationship for novice administrators have "varied widely from satisfactory, or better, to dysfunctional and even harmful" (p. 545). For just as mentoring that is beneficial to protégé growth requires the right structures and conditions, the wrong conditions can produce negative results. Such detrimental experiences occur when there is "a lack of time for mentoring, poor planning of the mentoring process, unsuccessful matching of mentors and mentees, a lack of understanding about the mentoring process, and lack of access to mentors from minority groups" (Ehrich et al., 2004, p. 520). These undesirable conditions described by Ehrich and associates are certainly what Alsbury and Hackleman (2006) refer to as "poorly designed mentor programs" which they assert "can result in mentor relationships that are detrimental to protégé development" that turn potentially mentor programs "into systematic mechanisms to reproduce and perpetuate mediocre and ineffective leadership methods" (p. 171). While outlined in Long's exposé *The Dark Side of Mentoring* (1997), these negative outcomes of formal mentoring have remained underexplored (Ehrich et al., 2004), leaving school districts with the impression that even poorly-structured mentoring programs will yield positive results, or at least do no harm. In fact, there is a documented "time-intensive downside of mentoring, the toll of personality mismatches, and the costs of ideological differences between mentor and protégé" indicating that in such cases, "the absence of mentoring would have served them better" (Grogan & Crow, 2004, p. 465).

Recommendations for Mentoring Programs

While mentoring programs have been touted for their success, they may not have been based on sound research. Ragins and Colton (1999) conclude that "formal mentoring programs are being developed without the benefit or guidance of empirical research" (p. 529).

Consequently, school districts may have overlooked the benefit of less formal mentoring relationships. Ragins and Colton continue, "Many organizations simply assume that formal relationships are as effective as informal relationships and implicitly offer their employees formal relationships as a substitute for informal mentoring relationships" (p. 529).

Considering the possible negative outcomes that can occur should formal mentoring be poorly structured, careful planning must accompany the establishment of formal mentoring within school districts. First, "whatever agencies take on the responsibility for initiating mentoring programs, attention must be paid to the ways that administrative mentors are first selected for this role and prepared to work with their protégés" (Daresh, 2004, p. 512). Second, districts must maintain their commitment to such programs without interruption of mentoring service to protégé principals, including the securing of funding sources. Third, school districts must develop a culture in which all principals "become more active players in the development and maintenance of mentoring programs for inexperienced colleagues" (Daresh, 2004, p. 512). Also considering the toll of mismatches between mentors and protégés, district should tend to "careful matching of mentors and those who are to be mentored" to give the mentoring relationship the greatest chance of success" (Daresh, 2004, p. 503).

In addition to these structures, education researchers advocate for the training of principal mentors and also principal protégés to build their skills and dispositions in ways most conducive to the future mentoring that will take place. For the training that principal mentors can receive,

Turnbull and associates (2013) praise successful districts who have "worked behind the scenes to build these skills in the district staff working with principals" (p. 47). For the protégés themselves, Searby (2008) promulgates that to be successful principals, they will need to learn how to receive mentoring how to be a protégé that accepts training from a mentor.

Modeling, More So than Mentoring, Identified as a Capacity Source Job-Embedded Capacity Sources Are Preferred

Principals naturally turn to capacity sources that are embedded in their work, rather than those take time away from it. Lunenburg and Orstein (2004) claim that principals are not comfortable with theories, but rather prefer "practical prescriptions for administering their schools" (p. 3). Commenting on professional development supports that take principals' time away from their schools, Grissom & Harrington (2010) claim "these activities may substitute significantly for time that they might otherwise spend managing school affairs or building relationships with staff" (p. 607). Thus, for any capacity sources perceived or experienced as theoretical more than practical, it is not surprising why novice principals do not turn to these supports, turning instead to others that are embedded in their work, even if these supports are informal or not endorsed by their district.

Similar Others Build Self-Efficacy, Even Though Modeling They Provide Is Informal

Furthermore, capacity sources are utilized more readily if they are presented in ways which build novice principal efficacy as well as capacity. This building of self-efficacy may serve as an important distinction between formal mentoring supports in which assigned mentors are veteran district leaders who are not perceived as similar enough to novice administrators being mentored. In "Self-Efficacy Mechanism in Human Agency," Bandura (1982) reveals how observing others in similar situations acts as vicarious experiences that build the observer's

capacities to address problems. He extrapolates that "people do not rely on enactive experience as the sole source of information about their capabilities. Efficacy appraisals are partly influenced by vicarious experiences. Seeing similar others perform successfully can raise efficacy expectations in observers who then judge that they too possess the capabilities to master comparable activities.... Competent models also teach observers effective strategies for dealing with challenging or threatening situations" (p. 126-127). This efficacy is increased the more the modeling administrator appears to be the same as the observer. Thus, one possible reason that mentoring is not identified as prevalently as other sources of capacity by novice principals is that perhaps the formally-assigned district mentors are not regarded as "similar others" by the protégés, thus not affecting their "efficacy expectations" nor their capacities. If out-of-building district leaders are the capacity sources providing assigned mentoring, then efficacy expectations may also account in part for the study's finding that the more involved a dissimilar capacity source is involved in the development of the administrator, the less likely the source is to be identified as a source of his or her capacity.

Informal Mentoring Legitimized and Defined

The fact that the "similar others" who model desired capacities do so informally rather than formally has no bearing on the efficacy expectations or the resultant capacities built for the observing protégé administrators. Thus, informal mentoring can be a significant source of capacity for new principals, even though the observed principal has no idea he or she is being observed and later emulated. While formal mentoring includes an assigned mentor to provide support and direction to a protégé in a professional relationship that is acknowledged by others, "informal mentoring relationships form by chance, without any rearranged schedule or agenda. They are less structured, spontaneous, self-directed and not recognized by the organization. The

main difference between formal and informal mentoring is the intensity, commitment, duration and structure of the relationship... offer(ing) more benefits than formal mentoring relationships" (Bynum, 2015, p. 70). Thus, while informal mentoring has fewer directed structures to support the capacity-building of a new principal, this lack of structure provides virtually no limitations, and can soon outweigh the benefits of formal mentoring.

Benefits of Informal Mentoring

Informal mentoring offers a greater pool of mentors as well as increased flexibility of supports. Mullen (2009) observes how formal mentoring often involves one person, while modeling, or what he coins "informal mentoring" invites the possibility of multiple models to influence the protégé concurrently. Using the same term as does Mullen, Bynum (2015), in *The Power of Informal Mentoring* describes the appeal of informal mentoring as having "flexibility and diversity in mentors" (p. 71) because there are more people to draw from in seeking aid, in contrast to only having fewer people to turn to in formal mentoring. This type of collaborative mentoring from a diverse group of people has particular benefits of relational learning in building the capacities of female leaders, Emelo (2011) notes, yet builds the skills of male administrators as well.

The prevalence of informal mentoring, or modeling, and its noted benefit to female administrators builds on the insights of Méndez-Morse (2004), who found that Latina administrators in her study, in the absence of available formal mentors, "essentially synthesized the skills, abilities, and attributes of the individuals to develop those competencies in themselves. What emerges is an implicit, rarely articulated phenomenon in which mentorship (however abstract, faceless, and nameless) is constructed from a variety of resources" (p. 586). Female administrators in her study created their own role models from their own constructed learning,

both from their personal and professional sources. Méndez-Morse (2004) found that these exemplars "mitigated the absence of a formal, traditional mentoring relationship... that collectively met their specific needs and priorities" (p. 561). Thus, the practice of constructed mentoring is not a phenomenon used only to "mitigate the absence for a formal, traditional mentoring relationship," but also enhances existing ones. Informal mentoring, or modeling, is perhaps a more prevalent capacity source among administrators not only because of ease of access to administrators within the same school building, but also because of increased likelihood of witnessing peer administrators addressing problems of practice of concern to the protégé administrators.

Informal Mentoring Allows for More Conducive Learning Relationships

When one also considers the inherent differences between formal mentoring and informal mentoring, one may naturally may conclude that informal mentoring is the more ideal source of support for novice administrators. Ragins and Colton (1999) outline that "there are distinct differences between formal and informal mentoring.... the way the relationship is initiated, the structure of the relationship, and the processes involved in the relationship" (p. 530). They go on to describe each fundamental difference, first explaining that with informal mentoring, "mentors and protégés are selected based on mutual identification, meeting needs of both parties." In contrast, during the assignment of formal mentors, "interpersonal comfort often does not play a role, ...(being) less likely to be founded on mutual perceptions of competency and respect" (p. 536).

With less potential to have mentoring relationships founded on notions of respect, formal mentoring is less able to achieve its desired outcomes. The potential of informal mentoring over formal mentoring becomes even more impressive as one contrasts their inherent structures.

Ragins and Colton (1999) expound on the differences of informal and formal mentoring structures that have implications for the length of time novice principals receive this mentoring and the extent which mentoring adapts to protégé's needs throughout time: "formal and informal mentoring relationships differ in the length and formality in the relationship. Informal relationships last between 3 and 6 years, whereas formal relationships are usually contracted to last between 6 months and 1 year" (p. 531). In addition, they note that "the goals of formal relationships are specified at the start of the relationship.... In contrast, the goals of informal relationships evolve over time and adapt to the career needs of the individuals" (p. 531).

More than just a function of time, the structures of formal mentoring limits the emotional closeness and subsequent openness with which a novice administrator engages in formal mentoring. Feeling that formal mentors only assist them because of assignment, formal mentors may not perceive the mentor's commitment or believe their encouragement to be genuine. What is more, the process of matching formal mentors with protégé administrators may create less effective relationships if novice principals do not share the perceptions that their mentors are competent. Thus, because of the increased likelihood for a relationship based on respect, adaptation to evolving needs, and internalizing of mentors' motives as genuine, informal mentoring structures create a relationship more conducive to mentorship and capacity-building.

Because of these relational benefits and increased availability over formal mentoring, informal mentoring is a capacity source to which novice administrators turn. After studying the types of mentoring supports which female administrators receive, Bynum (2015) concludes that "informal mentoring relationships are just as effective for professional and personal improvement when a more formalized program cannot be implemented" (p. 71). Because of the benefits which informal mentoring provides, one can assert that these informal mentoring

relationships are preferable even when formalized programs are in place. Ragins and Colton (1999) find that "protégés with informal mentors would report more career development protégés with formal mentors" (p. 537), and that "informal protégés would have achieved more than those who become formal protégés even without their mentor's assistance" (p. 544).

Informal Mentoring Underutilized

Districts do not often leverage informal mentoring as a capacity source, but easily could. Mitgang, Gill, and Cummins (2013) note that "districts can... help principals develop instructional leadership muscle by flexing some of their own. 'Modeling or demonstrating particular ways of thinking and acting are essential strategies for helping... school principals change their work practices,' write University of Washington researchers. One way to do this is to create high-quality opportunities for principals to serve as resources for one another. Unfortunately, districts rarely establish such professional networks, or, when they do, not in a way particularly valued by principals" (p. 22). This does not call for an abandonment of formal mentoring programs. Districts should not view one type of mentoring as a substitute for another, but seek ways to incorporate both types of mentoring into situations for which they are most appropriate. "For example," Ragin & Colton (1999) note, "formal mentoring relationships may be quite useful for immediate performance measures, such as on-the-job training, or as an impetus for the development of early career and performance goals," (p. 544) more so than informal mentoring in these cases. Informal mentoring is viewed as a more effective mentoring type than formal mentoring in providing someone who is "willing to listen to [a new administrator's] concerns and who could introduce and socialize them into informal administrative networks" (Alsbury & Hackmann, 2006 p. 183). By intentionally "scheduling time for informal networks" (Eller, 2008, p. 28) at times most appropriate to do so, it is

anticipated these networks will be valued by principals, build their needed capacities, and help them realize their effect sizes over student learning.

Considering the many instances where informal mentoring offers markedly positive results on principal outcomes, districts are encouraged to embed informal supports as often as appropriate. "One clear implication of this study is that formal mentoring programs should not be considered as a substitute for informal mentoring relationships but should be offered in partnership with informal relationships. Formal mentors are probably most effective when they approximate informal mentors in as many ways as possible. Along those same lines, where possible, formal mentoring programs should mimic the development of informal relationships" (Ragins & Colton, 1999, p. 546).

Role Socialization

When considering the sources of novice principals' capacity, districts should also note the effects of role socialization that occurs on the job. While formal and informal mentoring structures affect the capacities of novice administrators, school districts would be remiss to believe that these are the only sources of capacity building that come from their on-the-job experience. In fact, the daily interactions administrators have with non-supervisors and non-peers, such as parents, teachers, and students, socialize principals into their roles in fundamental ways. Crow (2006) notes that "the traditional sources of beginning US principal socialization include teachers, veteran principals, and professors, i.e. educational agents" (p. 319). He continues, "Certainly teachers and other principals have a tremendous amount of influence on the learning of beginning principals. These individuals present dilemmas for the new school leader, provide or hoard information, and test the new leader's authority and values. But students and

parents also serve as socialization sources for the new principal" (p. 319). These interactions, he asserts, affect the "role conception, norms, and behaviors of US principals" (p. 320).

Dispositions of Novice School Principals

Principal Dispositions Underlie Actions, Can Be Targeted and Impacted by Districts

Dispositions define how principals think and act, and are a desirable target for districts seeking to build novice principals' capacity. Rike & Sharp (2008) note that the importance of principals having certain desirable dispositions is reflected in the requirements of bodies certifying principal applicants. "Many national exams and state licensure programs as well as professional organizations stress appropriate dispositions as being equally important to effective teaching as knowledge and skills" (p. 150). The capacities of school leaders are multi-faceted, including "the knowledge, skills, and dispositions of individual staff members" (King & Newmann, 2001, p. 88). Cognition and behavior do not stand in isolation of themselves or each other, but are affected by one's dispositions, such as their attitudes (Fazio, 1986). Because a principal's disposition becomes the mechanism through which their skills and knowledge are operationalized, school districts may intentionally target principal dispositions through inservice supports offered.

It is possible for districts to affect dispositions through inservice trainings. Melton and colleagues (2010) believe that although the term disposition lacks current consensus, it is possible to identify, assess, and impact the dispositions of school leaders, positively impacting education reform. Principal dispositions are more readily impacted during inservice supports rather than preservice supports since novice administrators experience first-hand the demands of the principalship and reflect on their practice (Richardson, 1996). Knowing this, Richardson invites districts to consider trainings with "a considerable de-emphasis of skills and behaviors in

favor of an emphasis on the formation or transformation of teacher thinking and reflective processes, dispositions, knowledge, and beliefs" (p. 9).

Examples of programs thus enhancing principals' dispositions are highlighted by

Leithwood and associates (2004). In contrast to principals who matriculated from mediocre

principal preparation programs, "graduates of the exemplary programs who became principals

were significantly more likely than the comparison principals to hold positive beliefs about the

principalship and feel more strongly committed to it" (p. 10). As well, "they were also more

likely to believe that being a change-agent was part of their role" (p. 13), and "new principals in

the exemplary programs reported more positive beliefs, and fewer negative ones, ...(and) on

average, reported working longer hours as well as holding a stronger commitment to remaining

in the principalship" (p. 13).

Thus, realizing that principals' dispositions underlie and guide their actions, and also acknowledging their unique ability to shape principals' dispositions, school districts can provide development opportunities that target the acquisition of desirable dispositions among their novice principals. Adopting this emphasis over skills or knowledge acquisition may better facilitate desired student outcomes.

Districts Now Emphasizing Learning That Builds Dispositional Capacities

One may wonder what the research is telling us concerning principal dispositions. Should school districts quickly provide the foundational skills needed so that principals do not need to rely so heavily upon their dispositions? Or because principals' dispositions underlie their actions, should school districts primarily focus on building novice principal dispositions over skill acquisition?

Nicholson and colleagues (2005) chronicle that the history of professional development for principals begins in the 1980's, and focused on building their skills, but these attempts were ineffective because the development offered was short term, topical, focused more on awareness than skill-building, and did not include time for reflective practice. These broader attempts at principal development eventually narrowed to focus on more strategic skill development (Peterson & Kelley, 2002). While the primary focus of many professional development efforts is not to build administrators' capacity, researchers note that the development that is most effective at building principals' skills are also the professional development activities that yield positive dispositional outcomes.

For example, Peterson and Kelley (2002) note that as principals receive on-the-job experience, career-stage development, coaching all within a culture of shared membership, then the results are intertwined in positive skill-based and dispositional outcomes, including "habits of mind and professional network connections that should foster continued growth and development throughout the principals' career" (p. 341). Similarly, Wahlstrom and colleagues (2010) note that when a strong organizational culture supporting teamwork during professional development, school districts are able to build principals' sense of efficacy. Farver and Holt (2015) likewise link professional development that effectively builds skills as that which also develops desired dispositional capacities at the same time; they note how job-embedded and reflection-promoting coaching helps administrators gain increased confidence and skills to interact with staff.

Research appears to acknowledge that effective professional development contains certain components that build skills *and* desirable dispositions, although these researchers do not state findings in these terms. Instead, they do not acknowledge that a principal's capacity

includes the domains of knowledge, skills, and dispositions, and without this schema, do not invite the possibility that an appeal to multiple domains during professional development can better reinforce capacity building efforts. Even though their findings would suggest that professional development is effective because it not only builds principals' skill-based capacities, but also their dispositional capacities, researchers are yet to state this claim explicitly. Perhaps this explicit link has not been made because the definition of dispositions currently lack consensus (Melton et al., 2010), and also because many dispositional traits are difficult to identify (Turnbull, Anderson, Riley, MacFarlane, & Aladjem, 2016). Or perhaps the link between capacity domains that reinforce each other during capacity building has not been explored fully because the capacity development of principals is a relatively new field of study.

Regardless, school districts should be interested to note that those professional development activities that are the most effective at building skills are the same which build principals' sense of efficacy, confidence, habits of mind, and other desired dispositions.

References

- Alsbury, T. L., & Hackmann, D. G. (2006). Learning from experience: Initial findings of a mentoring/induction program for novice principals and superintendents. *Planning and Changing*, 37(3), 169-189. Retrieved from:

 http://education.illinoisstate.edu/planning/articles/vol37.php
- Anderson, L. M., & Turnbull, B. J. (2016). Evaluating and supporting principals. Building a stronger principalship (Vol. 4). Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/Building-a-Stronger-Principalship-Vol-4-Evaluating-and-Supporting-Principals.pdf
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122-147. Retrieved from: http://dx.doi.org/10.1037/0003-066X.37.2.122
- Behar-Horenstein, L. S. (1995). Promoting effective school leadership: A change-oriented model for the preparation of principals. *Peabody Journal of Education*, 70(3), 18-40. Retrieved from: https://www-jstor-org.erl.lib.byu.edu/stable/pdf/1492895.pdf
- Betielle, T., Kalogrides, D., Loeb, S. (2009). Effective schools. Managing the recruitment, development, and retention of high-quality teachers: working paper 37. Washington, D.C.: The Urban Institute. Retrieved from: https://files.eric.ed.gov/fulltext/ED509688.pdf
- Bizzell, B. E. (2011). *Professional development of school principals in the rural Appalachian* region of Virginia (PhD Dissertation). Virginia Polytechnic Institute and State University, Blacksburg, Virginia. Retrieved from: https://vtechworks.lib.vt.edu/handle/10919/26464

- Bossert, S. T., Dwyer, D. C., Rowan, B., & Lee, G. V. (1982). The instructional management role of the principal. *Educational Administration Quarterly*, 18(3), 34-64. Retrieved from:
 - http://journals.sagepub.com.erl.lib.byu.edu/doi/pdf/10.1177/0013161X82018003004
- Brown, K. M., Anfara, V. A., Hartman, K. J., Mahar, R. J., & Mills, R. (2002). Professional development of middle level principals: Pushing the reform forward. *Leadership and Policy in Schools, 1*(2), 107-143. Retrieved from:

 https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED457595
- Browne-Ferrigno, T., & Muth, R. (2006). Leadership mentoring and situational learning:

 Catalysts for principalship readiness and lifelong mentoring. *Mentoring & Tutoring*,

 14(3), 275-295. Retrieved from:

 http://www.informaworld.com.erl.lib.byu.edu/openurl?genre=article&id=doi:10.1080/13
- Bryman, A. (1996). Leadership in organizations. *Handbook of Organization Studies*. Thousand Oaks, CA: SAGE Publications.

611260600635530

- Burch, P. (2007). Educational policy and practice from the perspective of institutional theory: Crafting a wider lens. *Educational Researcher*, *36*(2), 84-95. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.3102/0013189X07299792
- Bynum, Y. P. (2015). The power of informal mentoring. *Education*, *136*(1), 69-73. Retrieved from:
 - http://web.a.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=9bd20d49-7b90-4166-825f-07aac3a6918a%40sessionmgr4009

- Chirichello, M. (1999). Building capacity for change: Transformational leadership for school principals. Retrieved from:

 https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=ED432037
- Copland, M. A. (2003). Leadership of inquiry: Building and sustaining capacity for school improvement. *Educational Evaluation and Policy Analysis*, *25*(4), 375-395. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.3102/01623737025004375
- Crow, G. M. (2006) Complexity and the beginning principal in the United States: Perspectives on socialization. *Journal of Educational Administration*, *44*(4), 310-325. Retrieved from: https://doi.org/10.1108/09578230610674930
- Cuban, L. (1988). The managerial imperative and the practice of leadership in schools. New York, NY: SUNY Series in Educational Leadership.
- Daresh, J. (2001). Building leaders for the future: The Sorcorro Independent School District

 Assistant Principals Academy. Paper presented at the Annual Meeting of the National

 Council of Professors of Educational Administration, Houston, TX. Retrieved from:

 https://files.eric.ed.gov/fulltext/ED470421.pdf
- Daresh, J. (2004). Mentoring school leaders: Professional promise or predictable problems? *Educational Administration Quarterly, 40*(4), 495-517. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1177/0013161X04267114
- Darling-Hammond, L., LaPointe, M., & Meyerson, D. Orr, M. T., & Cohen, C. (2007).
 Preparing school leaders for a changing world: Case studies of exemplary programs.
 Stanford, CA: Stanford Educational Leadership Institute. Retrieved from:
 http://www.wallacefoundation.org/knowledge-center/Documents/Preparing-School-Leaders.pdf

- Davis, S., Darling-Hammond, L., LaPointe, M., & Meyerson, D. (2005). School leadership study: Developing successful principals. Stanford, CA: Stanford Educational Leadership Institute. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/Developing-Successful-Principals.pdf
- DiPaola, M., & Tschannen-Moran, M. (2003). The principalship at a crossroads: A study of the conditions and concerns of principals. *NASSP Bulletin*, 87(634), 43-65. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1177/019263650308763404
- Ehrich, L., Hansford, B., & Tennent, L. (2004). Formal mentoring programs in education and other professions: A review of the literature. *Educational Administration Quarterly, 40*(4), 518-540. Retrieved from:

 http://dx.doi.org.erl.lib.byu.edu/10.1177/0013161X04267118
- Emelo, R. (2011). Group mentoring best practices. *Industrial and Commercial Training, 43*(4), 221-227. Retrieved from:

 https://www.riversoftware.com/resources/Group Mentoring Part2 IACT Jun11.pdf
- Farver, A. R., & Holt, C. R. (2015). Value of coaching in building leadership capacity of principals in urban schools. *Education Leadership Review of Doctoral Research*, 2(2), 67-76.
- Fazio, R. H. (1986). How do attitudes guide behavior? In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 204-243). New York, NY: Guilford Press.
- Fink, D. (2011). Pipelines, pools and reservoirs: Building leadership capacity for sustained improvement. *Journal of Educational Administration*, 49(6), 670-684. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1108/09578231111174811

- Fullan, M. (2006). *Change theory: A force for school improvement*. Jolimont, Victoria: Centre for Strategic Education.
- Fullan, M. (2010). *All systems go: The change imperative for whole system reform.* Thousand Oaks, CA: SAGE Publications.
- Gerstner, L., Ackerman, A., Barnes, R., Beattie, R., Bush, B., Chenault, K., ... Riley, R. (2006).

 *Teaching at risk: Progress & potholes. Washington, D.C.: The Teaching Commission.

 Retrieved from: http://www.nctq.org/nctq/images/ttc_teachingatrisk.pdf.
- Grant, A. M. (2014). The efficacy of executive coaching in times of organizational change. *Journal of Change Management*, 14(2), 258-280.
- Grissom, J. A., & Harrington, J. R. (2010). Investing in administrator efficacy: An examination of professional development as a tool for enhancing principal effectiveness. *American Journal of Education*, 116(4), 583-612. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1086/653631
- Grogan, C., & Crow, G. (2004). Mentoring in the context of educational leadership preparation and development—old wine in new bottles? Introduction to a special issue. *Educational Administration Quarterly*, 40(4), 463-467. Retrieved from:

 http://journals.sagepub.com.erl.lib.byu.edu/doi/pdf/10.1177/0013161X04267107
- Hallinger, P. (2003). Leading educational change: Reflections on the practice of instructional and transformational leadership. *Cambridge Journal of Education*, *33*(3), 329-351.
- Hallinger, P., & Heck, R. H. (1996). Reassessing the principal's role in school effectiveness. *Educational Administration Quarterly*, 32(1), 5-44.
- Hallinger, P., & Murphy, J. (1991). Developing leaders for tomorrow's schools. *Phi Delta Kapan*, 72(7), 514-520.

- Hanna, D. P. (2001). Tracing your organizational roots. Leadership for the Ages: Delivering Today's Results, Building Tomorrow's Legacy. Provo, UT: Executive Excellence Publishing.
- Harris, A. (2011). System improvement through collective capacity building. *Journal of Educational Administration*, 49(6), 624-636. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1108/09578231111174785
- Hatch, T. (2002). When improvement programs collide. *Phi Delta Kappan*, 83(8), p. 626-629.

 Retrieved from: www.lib.byu.edu/cgi-bin/remoteauth.pl?url=http://search.ebscohost.com.erl.lib.byu.edu/login.aspx?direct=true &db=eric&AN=EJ644880&site=ehost-live&scope=site
- Hill, L. A. (2003). Becoming a manager: How new managers master the challenges of leadership. Boston, MA: Harvard Business School Press.
- Hitt, D. H., Tucker, P. D., & Young, M.D. (2012). The professional pipeline for educational leadership: A white paper developed to inform the work of the national policy board for educational administration. Charlottesville, VA: University Council for Education Administration. Retrieved from: http://www.ucea.org/wp-content/uploads/2014/08/PipelineWhitePaper_web.pdf
- Horng, E. L., Klasik, D., & Loeb, S. (2010). Principal's time use and school effectiveness. *American Journal of Education*, *116*(4), 491-523. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1086/653625

- Horng, E. L., & Loeb, S. (2010). New thinking about instructional leadership. *Phi Delta Kappan*, 92(3), 66-69. Retrieved from:

 http://web.b.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=3&sid=f7220
 933-31f9-4efc-a040-5f6553feac0e%40sessionmgr120
- Johnston, W. R., Kaufman, J. H., & Thompson, L. E. (2016). Support for instructional leadership. Supervision, mentoring, and professional development for U.S. school leaders: Findings from the American school leader panel. Washington D.C.: RAND Corporation. Retrieved from: https://www.rand.org/pubs/research_reports/RR1580.html
- Kee, K., Anderson, K., Dearing, V., Harris, E., & Shuster, F. (2010). *Results coaching: The new essential for school leaders*. Thousand Oaks, CA: Corwin.
- King, M. B., & Newmann, F. M. (2001). Building school capacity through professional development: Conceptual and empirical considerations, *International Journal of Educational Management*, (15)2, 86-94. Retrieved from: https://doi.org/10.1108/09513540110383818
- Lambert, L. (1998). Building leadership capacity in schools. San Francisco, CA: Jossey-Bass.
- Leithwood, K., Seashore Louis, K., Anderson, S., & Wahlstrom, K. (2004). *How leadership influences student learning: Review of research*. Minneapolis, MN: Center for Applied Research and Educational Improvement & The Wallace Foundation. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Pages/How-Leadership-Influences-Student-Learning.aspx
- Levine, A. (2005). *Educating school leaders*. Princeton, NJ: The Education Schools Project.

 Retrieved from http://www.edschools.org/pdf/Final313.pdf.

- Long, J. (1997). The dark side of mentoring. *Australian Educational Research*, 24(2), 115-123. Retrieved from: https://link.springer.com/article/10.1007%2FBF03219650
- Louis, K. S., Leithwood, K., Wahlstrom, K. L., & Anderson, S. E. (2010). Learning from leadership: Investigating the links to improved student learning. Minneapolis, MN:

 University of Minnesota. Retrieved from: http://www.wallacefoundation.org/knowledge-center/school-leadership/key-research/Pages/ Investigating-the-Links-to-Improved-Student-Learning.aspx
- Lunenburg, F. C. (2010). The management function of principals. *National Forum of Educational Administration and Supervision*, 27(4), 1-10. Retrieved from: http://www.nationalforum.com/Electronic%20Journal%20Volumes/Lunenburg,%20Fred %20C.%20The%20Management%20Function%20of%20Principals%20V27,%20N4%20 2010.pdf
- Lunenburg, F. C., & Ornstein, A. C. (2004). *Development of Administrative Theory Educational Administration: Concepts and Practices* (4th ed.). Belmont, CA: Edith Beard Brady.
- Melton, T., Mallory, B. J., & Green, J. (2010). Identifying and assessing dispositions of educational leadership candidates. *Educational Leadership and Administration: Teaching* and Program Development, 22, 46-60. Retrieved from: https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ965161
- Mendels, P., & Mitgang, L. (2013). Creating strong principals. *Educational Leadership*, 70(7), 22-29. Retrieved from:
 - http://web.a.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=17&sid=5053 99e8-bdbb-4f55-b8e1-6a3973f7ebf9%40sessionmgr4007

- Méndez-Morse, S. (2004). Constructing mentors: Latina educational leaders' role models and mentors. *Educational Administration Quarterly*, 40(4), 561-590. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1177/0013161X04267112
- Mertz, N. T. (2004). What's a mentor, anyway? *Educational Administration Quarterly, 40*(4), 541-560. Retrieved from: http://journals.sagepub.com.erl.lib.byu.edu/doi/pdf/10.1177/0013161X04267110
- Miles, M., Huberman, A., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage Publications
- Mitgang, L. (2012). The making of the principal: Five lessons in leadership training. New York,

 NY: The Wallace Foundation. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Documents/The-Making-of-thePrincipal-Five-Lessons-in-Leadership-Training.pdf
- Mitgang, L., Gill, J., & Cummins, H. J. (2013). *Districts matter: Cultivating the principals urban schools need.* New York, NY: The Wallace Foundation. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Documents/Districts-Matter-Cultivating-the-Principals-Urban-Schools-Need.pdf
- Mullen, C. (2009). Re-imaging the human dimensions of mentoring: A framework for research administration and the academy. *The Journal of Research Administration*, 40(1), 10-31. Retrieved from: https://eric.ed.gov/?id=EJ886783
- Nicholson, B., Harris-John, M., & Schimmel, C. J. (2005). *Professional development for principals in the accountability era*. Charleston, WV: Appalachia Educational Laboratory at Edvantia. Retrieved from: http://www.sfu.ca/~dlaitsch/courses/962/prinprod.pdf

- Odden, A., & Clune, W. (1995). Improving educational productivity and school finance.

 *Educational Researcher, 24(9), 6-22. Retrieved from http://www.jstor.org/stable/1177265
- Orr, M. T., King, C., & LaPointe, M. (2010). Districts developing leaders: Lessons on consumer actions and program approaches from eight urban districts. Boston, MA: Education Development Center, Inc. Retrieved from:

 http://www.edc.org.erl.lib.byu.edu/sites/edc.org/files/pdfs/EDC-FullReport-FINAL.pdf
- Pashiardis, P., & Braukmann, S. (2009). Professional development needs of school principals. *Commonwealth Education Partnerships 2009/10* (pp. 120-124). Retrieved from: http://www.cedol.org/wp-content/uploads/2012/02/120-124-2009.pdf
- Peel, H. A., Wallace, C., Buckner, K. G., Wrenn, S. L., & Evans, R. (1998). Improving leadership preparation programs through a school, university, and professional organization partnership. *NASSP Bulletin*, 82(602), 26-34.
- Peterson, K. D., & Kelley, C. J. (2002). Principal inservice programs: A portrait of diversity and promise. In M. S. Tucker & J. B. Codding (Eds.), *The principal challenge* (pp. 313-346). San Francisco: Jossey-Bass, 313-346.
- Preis, S., Grogan, M., Sherman, W. H., & Beaty, D. M. (2007). What the research and literature say about the delivery of educational leadership preparation programs in the United States. *Journal of Research on Leadership Education*, 2(2) 1-36. Retrieved from: https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ958829
- Ragins, B. R., & Cotton, J. L. (1999). Mentor functions and outcomes: A comparison of men and women in formal and informal mentoring relationships. *Journal of Applied Psychology*, 84(4), 529-550.

- Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education* (2nd ed.). New York, NY: Macmillan. Retrieved from: https://www.researchgate.net/publication/239666513
- Rike, C. J., & Sharp, L. K. (2008). Assessing preservice teachers' dispositions: A critical dimension of professional preparation. *Childhood Education*, (84)3, 150-153. Retrieved from:

 http://link.galegroup.com/apps/doc/A176049268/AONE?u=byuprovo&sid=AONE&xid=0e647e4f
- Scott, W. R., & Davis, G. F. (2007). Organizations and organizing: Rational, natural, and open system perspectives. Upper Saddle River, NJ: Pearson.
- Searby, L. (2008). A mentoring mindset: Preparing future principals to be effective protégés. *International Journal of Educational Leadership Preparation*, *3*(1). Retrieved from: https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ1067137
- Stone, G. A., & Patterson, K. (August 2005). *The history of leadership focus*. Paper presented at the Servant Leadership Research Roundtable, Virginia Beach, VA. Retrieved from:

 http://www.regent.edu/acad/sls/publications/conference_proceedings/servant_leadership_roundtable/20 05/pdf/stone history.pdf
- Sun, C. (2011). School leadership improving state systems for leader development. *NASBE Discussion Guide*. Arlington, VA: National Association of State Boards of Education. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Documents/NASBE-Discussion-Guide-School-Leadership-Improving-State-Systems-for-Leader-Development.pdf

- Turnbull, B., Anderson, L., Riley, D., MacFarlane, J., Aladjem, D. (2016). *The principal pipeline initiative in action. building a stronger principalship* (Vol. 5). Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/Building-a-Stronger-Principalship-Vol-5-The-Principal-Pipeline-Initiative-in-Action.aspx
- Turnbull, B. J., Riley, D. L., & MacFarlane, J. R. (2013). *Cultivating talent through a principal pipeline: Building a stronger principalship* (Vol 2). Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/Building-a-Stronger-Principalship-Vol-2-Cultivating-Talent-Through-a-Principal-Pipeline.aspx
- Wahlstrom, K., Louis, K., Leithwood, K., Anderson, S. (2010). Learning from leadership:

 Investigating the links to improved student learning. The informed educator series.

 Alexandria, VA: Educational Research Service. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Documents/Investigating-the-Links-to-Improved-Student-Learning.pdf.
- Waters, T., Marzano, R., & McNulty, B. (2003). Balanced leadership: What 30 years of research tells us about the effect of leadership on student achievement. A working paper. Aurora, CO: Mid-Continent Regional Educational Lab. Retrieved from: http://www.mcrel.org/PDF/
 LeadershipOrganizationDevelopment/5031RR BalancedLeadership.pdf.

Wong, P. -M. (2004). The professional development of school principals: Insights from evaluating a programme in Hong Kong. *School Leadership and Management, 24*(2), 139-162. Retrieved from:

http://taylorandfrancis.metapress.com.erl.lib.byu.edu/link.asp?target=contribution&id=5 A46DKPLU2JREAAR

APPENDIX B

Extended Methods Section

Setting

Within a large economically and ethnically diverse school district in the mid-western

United States stands Mason School District. Its novice administrators receive three years of
intensive transitional mentoring supports. These include monthly group mentoring meetings held
in Mason School District office buildings, assigned individual formal mentoring during their first
three years in their new role or assignment, as well as any other resources offered to other nonnovice administrators. Thus, the novice administrators in this district can draw from various
capacity sources in addressing professional problems of practice.

Participants

The target population for my study is all the administrators employed by a school district who have worked as a building-level administrator and have been participants in a coordinated, district-led, professional development under a "pipeline" model of inservice training through an "academy" or other cohort structure. The accessible population for this study is those administrators who have completed Mason School District's Leadership pipeline since its enactment in the 2012-2013 school year. I note the 45 administrators who began three-year inservice professional development training as a part of an academy cohort during 2013-2014 or 2014-2015. The reason for selecting these two cohorts is because at present, these are the only two cohorts that had the potential to complete this pipeline development. There are 45 administrators who enrolled in these two cohorts, however, 8 did not complete the program, and were therefore excluded. Also, I excluded myself because of my role as researcher, author, and interviewer.

Purposive sampling selected 25 of the remaining 36 administrators. These administrators were stratified into subgroups according to primary (position), secondary (Title I status), and tertiary (school level and gender) purposes. Of the 24-possible created sub-groups of administrators, 17 were represented in the accessible population. The intent was to have all 17 subgroups of administrators represented in the research study. Participants were selected as follows: Each subgroup containing only one administrator were automatically be selected to participate in the study (7 total). In addition, all administrators in Title I schools were automatically selected to participate (7 additional); the rationale for their automatic selection was to adequately explore possible relationships between a school's Title I status and the types of problems of practice encountered and the administrator capacities required to address them. Finally, administrators in the remaining subgroups consisting of non-Title schools with more than one possible participant were randomly selected to achieve as much balance as possible among secondary vs. elementary participants and also male vs. female participants. These 25 participants represented 70% of the entire accessible population (all building level school principals who had recently matriculated from intensive induction training). All subgroups of administrators were represented within these twenty-five participants in a way that provides multiple perspectives within each subgroup.

This population is of high interest because the goal of this study is to explore all the different sources of capacity that administrators identify as helping them successfully address professional problems of practice faced in schools. Because the types of inservice supports offered by districts vary, it is advantageous that those being surveyed to have received one of the more intensive inservice professional development models, so that in their responses and reflections, they were able to draw upon all possible sources. Without a target population having

received such a pathway-oriented and integrated development curriculum, the possible responses from surveyed administrators would have not represented the spectrum of inservice resources possibly available to administrators nation-wide. Current literature suggests that one of the most intensive types of administrator inservice support is a career-staged pipeline model (targeted, individualized, ongoing).

To contrast any possible limitations of selecting participants from one school district, the benefits of selecting participants based on their unique status as pipeline development recipients are highlighted. These participants are part of a large district that has varied needs throughout its many schools. That the researcher is a fellow non-evaluative administrator will likely yield more open answers rather than hesitant, guarded responses; these responses are more likely to be open and highly reflective because the researcher fully understands the interviewees' workplace culture, and also because the researcher will have communicated that their responses will remain both confidential and non-evaluative. And because the researcher was a participant in the pipeline development model, the methodology of interviewing as the researcher has the added benefit of what James-Ward (2011) describes as "the advantage of engagement and active participation in the study environment." Thus, the benefits of delimitations should outweigh any possible limitations in this study, particularly as one considers the study's research design.

Framework

The framework from which I consider generally how administrators' capacities are shaped and manifested in their ability to solve problems in the workplace is grounded in Industrial and Organizational (I&O) Psychology—a lens that gives adequate consideration to factors affecting administrator behavior. I &O Psychologists like Kanfer (1990) view this field as an ideal framework to consider how and why workers (such as administrators) act the way they

do in the workplace (schools) as this field considers organizational influences in tandem with "environmental, social, emotional, individual differences, and cognitive determinants in purposeful action" (p. 90). In exploring how administrators address problems of practice in schools, it is essential to note that administrators are members of a larger district operating under its organizational culture and set of goals, driving a shared set of assumptions that define appropriate behavior and responses to various problems of practice. The domains of principal capacity (knowledge, skills and dispositions) operate in a rich, dynamic, and influential workplace setting—a setting whose influences may not be recognized or appreciated without adherence to traditional methods for I & O studies, namely interviews.

Approach

Asked by an administrator familiar with the professional culture and practices of Mason School District, participants were invited to respond to open-ended questions describing the problems they face as a school leader, how such problems are successfully addressed, and the capacities needed by administrators to facilitate the problems' desired resolutions. In context of their reflection and in the same interview, the administrators were invited to list their strong capacities that have enabled them to address the problems they have faced as school leaders. Finally, administrators were invited to reflect and identify all the sources of their strong capacities, both personal and professional, that have helped develop the strong capacities needed in successfully addressing their problems of practice faced.

What served the researcher well during these processes was maintaining an open mind as to possible findings, a willingness to explore emerging themes, proficiency in typing and in NVivo software, a firm commitment to fidelity of data collection and analysis, and an overall interest in generating or reaffirming knowledge. This confluence of factors enabled the

researcher to collect large amounts of data, organize it in a systematic way through numerous lenses, identify multiple themes, and present these themes in an organized fashion.

While it was feasible to ask administrators about administrative demands that are ongoing, recently resolved, were most important, resolved well, or by other distinguishing factors, they were asked about those that the administrator had primary oversight in resolving, and also that they define as being significant. Significance was defined as general types of administrative issues that are ongoing, or in terms of importance regardless of their frequency. The intent of asking this question in terms of administrators' role and in terms of significance in an open-ended manner was to not only prevent upward bias, but to get the perception of the demands administrators' face, and also to set the stage in asking what capacities are needed to address the demands administrators face.

To engender a feeling of openness between myself and each participant, pronouns intentionally included "we," also identifying myself in questions as a fellow administrator who shared insights and empathy for the demands of the participant. Also, instead of using the term "problem of practice," administrators will be asked about their demands, or how they address problems or issues. While speaking about the same thing, I desired for the interview language to be relatable, while still conveying their urgency, that the problems are job-related, can come from a variety of sources, and exact administrator time and effort. It was prefaced that the administrator did not need to share sensitive or overly specific information about problems of practice. It was in fact be suggested to them that in articulating problems of practice that related to specific individuals, the persons be referred to as a teacher or as a student to not violate that person's workplace or Family Educational Rights and Privacy Act (FERPA) rights of confidentiality. It was also articulated to the administrator that no responses will be shared

outside in this interview in a way that traces information back to their school or themselves. As administrators identified *themselves* the problems of practice they face, their open-ended responses were more indicative of the realities they face—more so than framing their possibilities for them in a way that will not authentically indicate the extent or prevalence of their many problems. While this approach narrowed the conversation to include a problem of practice from each identifies domain, the researcher did not identify the problems, capacities, or sources for the administrative participants.

Asked in the modified, episodic manner, the study allowed for an analysis of the realities of administration, determining the variance of types of problems faced according to type of school, type of administrative role held, or demographic of students, to name a few predictive variables. What is more, if were to bring up an administrative task the surveyed administrator does not do well, then he or she cannot speak with authenticity about how to resolve it well, muddying the data of having administrators speak to what they can do well. By asking administrators to identify problems they have resolved well, they are indicating an area of their own professional capacities. As the intent of the survey is to trace sources of capacity, self-identification in this case becomes an important research tool. If asked in a way that frames the problems or capacities for them, this study would suffer from upward bias, have lacked authenticity needed to learn what problems administrators are facing and how they address them effectively.

Research Design

While a resource constraint exists in not being able to directly observe administrators in solving problems of practice as source of data, in-person interviews provide rich data that shed light on participant perspective without needing to directly observe their experiences firsthand

(Patton, 2002), with the added benefit of providing "immediate clarification of questions and follow up responses thereby improving the quality of data collected" (Patton, 2002, p. 31). In considering the task of exploring this study's research questions, consider also the complexities of school administration coupled with a static research tool. Principal responsibilities, capacities, and sources of these capacities should likewise be studied in a dynamic manner that can understand context, clarify understanding, and not omit any point of data, even those non-verbal cues given by administrators during interviews. The depth of study allowed in qualitative research inherently matches the depth of phenomenon I plan to explore: principal capacity.

The intent of questions 1-7 was to gather information that will address Research Question 1: "What types of capacities do administrators draw from in solving various problems of practice?" These questions also set the stage in answering the next questions. Questions 8-12 are intended to provide information that can address Research Question 2: "What factors do administrators claim have been instrumental in developing their capacities needed to solve these problems of practice?"

In contrast to other studies that seek to measure the effect of various capacity sources on administrator ability, this exploratory study allowed administrators to reflect on all sources of capacities, without providing an indication to the participants as to what these sources might be. Thus, capacity sources were identified solely by the administrators themselves, and consequently could be considered in context of all other offered responses. Such open-ended questioning by the researcher contrasts other data collection methods so prevalent in studying administrator capacity, such as inviting participants to reflect on pre-identified capacity sources through surveys, or in allowing data collection to emphasize to the participants their relationship to a capacity source. Turnbull, Riley, and MacFarlane (2013) describe the result of employing such

research methods in measuring principals' perceived capacity sources: their "response(s) to these questions presumably reflect some upward bias" (p. 14). What is more, evaluations of principal development are often not rigorous enough to separate participating satisfaction with changes in administrators' capacity (Guskey, 2000). And while this study's more "emic" approach invited the possibility of participants not identifying all the problems they face, the capacities they possess, or the potential sources of these capacities, its open-ended nature prevented such bias and presumed satisfaction levels. Omissions of not mentioning pre-identified capacity sources in other studies became telling in themselves.

As the study explored any possible for self-attributed causal chains, it included modified episodic interviews, following the guidelines for causal coding outlined by Miles, Huberman, and Saldaña (2014). In early stages of causal modeling for sources of principal capacity, the researcher made simplified assumptions about what impacts administrator capacity for the purpose of generating a starting point, being careful to not pre-determine my causal network. The linear chain of assumptions is implied in the interview questions (first asking administrators about demands they face, then reflecting on the capacities needed to resolve each demand well, and finally inviting the interviewee to identify sources of capacity).

To establish correct understanding of interviewee's responses, the researcher transcribed and coded interviews shortly after their completion, sharing understanding with three administrators interviewed to verify understanding of their responses. Also, three transcriptions to of interviews were sent to fellow Doctoral cohort members with both administrative and coding experience, asking them to code the interviews independent from my work to see if the same nodes emerged in their coding. This process reaffirmed the researcher's coding and allowed for to move forward interviewing and coding with assurance of objectivity and

consistency. Follow-up conversations with interviewees indicated that the researcher had a clear understanding of initial administrators' responses, allowing the study to move forward with further coding and analysis with confidence. This process took place with Pat, Jen, and Frankie. Each novice principal reaffirmed the coding that had taken place correctly, that the level of certainty or intensity with which their responses were offered were accurate, and often led to longer conversations. Pat, for example, seemed all too eager to elaborate that the same issues he expressed earlier in the year are even more at play now, and emotions in the follow up conversation seemed to increase in intensity.

During the follow up conversation with Jen, she indicated that she didn't remember what she had identified as issues or her own responses. When asked clarifying questions about her responses, she offered insightful comments regarding issue kind (positive or negative), as well as a possible overlay of skills and dispositions. When asked if the demands were coded appropriately, Jen indicated that the problems she mentioned shouldn't be labeled as negative, but are "just part of the job." Her statement reaffirmed the decision to code issues as either "negative" or "non-negative." What is more, she struggled to choose between identifying "being a good listener" as a skill or as a disposition, finally asserting that it could be both. Her comment reaffirmed the existence of possible research theme left to a potential future study: an overlay between certain capacities as being dispositional and skill-based.

Data sets of interviews only included members of the sample population. Decision rules while handling data included 50% thresholds for coding themes and patterns. This consistent threshold for classifications, nodes, sub-nodes and themes clarified immediate analysis in coding and also provided confidence in reaching valid conclusions. Priorities were made to ensure the study's trustworthiness in its four domains as promulgated by Guba (Shenton, 2004). This study

gained credibility as specific procedures were used: highlighting the researcher's familiarity with the culture of interviewees as a fellow administrator, selecting participants through random sample (which in this case would be randomized within my purpose of sample), allowing participants to refuse to take part in the study, encouraging participants to be frank, asking rephrased questions to elicit complete responses, the researcher having frequent debrief sessions with his supervisor to test interpretations and developing ideas, inviting peer scrutiny of the research, and by highlighting the researcher's competency in the study's write up.

Transferability is not claimed in these findings. Even though schools nationwide serve the same function and experience a degree of overlap between administrative responsibilities for schools in similar contexts, each school district operates with different under different systems and culture. To achieve confirmability, this study ensured that interview responses are derived from the experiences of interviewees, and not simply projections of the researcher onto these interviewed administrators. To gain credibility, responses of participants were verified to further obviate investigator bias. NVivo software was used to code interview responses and run analyses to attribute causal coding. Fidelity to the process was maintained by adhering to Miles, Huberman, and Saldana's (2014) guidelines for attribution coding.

After each interview was coded, the researcher reconsidered code attributions so that the responses more accurately aligned with the categories as a whole. The researcher looked for patterns among participant responses based on demographic information, including: interval factors (age, years of teaching experience, years of administrative experience, length of tenure at the school, etc.), nominal factors (ethnicity, gender, characteristics of school during teaching experience, characteristics of school during administrative experience, where they received their administrative certification, demographic information about the school the administrator

currently leads, etc.), and ratio factors (years of post-secondary schooling completed, percentage of students on free-reduced lunch at school of administrative assignment).

A review of literature reaffirms the methodology employed in this study in asking for administrators to reflect on problems of practice successfully addressed. While Zeigarnik and other Social Psychologists argue that administrators remember (and better reflect) on their current, unsolved problems of practice (Zeigarnik, 1967), Carey (2014) summarizes Wallas and colleagues' ontological advocacy of surveying problem-solvers after the full resolution of a problem. The wide-ranging and timeless "Stages of Control" and subsequent studies that explore the internal mechanisms through which solutions emerge for a problem-solver. There is a Preparation Stage (which, relevant to this research, includes obtaining capacity through various sources and then grappling with a presented issue). The second, Incubation Stage is an internal, often subconscious mental process where the mind organizes existing prior knowledge and the new information, seeking also for additional stimuli to recall past learning and to make needed connections to derive an adequate solution. By appearances, a principal interviewed during the Incubation Phase of problem-solving may seem incapable of addressing the problem, even though he or she may be (Carey, 2014).

If a principal is grappling with an issue during this phase and if interviewed in the same timeframe, the researcher would not see his or her capacity come to full fruition. The researcher would incorrectly assume that there was either an inadequate Preparation Stage or that the subsequent resolving stages (that is illumination and verification) will never take place. What is more, consider the likelihood of a research study succeeding when designed to interview administrators during their unresolved problems of practice. With the urgency of time these problems exact from administrators, few would feel compelled to divert their efforts away from

solving such problems for the sake of research. Thus, in interviewing administrators after their problems of practice have been resolved, it is true that my participants may reflect on the memory of an experience rather than on the experience itself, it is asserted that interviewing participants after the resolution of their problems of practice is the most valid option considering the intent of this study is to trace administrator capacity needed to effectively address a problem, not to recall the details of a resolved problem. The latter case would call for interviewing administrators in the moment of resolution, but since this study researches the former case (administrators' capacity), it is more appropriate to interview administrators afterwards.

Considerations of Possible Data Sources—Exclusion of Principal Observations.

In addition to the likelihood that administrators will under report their problems of practice during the heat of these problems, and the resource constraint of not having researchers to continually shadow administrators to witness their problems of practice unfold, researchers Hallinger and Heck (1996) also offer insight which should deter observational data being used to identify principal capacity. That is, an administrator's effect is best understood as a part of a complex web of "environmental, personal and in-school relationships" (p. 6). and is difficult to parse out of these other factors during an observational study. Including data from observations would be incomplete without including the additional context that administrators can provide, which is the intent and outcome of an in-person interview anyways. In addition, capacities of administrators are difficult to trace because they are functions of both personal and professional backgrounds. Perrow offers an explanation that is true for administrators and all organization members; they "do not exist just for organizations. They track all kinds of mud from the rest of their lives into the organization" (Perrow, 1986, p. 4). It is noted how observation of outside

participants may lend itself well to other studies, doing so to gauge one's personal capacity sources in this will be incomplete at best, misleading at worst.

Previous research that has utilized observations of administrators in addressing workplace problems to make claims include *Principal's Time Use and School Effectiveness*, a study that compares principal demographic factors against their use of time (Horng, Klasik, & Loeb, 2010). This study and others using observational data do not generally make claims about sources of administrative capacity because of the limitations of observational studies in tracing capacities.

As interviews conducted with building-level administrators included questions that invite participants to speak to their experiences addressing problems of practice faced, it is made clear that participant responses were kept confidential and non-evaluative. To elicit openness in their responses, it is asserted that the researcher would not contact their supervisors as a part of this study. If supervisor feedback was solicited in this study, it is not likely that building-level administrators would have been so willing to participate and open in their responses, not having to worry that their answers would be compared against or reported to their superiors.

Furthermore, there is a body of research that implies that principal supervisors, one step removed from problems of practice that principals address in schools, would be inaccurate in their perceptions of principal capacity and its sources.

Even though supervisors formally evaluate these administrators, there is research that implies, ironically, that these supervisors may not be well-positioned to provide accurate perceptions of principal capacity and should not be relied upon to make claims relative to principal capacity. Principal supervisors often have inadequate training and tenure to do their job effectively. Speaking of principal supervisors, Saltzman (2016) observes how "few come to the role with specific training in how to do the job effectively" (p. 6) because "few had enough time

to grow in the job" (p. 7) with the average tenure or the position being just three years in urban districts. Furthermore, principal supervisors are not offered training that provides them with a deep understanding of appropriate leadership competencies or the use evaluation systems that lack clear performance expectations (Porter et al., 2008). Worse still, principal supervisors are often stretched too thin with other responsibilities to be effective supervisors; typically, principal supervisors oversee an average of twenty-four schools, and often more than forty, devoting their time to handling regulatory compliance, fixing building problems (Saltzman, 2016), in addition to handling district administrative and compliance issues. In short, the benefit of eliciting more open responses among building-level administrators outweigh the cost in excluding principal supervisors' perspectives in this study.

This study was done in context of public schools and studies problems of practice faced by administrators. This study involved teachers' workplace rights, students' rights guaranteed under FERPA and IDEA. Furthermore, administrators are considered as persons holding unique positions of trust. This confluence of factors make the inclusion of feedback from participants in the problems of practice infeasible as an administrator cannot disclose identifiable student, parent, or teacher information without violating these rights to an extent. Consider possible problems of practice that administrators may identify when surveyed: assisting a suicidal student, addressing a health-related emergency, motivating a student with failing grades, addressing a student's negative behavior. While an administrator can discuss these situations, they cannot disclose identifiable student information (requisite for a researcher to then interview the student) as this identification and subsequent invitation to be interviewed would be a violation of student FERPA rights. In contrast, if administrators were asked to identify only those problems of

practice that involved non-sensitive student information, the study would be self-limiting and not open the researcher to explore all sources of capacity needed to address problems of practice.

Similarly, teachers' workplace rights prevent an administrator from identifying employees based on corrective action taken against them, need for coaching intervention, or other situations which an administrator may identify as a problem of practice. In a similar fashion, observational data from school staff members are likewise not included in this study. Thus, multiple stakeholders involved in many types of problems of practice are ineligible to offer feedback on administrators' capacity not because their feedback isn't valid, but because the process of identifying those involved in such problems inherently violates their rights and compromises the administrator's position of trust. For these reasons, it is highly likely that if administrators believed these interviewed stakeholders provided input to the researcher, the administrator will likely underreport their problems of practice.

Consideration of Possible Data Sources—Inclusion of Participant Reflection.

In conducting open-ended interviews to explore self-attributed links that possibly exist among administrators' demographics, their capacities, and their perceived sources of capacity, a critic may seek to devalue the merits of using self-reflection as a research tool, arguing that participants cannot adequately introspect as to the processes that develop their own capacities or even conscious experiences. This was a heavy criticism against Structural Psychology's attempt to have participants determine factors contributing to their general state of consciousness, which criticisms mounted to a rightful abandonment of this branch of Psychology. Extending on this argument, an informed critic may also note how my framework of Industrial and Organizational Psychology, derived from Skinner's Behaviorism, utilizes research methods spawned from cognitive approaches which Skinner himself criticized in his day due to their objective nature (McLeod, 2015). Thus, asking participants to reflect on sources of their capacity to solve isolated

problems of practice is fundamentally different than the philosophy or methods employed in Structural Psychology.

In addressing the above concern, no claim is made that the factors listed by administrators were exhaustive nor comprehensive. Readers are invited to consider how previous research that has sought to trace administrator capacity has been designed in such a way so the results are laden with upward bias, suggested in Turnbull and colleague's (2013) summary of their own research (which assessed how administrators perceived benefits from their pipeline professional development). They note that because participants were asked about the effects of specific preparation experience (sources of their capacity), these "self-results in response to these questions presumably reflect some upward bias" (Turnbull et al., 2013, p. 14) because he discloses what at least some of the administrators' capacity sources are during the survey or interview. Because it was not disclosed that participants were chosen because of their matriculation from a pipeline program, and because only open-ended questions were posed, potential bias was avoided, as well as other behavioral changes that occur when a specific group of individuals know they are being studied, such as The Hawthorne Effect (Landsberger, 1958).

There have been several studies that have sought to evaluate the effectiveness of professional development on principals (Daresh 2001; Eller, 2008; Houle, 2006). In order to evaluate the development offered to administrators, these researchers solicited participant feedback not through in-person interviews or through examining changes in principal behaviors, but through questionnaires, feedback forms, or other data that do not allow for immediate clarification or follow up or the depth of study as my interview questions will offer. What is more, by soliciting the feedback of participants based on their status as recipients of that development, these studies also suffer from possible upward bias.

While the benefits of self-perception likely yield authenticity of participant responses, the difficulty for individuals to self-attribute their capacities in solving problems is acknowledged. Social experiments such as Maier's seminal "Two-Cord Experiment" (Carey, 2014) caution researchers to believe that individuals cannot accurately attribute all the sources of their capacity. In short, interview questions that rely upon participant reflection and self-perception have their limitations, but they have been considered and accounted for in my study.

Analysis

Analysis of data focused primarily on the problems of practice identified during interviews and the capacity sources drawn upon to address such problems. This study explores the problems of practice identified by administrators in Mason School District, the self-perceived capacity sources held, and compares these problems of practice against identified capacity sources, indicating the extent to which these capacity sources are aligned with problems of practice. Implications are made as to what capacity types are heavily drawn upon by administrators, such as "Learning by Doing" or Modeling. Conversely, implications can also be made as to what resource-intensive capacity-building types are being offered by school districts to administrators, such as formal professional mentoring, that are not identified as helpful in building administrators' professional capacities.

Other themes emerged during the process of interviews and were earmarked for later analysis. Examples of these researcher's personal comments include: "explore skillset of building capacity in others," "how do principals describe mentors—formal (district-assigned) or informal (school-based)?," "deficient skillset question is yielding recommendations of things the district can do," "are feelings/observations of school-based mentoring more a reflection of the principal the AP had?," "can I compare their responses against the quality of teacher they

were?," "administrators have large scope of tasks that doesn't allow for much traction in any," "differences in AP/principal bifurcated roles," "difference in perception of mentoring by AP and principal?"

An iterative process then occurred once transcriptions were complete. Coding and analysis allowed such themes to more strongly emerge or not; nodes were clarified or combined. Reorganized nodes were archived. After a first round of open coding which provided categorical and thematic nodes, later rounds of coding to explored responses according to magnitude (certainty levels or issue size), kind (positive or negative), and also emotion. These nodes were able to provide additional data to compare against categorical nodes, thematic nodes, and demographic information during queries and analysis. It would not have been feasible to simultaneously code magnitude, kind and emotion during the first round of open coding—that this process was more effectively done once categories and themes were already established.

The iterative rounds of coding (verified by member checking) and analysis produced 19 possible themes to explore in a final write-up. These themes were brought before a panel of fellow dissertation students and practitioners for their insight as to which they would explore in a final write up, using the following as considering factors: whether an exploration of the available themes could be teased out more with available data, whether the theme was exploratory or confirmatory in nature, the interest level of potential target audiences, and available research to contextualize my analysis and findings. Once identified, the themes selected became major themes and invited exhaustive query analysis and more targeted, saturated research by theme.

References

- Carey, B. (2014). *How we learn: The surprising truth about when, where, and why it happens*. New York, NY: Random House Publications
- Daresh, J. (2001). Building leaders for the future: The Sorcorro Independent School District

 Assistant Principals Academy. Paper presented at the Annual Meeting of the National

 Council of Professors of Educational Administration, Houston, TX. Retrieved from:

 https://files.eric.ed.gov/fulltext/ED470421.pdf
- Eller, J. (2008). An assessment of the recently appointed administrators' program: Lessons learned for supporting new principals. Open-Stax CNX module: m15873. National Council of Professors of Educational Administration. Retrieved from: http://cnx.org/content/m15873/1.1/
- Guskey, T. R. (2000). Evaluating professional development. Thousand Oaks, CA: Corwin Press.
- Hallinger, P., & Heck, R. H. (1996). Reassessing the principal's role in school effectiveness. *Educational Administration Quarterly*, 32(1), 5-44.
- Horng, E. L., Klasik, D., & Loeb, S. (2010). Principal's time use and school effectiveness. *American Journal of Education*, *116*(4), 491-523. Retrieved from: http://dx.doi.org.erl.lib.byu.edu/10.1086/653625
- Houle, J. (2006). Professional development for urban principals in underperforming schools. *Education and Urban Society*, 38(2), 142-159. Retrieved from: http://journals.sagepub.com/doi/pdf/10.1177/0013124505282611
- James-Ward, C. (2011). The development of an infrastructure for a model of coaching principals. *International Journal of Educational Leadership Preparation*, *6*(1), 1-12.

 Retrieved from: https://eric.ed.gov/contentdelivery/servlet/ERICServlet?accno=EJ972967

- Kanfer, R. (1990). Motivation theory in Industrial/Organizational psychology. In M. D. Dunnette and L. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 1), p. 75-170. Palo Alto, CA: Consulting Psychologists Press. Retrieved from: https://www.researchgate.net/profile/Ruth_Kanfer/publication/232564768_Motivation_T heory_and_Industrial_and_Organizational_Psychology/links/0c960535896a2b32e300000 0.pdf
- Landsberger, H. A. (1958). *Hawthorne revisited: Management and the worker, its critics, and developments in human relations in industry*. Ithica, NY: State University of New York, Ithica & School of Industrial and Labor Relations at Cornell University.
- McLeod, S. A. (2015). Cognitive psychology. Retrieved from: www.simplypsychology.org/cognitive.html
- Miles, M., Huberman, A., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. Thousand Oaks, CA: Sage Publications.
- Patton, M. (2002). *Qualitative research and evaluation methods*. Thousand Oaks, CA: Sage Publications.
- Perrow, Charles. (1986). *Complex organizations: A critical essay*. New York, NY: Random House.
- Porter, A., Murphy, J., Goldring, E., Elliot, S., Polikoff, M., & May, H. (2008). *Vanderbuilt assessment of leadership in education: Technical manual 1.0.* Nashville, TN: Learning Sciences Institute, Vanderbuilt University. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/Vanderbilt-Assessment-of-Leadership-in-Education-Technical-Manual-1.aspx

- Saltzman, A. (2016). The power of principal supervisors: How two districts are remaking an old role. Stories from the field. New York, NY: The Wallace Foundation. Retrieved from: http://www.wallacefoundation.org/knowledge-center/Pages/The-Power-of-Principal-Supervisors.aspx
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75. Retrieved from: http://web.a.ebscohost.com.erl.lib.byu.edu/ehost/pdfviewer/pdfviewer?vid=2&sid=579c4 21b-f3cd-433d-bc76-c53b39838488%40sessionmgr4010
- Turnbull, B. J., Riley, D.L., & MacFarlane, J. R. (2013). *Cultivating talent through a principal pipeline: Building a stronger principalship: Volume 2.* Washington D.C.: Policy Studies Associates, Inc. & RAND Education. Retrieved from:

 http://www.wallacefoundation.org/knowledge-center/Pages/Building-a-Stronger-Principalship-Vol-2-Cultivating-Talent-Through-a-Principal-Pipeline.aspx
- Zeigarnik, B. (1967). On finished and unfinished tasks. In W. D. Ellis (Ed.), *A sourcebook of Gestalt psychology*, New York: Humanities Press.

APPENDIX C

Consent Form

Consent to be a Research Subject

Introduction

| This research study is being conducted by Aaron Wilson, a Doctoral student at Brigham Young | | | | |
|---|----------|--|--|--|
| University and fellow administrator in | | School District, to determine sources of | | |
| administrators' capacity. I am working under the direction of my faculty advisor Sterling Hilton, | | | | |
| a professor at BYU, on this project. You were invited to participate because you are a school- | | | | |
| building administrator in School | ol Distr | ict. | | |

Procedures

If you agree to participate in this research study, the following will occur:

- -You will be interviewed for approximately sixty (60) minutes about sources of capacity, identified by addressing various administrative demands.
- -The interview will be audio recorded to ensure accuracy in reporting your statements.
- -The interview will take place at a location convenient for you, also at a time convenient for you that is either after work or does not conflict with your work responsibilities.
- -The researcher may contact you later to clarify your interview answers for approximately fifteen (15) minutes.
- -The total time commitment will be up to seventy-five (75) minutes.

Risks/Discomforts

All potential risks are small. You may experience restlessness during the interview, stress or anxiety in feeling that you could be accomplishing other work-related tasks. You may worry that in discussing demands that administrators face, that there would be some judgment of you on the part of the researcher—that you might feel like you are being evaluated. It should be noted that as a condition of District allowing my research, a report of my findings will be made available to district administrators. While I make efforts to de-identify administrators in my interviews, transcriptions, coding, analysis, and presentation, there is a risk of a breach of confidentiality. I will mitigate these risks by de-identifying data as quickly as possible after interviews with a file of pseudonyms kept in locations separate from information that would link your responses to your identity. This de-identification includes redacting information in my transcriptions that might identify you. If there are pressing issues that arise, please know that we can reschedule at a time more conducive for you.

Benefits

There will be no direct benefits to you. It is hoped, however, that through your participation researchers may learn about supporting school building administrators and improving their induction training and supports.

Confidentiality

The research data will be kept on computer, external drive, and cloud storage—all of which are password protected, and only the researcher will have access to the data. At the conclusion of the study, all identifying information will be removed and destroyed. Non-identifying data will be

| kept in the researcher's locked office for three years, then destroyed. I will share the results of this study with School District administrators, including the Superintendency. |
|--|
| <u>Compensation</u> There is no compensation for your participation in this study. |
| Participation Participation in this research study is voluntary. You have the right to withdraw at any time or refuse to participate entirely affecting your employment, your standing at the school, or professional relationship with the researcher. |
| Questions about the Research If you have questions regarding this study, you may contact Aaron Wilson at g for further information. You may also contact my faculty advisor Sterling Hilton at Hiltons@byu.edu or 801-921-3195. |
| Questions about Your Rights as Research Participants If you have questions regarding your rights as a research participant contact IRB Administrator at (801) 422-1461; A-285 ASB, Brigham Young University, Provo, UT 84602; irb@byu.edu . |
| Statement of Consent I have read, understood, & received a copy of the above consent and desire of my own free will to participate in this study. |

Name (Printed): _____ Signature: ____ Date: ____

APPENDIX D

Instruments

Instrument One: Email Invitation for Participation in Interviews

"Hi (selected administrator's first name),

This is Aaron Wilson, principal at an and am emailing you to see if you would be willing to help me in my research by participating in an in-person interview. I am researching how public school building administrators address problems in practice faced in schools. The nature of my topic requires a more in-person interview rather than a survey. Ultimately, I am asking if you would be willing if I came to your school (or another place) at a date and time of your convenience that is either outside of work hours or does not conflict with your work responsibilities to conduct a 12-question interview. I don't believe the interview would take more than 60 minutes, but that would depend of course on the length of your responses. :) After I transcribe our interview, it is possible that I may also contact you with brief follow up questions to clarify your responses as needed.

While my research was not commissioned in any way by the district, it has been approved by the superintendency and received IRB approval. All responses remain confidential, are non-evaluative, and of course the whole process is voluntary.

As a point of interest... the process of inviting administrators to participate is initially based on whether the administrator was new to the career or to their administrative assignment within the last four years. From there, selecting which 25 administrators to interview was determined by giving as equal representation as possible to the different levels and demographics of schools.

If you would be willing to take part in my study, it would be greatly appreciated as it your perspective as a building administrator will help propel my research forward. In addition, I hope my findings add value to school districts around the country if it were to be published.

Please email or call me back to indicate if you are willing to take part or not.

Thanks so much!"

Instrument Two: Demographic Questionnaire

| 1. | Prior to becoming an administrator, how many years of teaching experience did you have? | | | | |
|-----|---|---|--|--|--|
| | | Years of teaching at an elementary school: | | | |
| | b. | Years of teaching at a secondary school: | | | |
| 2. | How many years of administrative experience do you have (including any administrative internships)? | | | | |
| | | Years as an elementary assistant principal: | | | |
| | | Years as an elementary principal: | | | |
| | C. | Years as a secondary assistant principal: | | | |
| | d. | Years as secondary principal: | | | |
| 3. | How ma | any years have you worked at a Title I school, either as a teacher or administrator? | | | |
| 4. | At the school at which you currently are an administrator | | | | |
| | a. | How many years have you been here as an administrator? | | | |
| | b. | What grade levels does this school serve? | | | |
| | C. | Is this school a Title I school? | | | |
| | d. | Approximately how many students are enrolled at any given time in this school? | | | |
| | e. | Approximately what percentage of students are on free or reduced lunch? Free: Reduced | | | |
| | f. | What is the approximate percentage of students claiming minority status? | | | |
| 5. | What y | ear were you born in? | | | |
| 6. | - | hat ethnicity do you identify? | | | |
| 7. | | your gender? | | | |
| 8. | How ma | any years of post-secondary (after high school) schooling have you completed? | | | |
| 9. | | | | | |
| 10. | In what | vear did you receive your administrative license or certification? | | | |

Instrument Three: Interview Questions

- 1. "Thank you for your time in meeting with me. I want to ask you questions about the demands you face as a (principal or assistant principal). Some would say that meeting these demands is the role of (a principal or an assistant principal). Call them demands, responsibilities, problems of practice, whatever you like—these things take up our time, energy and efforts. These are important issues, and can be either positive or negative. I would like your help in identifying the demands that (principals or assistant principals) face, but not just any administrator, I would like you to reflect on your experience. As you talk about demands that you face, you will please not share individual instances or names, but speak in more general terms about significant demands or issues you face. A significant issue could be some responsibility you continually grapple with, and defines your work in terms of repetition. A significant issue could also be a problem that does not occur frequently, but when it does, it is urgent or important and essential to resolve well. So... thinking of your experience in education, can you share some significant, general types of issues, problems or demands that (a principal or assistant principal) faces?" issues
- 2. "Thank you. In summary, you mentioned **_issues_.** In my research, I developed a definition of a school problem: "those situations negatively affecting, or having the potential to negatively affect, school functioning, stakeholder satisfaction, or the school or district's organizational goals or advantage—the resolution of which problems call for administrative intervention." After hearing that definition, again think of those types of demands that you face. **Can you think of any other significant issues you face or have faced, that you have had primary oversight in addressing?**" Other Issues
- 3. "Thank you. Now I want to ask you about meeting those demands, resolving those problems, and addressing those issues. (If applicable to their previous answers: "the issues you brought up are varied and likely have different ways to address them.") As an administrator, I believe that even that some issues we face can be resolved extremely well, and I also believe the most skilled and knowledgeable person might not be able to fully address an issue on account of constraints, the problem having no clear solution, or other reasons. So as you talk about resolving different issues and meeting administrative demands, keep in mind that I am asking about the most <u>you</u> could have done for a situation, given the resources, skills, and time that <u>you</u> had. (If a long list of significant demands are given, I will select, where possible, one issue from each of the four types of administrative capacities—Instructional Performance, Non-Instructional School Functioning, Buffering, and School Functioning—choosing the first from this domain her or she mentions). For problem _A_, what would a successful resolution look like for you, and why would that be a success? A For problem B, what would a successful resolution look like for you, and why would that be a success? Be For problem C, what would a successful resolution look like for you, and why would that be a success? C For problem D, what would a successful resolution look like for you, and why would that be a success? domains are addressed, I will allow myself to ask multiple questions from the same domain, totaling in any case four questions about problem resolutions.
- 4. "Thank you. Next I want to talk about personal capacity. In my research, it is suggested administrative capacity has three domains: our skills (what we can do), our knowledge (what we have learned), and our dispositions (our personal values, attitudes, beliefs, and expectations). I mention that definition because not everyone can walk off the street, come into your office, and assume your role. Not everyone can meet the demands you face, address the problems in the same way you do. Being (a principal or assistant principal) takes certain capacities. I will ask you what types of capacities you believe are needed to effectively or adequately address the types of problems we have been talking about. For Problem A, you mentioned that it takes A to resolve this well.

 What types of capacities would (a principal or assistant principal) need to reach that type of resolution?

 A For Problem B you mentioned that it takes B to resolve this well. What types of capacities would (a principal or assistant principal) need to reach that type of resolve this well. What types of capacities would (a principal or assistant principal) need to reach that type of resolve this well. What types of capacities would (a principal or assistant principal) need to reach that type of resolve this well. What types of capacities would (a principal or assistant principal) need to reach that type of resolution?

 C For Problem D, you mentioned that it takes D to resolve this

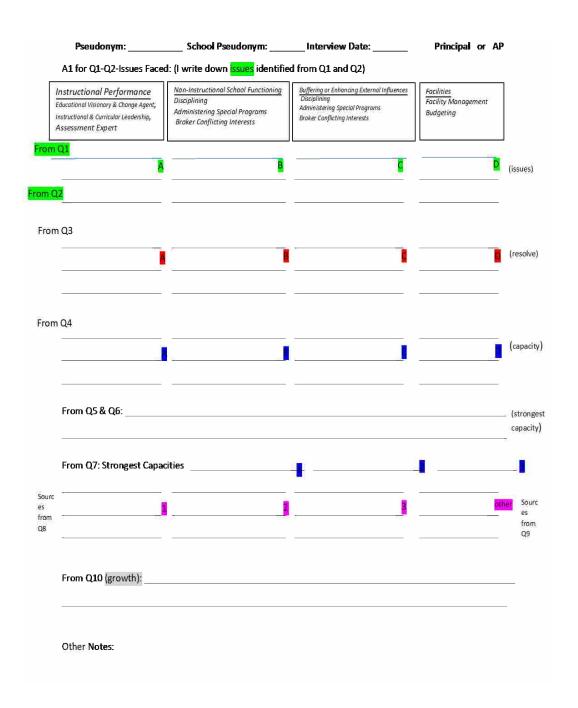
well. What types of capacities would (a principal or assistant principal) need to reach that type of resolution? __D__

- 5. "Thank you. You have listed many different capacities to solve problems or meet demands that administrators need, including **A, B, C, and D**. Now, in a moment I want you to, well, brag about yourself. This might not be in your nature, but speaking about your strengths will be helpful for my research. Think of how you address these significant issues, the capacities needed, and those capacities allow <u>YOU</u> to be good at your job. **Which** capacities <u>do you</u> believe are currently your strongest?" Strongest Capacities
- 6. "Thank you. You have listed Strongest Capacities as your strongest capacities. I am going to ask the same question in a different way as a means of promoting additional reflection. If I were to ask your staff here at (his or her current school), would they identify these same capacities as strengths, or would they perhaps add others? Similarly, if I were to ask your current or former supervisor, or even gain a consensus from parents in your community, what strengths would they speak to? Please know I am not going to ask anyone else about you, but am only asking the question in this way to promote reflection. What might these other groups say are your particular strengths?" Own Capacities revisited
- 7. "Thank you. You have __Own Capacities__ and also Own Capacities revisited as strengths you have that help you do your job well. In thinking about this list of your strengths, I want you to reflect one more time on these skills that allow you to effectively address significant demands your face. Which three of these capacities would you say are the strongest? Strong 1, Strong 2, and Strong 3.
- "Thank you. The answers you have given so far have been important, and have led up to a final group of questions about administrator capacity—identifying the sources of our capacities. As a review, we have talked about the many demands administrators face. Your role as <mark>(principal or assistant principal)</mark> is challenging. The particular capacities—skills, knowledge and dispositions—allow us to meet those demands. You identified three strong capacities that allow you to meet these demands: Strong 1, Strong 2, and Strong 3. Of course, you have many strengths, but for the sake of time, we will focus only on these three for these last few questions. I will ask you to reflect, as thoughtfully as you can, where these capacities came from. In other words, I will ask you about the sources of your capacities. Let me offer a prompt to help this reflection. One, is that tracing back your capacities—how you learned or got good at something—can be very difficult. Just do the best you can. Two, as you consider the different factors in your personal or professional life that helped you be successful, be open in thinking of all possible sources of your capacity. Third and last, remember that capacities are developed in stages, not single moments. As you think of sources that have helped you build your capacities, consider the biggest factors that helped you develop these capacities. For Strong 1 to what sources do you ascribe in building this capacity. In other words, where do you think this strength came from?" (If the administrator implies that this is a strength that they always had, I will ask "It sounds like this was a skill you had even before you were an administrator. Is there something in your profession as an educator that you believe enhanced this skill?") Capacity Sources 1 For Strong 2 to what sources do you ascribe in building this capacity. In other words, where do you think this strength came from?" (If the administrator implies that this is a strength that they always had, I will ask "It sounds like this was a skill you had even before you were an administrator. Is there something in your profession as an educator that you believe enhanced this skill?") Capacity Sources 2. For Strong 3 to what sources do you ascribe in building this capacity. In other words, where do you think this strength came from?" (If the administrator implies that this is a strength that they always had, I will ask "It sounds like this was a skill you had even before you were an administrator. Is there something in your profession as an educator that you believe enhanced this skill?") Capacity Sources 3.
- 9. "Thank you. You listed Capacity Sources 1 as significant factors in developing your capacity to Strong 1, and Capacity Sources 2 as significant factors in developing your capacity to Strong 2, and your also listed Strong 3 as significant factors in developing your capacity to Capacity Sources 3. Keep in mind you have personal characteristics that are unique (I will refer to their demographic questionnaire), as well as having had a unique combination of experiences in the district. You are the only (say their name) in Granite School District, and

maybe the world. In thinking about what makes you successful at Strong 1, Strong 2 and Strong 3, can you think of any other sources of this capacity that you have not yet mentioned?" Other Sources

- 10. "Thank you. The main focus of my research is tracing administrator's strengths, how they acquired these strengths, so that districts may leverage professional development opportunities to provide us the most helpful trainings and resources. I compile the individual responses into general patterns that can inform the improvement of administrative development. As we have talked about strengths, I wonder if I could benefit from asking the opposite question. I will ask if there is any particular skill or knowledge you could acquire that would significantly help you meet the many demands of (principal or assistant principal). In other words, do you feel you have room for growth in a certain area—one that, with added training or support, can help you do better at your job? If so, what is it?" Room for Growth
- 11. "Thank you. You have mentioned having room for growth in Room for Growth. Do you have any initial thought on how you could go about acquiring this skill? In other words, is there a support that could be offered to facilitate this skills, or what would it take for you to improve in this area?" support
- 12. "Thank you once again. This is my last question. **As I try to trace administrators' source of their capacities, do you have any other insight or comments that you feel would help further my research?"**

Instrument Four: Interviewer Reference Tool Used During Interviews



APPENDIX E

Approval for Conducting Study

| | Research & Evaluation | |
|---|--|--|
| Aaron R. Wil | June 2, 2017 | |
| Aalon K. Wil | | |
| Regarding: | District Pipeline Development Program: Participants' Self-Perceived Effects on their Capacity to Solve Professional Problems of Practice | |
| Proposal: | 14096 | |
| The Survey and Research Request Committee has reviewed and approved your research pending the Principal's permission to conduct your research in their building and the informed consent of potential participants. | | |
| As you do yo | ur research please be advised of the following District Policy: | |
| Article X- Division of Instructional Services, Survey and Research Request Committee, 2.b.ii | | |
| | "As a condition for consideration of an application, individuals or entities requesting survey or research authorization shall agree to provide the District with the results of the survey or research prior to any release or publication in the event that authorization is granted." | |
| Good luck wi | th your project. | |
| Sincerely, | | |