Principal Professional Development: A Multiple Case Exploratory Study of District-Led Aspiring Principal Programs Through the Lens of Knowledge Management

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Principal Professional Development:
A Multiple Case Exploratory Study of District-led Aspiring Principal Programs
Through the Lens of Knowledge Management

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A Thesis Presented to the Faculty
of the Graduate School of Education of Harvard University
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ABSTRACT

Research establishes that a positive relationship exists between principal instructional leadership and student achievement (Brewer, 1993; Eberts and Stone, 1988; Hallinger and Heck, 1998; Leithwood, Seashore Louis, Anderson, and Wahlstrom, 2004). Likewise, research indicates that a principal’s ability to influence the purpose and goals of a school, its structure and social networks, its teachers’ commitment, instructional practices, and organizational culture produces statistically significant effects on student achievement (Hallenger and Heck, 1998). In short, school leadership matters. Unfortunately, we are facing a shortage of effective principals, forcing many district superintendents to sometimes settle and take what they can get when looking for principals (Farkas, Johnson, Duffett, Foleno and Foley, 2001). Confronted with a growing school leadership challenge, a number of urban school districts have developed their own principal training programs. Although several of these programs appear promising, it is unclear if school districts have been able to create principal preparation programs that focus on preparing instructional leaders and improve on traditional university-led programs, which are often critiqued as irrelevant and outdated.

This study takes an in-depth look at two district-led aspiring principal programs to determine if they overcame the problems that have plagued university-led programs. Specifically, I examine if the two programs developed a solid knowledge base, overcame causal ambiguity and provided a set of learning experiences that went beyond canonical practices. To perform this examination I conducted a multiple case exploratory study utilizing qualitative research methodology. I conducted my analysis using a unique
This study finds that the programs examined had a solid knowledge base with an emphasis on instructional and community/shared leadership, providing descriptive knowledge (know-what) and procedural knowledge (know-how). However, both programs failed to create systematic, consistent access to causal knowledge (know-why). Data also revealed that despite the aforementioned shortcoming, both programs delivered on learning experiences that went beyond canonical practices. However, variability in program participants’ field experiences weakened claims that the programs studied provided experiences that mirrored the realities of practice consistently for all participants.
CHAPTER 1: INTRODUCTION

In 1983, the National Commission on Excellence in Education released the landmark report, a Nation at Risk, sounding an alarm that the United States faced an education crisis with social, economic, and moral implications. Today many of those warnings have come to fruition. The U.S. has fallen behind other industrialized nations educationally, particularly in math and science (OECD, 2009; Peterson, Woessmann, Hanushek, and Lastra-Anadon, 2011). Persistent achievement gaps have increased since the 1970’s and reading performance in a majority of states is flat (NCES, 2010). Overall, this paints a picture of a nation whose young people are struggling to keep pace with their global counterparts, while a growing number of students, particularly African-American and Hispanic students, get left further behind. While a Nation at Risk sounded an alarm, it also articulated systemic responses that could avert or mitigate this national crisis.

Among the remedies identified within the landmark report was an emphasis on school leadership (Gardner, 1983).

Since 1983, multiple studies have yielded results showing a positive relationship between principal leadership and student achievement (Brewer, 1993; Eberts and Stone, 1988; Hallinger and Heck, 1998; Leithwood, Seashore Louis, Anderson, and Wahlstrom, 2004). Research indicates that a principal’s ability to impact school effectiveness has a mediating effect on student achievement. Specifically, a principal’s ability to influence the purpose and goals of a school, its structure and social networks, its teachers’ commitment, instructional practices, and organizational culture produces statistically significant effects on student achievement (Hallenger and Heck, 1998). Wahlstrom, Seashore-Louis, Leithwood, and Anderson (2010) found that leadership efforts that
either: 1) create a culture in a building that fosters teacher professional learning, or 2) directly engages individual teachers in their professional growth, produces indirect effects on student achievement. These types of leadership moves are often defined as instructional leadership (Blase and Blase, 1999; Hallinger and Murphy, 1987; Leithwood, 2004; May and Supovitz, 2010). Findings reveal that these types of instructional leadership moves matter most – has the greatest impact – where it is needed most, for our most vulnerable students (Hallenger and Heck, 1998, p.178).

Furthermore, “…research shows that principal leadership is positively associated with teacher satisfaction (Stockard and Lehman, 2004), teacher morale (Weiss, 1999), commitment to the workplace (Rosenholtz and Simpson, 1990), and teacher retention (Ingersoll, 2001; Ingersoll and Smith, 2004)” (Grissom and Harrington, 2010, p.584).

In short, principal leadership matters. Unfortunately, just as our need for principal leadership could not be more urgent, we are facing a shortage of highly effective principals (ERS, 1998; Farkas, Johnson, Duffett, Foleno, and Foley, 2001). A 2001 Public Agenda national survey of public school superintendents and principals found that 40% of superintendents surveyed reported difficulty finding qualified principal candidates. Only about half, 52%, reported that they were happy with the job their principals were doing (Farkas et. al., 2001). Those figures rose and decreased respectively for superintendents in urban school districts. Sixty-one percent (61%) of urban superintendents reported a shortage of principals, while only 41% reported being happy with the overall performance of their principals. (Farkas et. al., 2001). Sixty percent (60%) of all superintendents surveyed reported they sometimes had “to settle and take what they could get” when looking for principals.
More attention needs to be devoted to the development of instructional leaders in response to this shortage of high quality principals and principal candidates. Despite this evident need, and the indirect effects of principal leadership on school performance, few studies have analyzed the critical elements of professional development for principals (Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Davis, Darling-Hammond, LaPointe, and Meyerson, 2005). This relative dearth of research on the topic has left a void in what we know about developing highly effective principals.

Notwithstanding the paucity of research in this area, a number of urban school districts have developed their own principal training programs in acknowledgement of the high demand for, and limited supply of, high quality principal leaders (Orr, King, and LaPointe, 2010; USDOE, 2004). Indeed, many of these programs have been heralded and appear promising (Davis, Darling-Hammond, LaPointe, and Meyerson, 2005; Elmore and Burney, 1997; McLester, 2011). However, it is unclear if school districts have been able to create principal preparation programs that focus on instructional leadership and clearly define and teach what principals need to know to be effective instructional leaders.

This study takes an in-depth look at two urban school districts’ aspiring principal programs. Specifically, through the use of a holistic multi-case exploratory study I examine how district-led aspiring principal programs operate, what their instructional focus is and how clear they are about what principals need to know and be able to do to be effective principal leaders.

The remainder of this dissertation is organized into six (6) chapters: literature review (chapter two); research design and methodology (chapter three), case study
descriptions (chapter four), findings (chapter five), discussion (chapter six), and conclusion (chapter seven).

Chapter two provides a review of the literature on principal professional development and the literature on knowledge management. First, I begin with an analysis of the programmatic features and elements of principal professional development that emerge from the literature. It is followed by a review of the literature on knowledge management, in particular, the identification of key dimensions and critical components of knowledge management. Third, by comparing and analyzing these complementary bodies of literature, I identify and examine the intersections between the two literatures, making the case that knowledge management serves as a suitable analytic lens through which to examine principal professional development.

Chapter three includes a description of the study, the methodology used, and the research design employed. It includes a brief description of each research site, an overview of data collected, and an outline of data analysis strategies. Additionally, it includes efforts to maximize validity and neutralize validity threats.

Chapter four presents a holistic description of each case. For each case I present demographic information for the host district, an outline of the program structure, a description of the program’s knowledge base, and the program focus and overall instructional emphasis. Throughout each case description I also touch on various program components that are customarily found in aspiring principal programs. I conclude the chapter with a summary of how each program component is implemented or experienced across the two cases.

Chapter five details findings that emerged from an analysis of data from my two
case sites. Data is analyzed through the analytic lens of knowledge management to answer my primary research questions: do district-led programs have a clear knowledge base, and do they overcome the problems of causal ambiguity and reliance on canonical practice? Findings are presented in several sections, accompanied by examples from each case to illustrate the finding. In some instances, I delve more deeply into a single case to further explain the finding that has been derived.

Chapter six outlines salient issues that surfaced in the course of the study. First, I review the dissertation results. Next, I discuss issues that emerged through the course of the study and explain the practical implications of these results for creating and managing aspiring principal programs. In the final section of the chapter, I describe possible directions for future research: investigating other kinds of principal professional development, and investigating how the graduates of these programs perform upon entering the principalship.

Chapter seven concludes the dissertation with a review of the research questions, a summary of the research findings, and a revisiting of the overall significance of this research.
CHAPTER TWO: LITERATURE REVIEW

As stated above, principal leadership matters. Given the growing demand for high quality principals, we must increase what we know about how to develop the principal leaders we need. One place to look for greater insight into how organizations help their leaders and managers learn is in the business literature. Within the area of knowledge management there is an existing body of research that can frame an analysis of education practice and inform future research in the education sector. It is the intersection between principal professional development and knowledge management that is the focus of this literature review. The guiding questions that focus this review are:

1. What are models or elements of principal professional development that emerge within the education literature?

2. What is knowledge management and what aspects of this literature are most germane to leader development?

3. How might these two literatures together – the business literature on knowledge management and education literature on principal development – better inform the study of principal development in education (i.e., is there a framework, useful taxonomy, or set of research propositions that emerge from considering these two streams together)?
This review will begin with an analysis of the programmatic features and elements of principal professional development that emerge from the literature. It will be followed by a review of the literature on knowledge management, in particular, the identification of key dimensions and critical components of knowledge management. Third, by comparing and analyzing these complementary bodies of literature, I will identify and examine the intersections and note any challenges or shortcomings of principal professional development made clearer through the lens of knowledge management. I will conclude the chapter with a summary of this literature review and analysis, outlining a framework which may be used for future analysis and examination of principal professional development in education.

**Principal Professional Development – A Historical Context**

The preparation and on-going development of principals was originally the sole responsibility of universities. From the onset, there were differing views on the purpose and priorities of principal preparation programs (Levine, 2005). From amongst the diversity of perspectives arose two primary approaches. The first was a “practitioner-based” approach, which emphasized a specialized curriculum for experienced teachers that covered only subjects that future administrators would need for their positions (Cooper and Boyd, 1987; Powell, 1976). These programs were part-time, allowing teachers to remain in the field while they continued their educations in pursuit of professional advancement in non-teaching roles. Critics of this approach labeled these programs as superficial, designed for those pre-occupied with getting ahead, comparing such preparation to that reserved for the trades. It was said that such schools of education
had become “…hostile to the development of intellectual grasp and [had] a preoccupation with simple practical problems which could easily be solved by ‘experience, reading, common sense, and a good general education.’ Able students would not attend [such] schools of education” (Powell, 1976, p.11).

In response to such critiques, an alternative approach was developed. This alternative would be a full-time two-year “academically-focused” program comparable to law or medical schools. These programs offered students without experience a more rigorous, general core academic curriculum in their first year. Proponents of the approach declared it the solution to superficial training, stating that its success would:

…lay in training a new kind of professional – an educator rather than a mere craftsman. An educator [understands] the importance of value questions as well as of practical procedures. In addition, as a member of a unified profession rather than a fragmented subprofession, [she or he] could make informed judgments on policy issues in all significant areas of educational concern. (Powell, 1976, p.13)

Detractors called this alternative approach snobbish, impractical, and too long in duration, questioning who would elect such lengthy preparation for the profession. They asked, what teacher would want a two-year master's when an “ambitious practitioner” could get a doctorate in the same amount of time? They feared that though the academically-focused approach had some merits, it simply didn’t promise the return on investment expected by practitioners pursuing upward mobility (Powell, 1976).

Confronted with these two opposing views, schools of education pushed forward without
consensus “on whom programs should enroll, what they should prepare their students to do, what they should teach, whom they should hire to teach, what degrees they should offer, and how educational administration relates to teaching and research” (Levine, 2005, p.16).

Today, colleges and universities continue to dominate principal pre-service and in-service professional development. Forty-six (46) states require prospective school leaders to obtain at least a master’s degree, or to have completed an approved principal preparation program prior to appointment (Education Commission of the States, 2011). Such requirements have led principals to colleges and universities in droves for pre-service preparation. The result is that fewer than 2% of principals nationally have just a bachelor’s degree (Haller, Brent, and McNamara, 1997, p.226). Moreover, fifty-five percent of principals with master’s degrees have obtained those degrees in educational administration, as have three-fourths of principals with specialist certificates (Haller, Brent, and McNamara, 1997, p.225). Consequently, the vast majority of principals are prepared by colleges and universities, specifically, schools of education.

However, from 1995 to 2010 a number of school districts developed their own principal training programs in response to shortages of high quality principal candidates (Orr, King, and LaPointe, 2010). The pioneer of district-led principal training programs was Community District 2 in New York City. Community School District 2 was heralded in the late 1990s for its overall professional development efforts, but received particular attention for its Aspiring Leadership Program (Elmore and Burney, 1997). This program, as do most district-run programs, partnered with a local university to offer credit bearing courses. These courses were taught by university faculty, central office
staff, and sitting principals. The Boston Public Schools created something comparable, creating an in-district School Leadership Institute (SLI). The hallmarks of the Institute were the Boston Principal Fellowship, created to recruit and prepare talented new principals who could hit the ground running, and a New Principal Support System, developed to provide coaching and support to new principals (USDOE, 2004). Outside of Cleveland, thirteen (13) suburban school districts developed a collaborative that partnered with Cleveland State University’s School of Education to create an accelerated route to principal licensure and certification entitled the First Ring Leadership Academy. The mission of the academy was to recruit, train and retain principal candidates that were up to the challenge of leading schools in their unique school districts. In Illinois, the Chicago Public Schools (CPS), in partnership with the Chicago Principals and Administrators Association, created the Chicago Leadership Academies for Supporting Success (CLASS). CLASS operated five professional development programs that collectively offered programming to aspiring principals, beginning principals, and experienced principals (USDOE, 2004). One program of CLASS was the Leadership Academy and Urban Network for Chicago’s aspiring principals (LAUNCH), a program designed to support and develop aspiring principals for CPS. LAUNCH targeted strong assistant principals within CPS, in addition to identifying teacher-leaders and other high-potential individuals who met the basic requirements of a master’s degree, an administrative certificate and at least six years of teaching experience. The program targeted the development of key competencies through a five-week intensive program at the Kellogg Graduate School of Management at Northwestern University and a semester-
long full-time apprenticeship with a mentor principal (Chicago Public Education Fund, 2014).

In addition to school districts, third-party intermediary organizations have also begun partnering with universities to offer alternative pathways to licensure and the provision of induction support for beginning principals (McLester, 2011; Peterson, 2002). The Big Picture Company, in partnership with three local colleges and universities, created the Principal Residency Network in Rhode Island (Davis, Darling-Hammond, LaPointe, and Meyerson, 2005). The program is designed to prepare talented teachers to lead small innovative schools. Principal candidates travel from throughout New England to participate in the degree granting program, receiving principal certification upon satisfying all program requirements. New Leaders for New Schools (NLNS) is perhaps the most notable of intermediary organizations that provides an alternative pathway to preparing for the principalship. NLNS currently works with 13 school districts to train over 700 future school leaders to take on challenging assignments in urban settings. Participation in their program requires a three-year commitment that includes: a 5-6 week internship, a year-long full-time residency, and 2 years of coaching and support following placement (McLester, 2011; New Schools Venture Fund, 2008; USDOE, 2004).

Together colleges and universities, school districts, and intermediary organizations offer aspiring principals a variety of professional development opportunities and pathways to the principalship. However, colleges and universities continue to struggle with what they should prepare their students to do, and what they should teach. Although there is wide agreement that principals matter, and empirical evidence that their instructional leadership can have positive effects on school
performance, little is known about the skills and capacities principals need to be effective (Grissom and Harrington, 2010). This lack of research has allowed program directors to develop the instructional content of professional development programs based on their own (implicit) definitions of what effective school leaders should know and be able to do without a solid empirical research base (Davis, Darling-Hammond, LaPointe, and Meyerson, 2005; LaMagdeleine, Maxcy, Pounder, and Reed, 2009; Taylor, Codeiro, and Chrispeels, 2009). A review of the literature reveals that principals along the continuum of experience – aspiring, beginning, and veteran – are being prepared to become instructional leaders, managerial leaders, and political leaders through a diversity of teaching methods. The following analysis will describe the instructional content and instructional methods used in principal development programs and programming.

**Principal Professional Development – Instructional Content**

**Instructional Content in Colleges and Universities**

A good deal of research has been done on the instructional content of university-led principal preparation programs. Arthur Levine (2005), former president of Teachers College at Columbia University, conducted a study of education schools. The study included national surveys of deans, chairs, and directors of education schools, education school faculty members, education school alumni, and school principals who had graduated from or were attending a university-based degree or certification program. More than eighty-percent (80%) of principal respondents reported taking the same nine courses: instructional leadership (92%), school law (91%), educational psychology (91%), curriculum development (90%), research methods (89%), historical and
philosophical foundations of education (88%), teaching and learning (87%), child and adolescent psychology (85%), and school principalship (84%). These courses reflect a de facto set of “core courses” being offered in administrator preparation programs. Three of nine courses – instructional leadership, curriculum development, teaching and learning – can be considered courses on instructional leadership. Two of nine – school law and school principalship – can be considered courses on managerial leadership. Two of nine courses – educational psychology, child and adolescent psychology – can be considered education theory courses. The remaining two courses – research methods and foundations of education – are more general courses. These findings resemble those of Silver and Spunk (1978), who surveyed the status of administrator preparation programs in the 1970’s. They found that across the 258 programs surveyed, eight subject areas were emphasized: administrative theory, leadership, decision making, school law, curriculum development, instructional supervision, district administration, and finance/budgeting (Nunnery, 1982). Hess and Kelly (2007) conducted a study specifically focused on what skills and knowledge are taught in principal preparation programs. They collected 210 syllabi from a national cross-section of 31 principal preparation programs. Those syllabi were broken down by week, producing 2,424 “course weeks” of information about what is taught in these programs. Findings of the study revealed the portion (percentage) of course weeks covered by one of the following eight (8) subjects:

1. Managing for results (15.7%) – using data to set goals, monitor progress, and allocate resources.

2. Managing personnel (14.9%) – hiring, supporting, and evaluating personnel.
3. Managing classroom instruction (10.9%) – pedagogy, curriculum, and classroom management.

4. Technical knowledge (29.6%) – school law, school finance, and facilities management.

5. External leadership (8.0%) – working with external constituencies and attending to school board relations, school-community partnerships, and school politics.

6. Norms and values (12.1%) – promoting norms and values that promote equitable and effective schooling.

7. Leadership and school culture (6.0%) – leadership theory and the role of the principal cultivating school culture.

8. Other (2.8%) – miscellaneous items that fell outside of the aforementioned categories.

The combined findings of Levine (2005), and Hess and Kelly (2007) indicate that a minority of core courses in university offered principal preparation programs address instructional leadership, and less than half of the course weeks, 47.5%, address topics directly related to instructional leadership. Though the content of university programs reflects an acknowledgement of principal as instructional leader, their content is not
substantially different from that of programs nearly 30 years earlier (Nunnery, 1982; Silver and Spunk, 1978). Overall, university programs continue to be weighed down by their past, which focused on principal as administrator and business manager (Cooper and Boyd, 1987; Murphy and Hallinger, 1987; Sparks and Hirsch, 2000). This continued emphasis, despite the demonstrated correlations between instructional leadership and student achievement, has led some school districts to develop their own programs, with a different emphasis, in order to produce the principals they desperately need.

Instructional Content in Alternative Programs

Alternative principal credentialing and in-service programs run by school districts have only surfaced over the last 15 to 20 years. These emerged in response to a growing need for effective principals, and an acknowledgement of the shortcomings of programs run exclusively by colleges and universities. By partnering with local colleges and universities, school districts put themselves in the driver’s seat, creating programs that feature both the “managerial” and “instructional” aspects of the principalship, placing an emphasis on instructional leadership and the local context (Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Elmore and Burney, 1998; McLester, 2011; Orr, King, and LaPointe, 2010; Peterson, 2002; USDOE, 2004; Wahlstrom, Seashore-Louis, Leithwood, and Anderson, 2010). Course content in district programs is frequently drawn from existing university-based courses (Orr, King, and LaPointe, 2010).¹

¹ Universities in some states are compelled by state certification and licensure requirements to align course content with existing standards, such as the National Policy Board for Educational Administration’s Interstate School Leaders Licensure Consortium (ISLLC) standards. Forty-one states have adopted or slightly modified ISLLC standards (McCarthy and Forsyth, 2009). ISLLC
However, “the process of developing course content varie[s]…[with courses being] developed by university faculty, district personnel, or both” (p.67). District input and oversight has resulted in the aforementioned change in scope.

The “managerial” elements of district-led programs mirror the content of conventional university run courses. Common content includes education/school law, school finance, school management and operations, and technology use. The “instructional” elements of district programs tend to emphasize five (5) areas (CCSSO, 2008; Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Elmore and Burney, 1998; Halinger and Murphy, 1987; Orr, King, and LaPointe, 2010; Peterson, 2002; Leithwood, Seashore Louis, Anderson, and Wahlstrom, 2004; USDOE, 2004):

1. Defining a school mission – Defining a mission and shared vision of the school, developing specific school goals, and clear standards and expectations of behavior.

2. Managing curriculum and instruction – Articulating curriculum in accordance with provided curriculum frameworks, aligning the taught curriculum with the assessed curriculum, ensuring vertical and horizontal curriculum alignment; protecting instructional time, articulating what good instructional looks like, and focusing adult learning on the improvement of instruction.

Educational leadership standards attempt to balance the instructional, technical (or managerial), and political aspects of the principalship (CCSSO, 2008).
3. Monitoring student progress – Collecting and analyzing student achievement data at the classroom, grade-level, and school-wide levels. Disaggregating performance data by race and gender, informing re-teaching strategies based on shared learning challenges, and coordinating tiered supports to close achievement gaps.

4. Supervising and developing teachers – Observing instruction, providing timely feedback, evaluating teachers, and coordinating professional development aligned with the learning needs of students and the learning needs of adults.

5. Building a positive school climate – Nurturing a culture of collaboration, trust, high expectations, and collective ownership for results. Acknowledging different cultures and backgrounds, and promoting continuous improvement.

Family and community engagement is the only area addressed in district-led professional development that is generally absent from university-led programs (Leithwood, Seashore Louis, Anderson, and Wahlstrom, 2004; Orr, King, and LaPointe, 2010; Peterson, 2002; USDOE, 2004; Wahlstrom, Seashore Louis, Leithwood, and Anderson, 2010). District-led programs encourage principals to sustain positive relationships with parents and community partners. Both are viewed as assets important to success in the principalship. Several district programs offered courses on leadership, which included items such as self-management, risk taking, transformational change, and distributed leadership.
Principal Professional Development – Instructional Methods

How programs structure candidates’ learning and engagement of program content is as important as the content itself (Orr, King, and LaPointe, 2010). The National Staff Development Council asserts that principal professional development should be long-term, job-embedded, support reflective practice, and provide opportunities for principals to discuss and solve problems with peers (Sparks and Hirsch, 2000). The ability of programs to meet this standard varies. Across the spectrum of formal administrator professional development opportunities, principals are offered courses and seminars, provided with internships and mentoring, and work in networks. Though there is limited research on the efficacy of these “instructional methods,” they represent the vast majority of principal professional development opportunities.

Courses

The primary program delivery method used in the professional development of principals is courses and seminars (Cooper and Boyd, 1987; Kockan, Bredeson, and Riehl, 2002). The predominant pedagogical method used in courses, specifically university courses, has been lecture and discussion (Barth, 1986; Sparks and Hirsch, 2000; Peterson, 2002; Taylor, Cordeiro, and Chirspeels, 2009). Witters-Churchull (1991) randomly selected 400 principals and assistant principals in Texas to evaluate the practices of university principal preparation programs, inquiring principally about the instructional modes used to develop nine generic skills. Respondents indicated that lecture and discussion were the most frequently used instructional modes in their skill development. “When respondents were asked to rate the effectiveness of the
instructional modes used, however, they generally agreed that ‘lecture and discussion’ was only minimally to moderately effective’ (p.341). This trend has carried over into on-line distance learning courses where lecture and discussion is the dominant form of instruction (Sherman and Beatty, 2007; Taylor, Cordeiro, and Chirspeels, 2009). Despite the introduction of technology to create greater access to professional development opportunities, the pedagogical methods embedded in those on-line courses remains the same as traditional courses.

However, a growing number of programs have worked to present content in the contextual realities of everyday principal practice. This has resulted in an increased use of case studies and problem-based learning in both university and district-led courses and seminars (Bridges and Hallinger, 1995; Davis, Darling-Hammond, LaPointe, and Meyerson, 2007; Shakleford, 1998; Sparks and Hirsch, 2000). In the case method, the primary unit of instruction is the case, which details a real-life situation that challenges readers to grapple with a multifaceted issue they will confront in their work (Bridges and Hallinger, 1995; Taylor, Cordeiro, and Chirspeels, 2009). In teaching a case, an instructor leads a class discussion on the case, allowing students to work individually or in teams to develop solutions to the cases presented.

For [principal] preparation programs, cases offer an opportunity to examine and reflect upon a particular problem – its content, context, students, pedagogy, other characters, prior experiences, personal views and values, scripts – and to access and apply the professional knowledge base to interpret data and make decisions. (Geltner, 1995, p.4)
Problem-based learning offers similar opportunities. Comparable to case methodology, the unit of classroom instruction in problem-based learning is a project. Embedded within a project is a problem, a set of learning objectives, and a set of reading materials. “The problems are usually messy, ill defined, and representative of the problems the students will face as principals” (Bridges and Hallinger, 1995, p.8). Students work in 5-7 person project teams to frame the problem and craft a strategic response informed by the accompanying readings. Class sessions are used as working meetings for project teams, facilitated by a team leader and supported with group developed meeting agendas and notes. Students’ contributions to, and behavior on, the project team, as well as the final work products, are the basis of student assessment (Bridges and Hallinger, 1995; Shakleford, 1998). Together, the use of case methods and project-based learning has become a suitable alternative to lectures.

Internships

Internships and residencies, alongside course work, have become critical elements of most principal pre-service programs. More than 90% of university-led programs require an internship experience of some kind (Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007). Most, if not all, district-led programs require an internship. These experiences vary widely in their length, scope, and the authenticity of leadership experience (Barnett, Copland, and Shoho, 2009; Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Orr, King, and LaPointe, 2010). The length of an internship can range from 10 weeks to as long as a full-year. Many universities and districts provide a full-time internship. District-led programs frequently offer paid internships, allowing principal candidates to immerse themselves in the learning experience. Often the length
of the internship impacts the scope and nature of an intern’s work (Orr, King, and LaPointe, 2010). Unfortunately, one of the largest reported obstacles to effective internship experiences is the lack of resources to allow practicing professionals to leave their jobs in order to spend extended time learning in a leadership role (Fry, Bottoms, and O’Neill, 2005).

The scope of internship activities varies as greatly as internship length. During internships, interns are provided with a number of learning opportunities including: instructional walkthroughs, grade-level teacher meetings, budget development, data analysis, and family engagement (Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Fry, Bottoms, and O’Neill, 2005; Orr, King, and La Pointe, 2010). The depth of intern participation in these activities ranges from observing an activity, to participating in an activity to leading an activity. Shorter internships have translated into experiences that only allow interns to observe, most often through shadowing, and at best participate in an activity. Longer internships have allowed interns to build their own leadership capacity by leading school-based activities (Orr, King, and LaPointe, 2010). These types of authentic activities during the internship experience, though beneficial, are absent from most internships. A survey of 61 principal preparation programs in 16 southeastern states found that most internships fail to provide participants with authentic leadership experiences, noting that only a “third of the programs surveyed put interns into situations where they [could] gain a comprehensive understanding of what they must know and do to lead changes in school and classroom practices that make higher student achievement possible” (Fry, Bottom, & O’Neill, 2005, p.5). Support structures that foster authentic activities include support from a full-time program administrator,
supervision, and mentoring from an experienced principal assigned to an intern. The absence of these supports has been the greatest critique of internships and a primary reason cited for the absence of more authentic activities during internships (Barnett, Copland, and Shoho, 2009; Orr, King, and LaPointe, 2010).

Mentoring

Mentoring has become a complement to, and active component of, internships in recent years. In 2007, roughly half of the nation’s states required mentoring for new principals (Wallace Foundation, 2007). This type of professional development for principals is an acknowledgement that principals need on-going support upon entrance into the profession and throughout their careers. The majority of formal mentoring programs are for new principals as part of induction programs (Gross, 2009; Lashway, 2003b). In the literature, mentoring is described as a personal relationship between a protégé and an experienced practitioner, where the practitioner supports his or her protégé with the professional preparation and career navigation needed for success. (Daresh, 2004; Gross, 2009; Mertz, 2004; Wallace Foundation, 2007). The practitioner fulfills his or her role as mentor by serving as a guide, teacher, trainer, coach, counselor, role model, and/or sponsor. There is a minority opinion which asserts that these roles are separate and distinct from a “true mentor relationship,” and each fall along a continuum of advisory relationships (Daresh, 2004; Mertz, 2004). Nonetheless, each of these roles is characterized as mentoring.

Embedded within the literature are five mentoring “program principles” (Daresh, 2004; Gross, 2009; Wallace Foundation, 2007):
1. Clear program purpose(s);
2. Explicit criteria for mentor selection (i.e., the qualities of good mentors);
3. Intentional preparation of mentors to make their work with a protégé effective;
4. Strategic matching of mentors with protégés; and
5. Sufficient program length and intensity of support.

The primary purposes for principal mentoring programs are socialization, skill and knowledge development, and career advancement (Daresh, 2004; Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007; Gross, 2009; Mertz, 2004; Wallace Foundation, 2007). To such ends, mentors guide new principals’ entrance into the assumption of new roles, new job identities, and new expectations, as well as adoption of organizational routines. Mentors teach and model effective practice for novice and veteran principals to improve their instructional leadership. In many school districts, designated central office administrators work one-on-one with principals in this role, supporting principal professional development in areas such as conducting classroom observations, having difficult conversations with teachers about how to improve their teaching practice, and constructing a student-centered master schedule (Honig, Copeland, Rainey, Lorton, and Newton, 2010). Through this one-on-one mentoring, principal professional development can be differentiated and tailored to the learning needs of individual principals. Intentionality about the selection, preparation, and placement of mentors is emphasized throughout the literature. The lack of explicit selection criteria and inadequate preparation of mentors has been cited as a major obstacle to effective mentoring (Gross, 2009; Orr, King, and LaPointe, 2010; Wallace Foundation, 2007).
Likewise, inadequate attention to match between mentor and protégé has hindered mentoring relationships. Such matches should be based minimally on the compatibility of professional goals, interpersonal styles, and learning needs (Daresh, 2004).

Individuals that have been in formal mentoring programs identify several major benefits (Daresh, 2004). Protégés report that they’re more confident about their professional competence. They report seeing a translation of educational theory into daily practice. Communication skills are reported as improved. Novices report learning valuable “tricks of the trade,” and an increased sense of belonging in their new roles and settings. Collectively, these benefits make mentoring one of the most valuable forms of professional development aspiring principals receive. However, to deliver on the above benefits it has been stressed that mentoring has to be long enough in duration and sufficient in intensity (Gross, 2009; Orr, King, and LaPointe, 2010). Several mentoring programs, particularly those offered by intermediary organizations, are for two years (New School Venture Fund, 2008; USDOE, 2004). District-led programs are frequently a full-school year. Unfortunately, funding constraints at times have limited district-led programs, as well as university-led programs, to often provide an insufficient dosage to deliver on the promise of a formal mentoring relationship (Gross, 2009; Orr, King, and LaPointe, 2010; Wallace Foundation, 2007).

Networks

A fourth method of providing professional development to principals is the creation and management of networks. In pre-service programs students are placed into cohorts – a small group of colleagues that become a support structure (Orr, King, and
LaPointe, 2010). “Proponents of cohort grouping strategies maintain that adult learning is best accomplished when it is part of a socially cohesive activity structure that emphasizes shared authority for learning, opportunities for collaboration, and teamwork” (Davis, Darling-Hammond, LaPointe, and Meyerson, 2007, p.10). Frequently, these cohort groups become a peer network that principals later rely on for social and professional support (Darling-Hammond, LaPointe, Meyerson, Orr, and Cohen, 2007). These linkages of individuals are frequently initiated by central office administrators, but are also convened by principals themselves for the purpose of sharing concerns and potential solutions to problems (Daresh and LaPlant, 1984; Honig, Copeland, Rainey, Lorton, and Newton, 2010). Within networks, principals themselves serve as “peer instructors” and resident experts, creating a community of practice. Networks serve as places where collaborative learning happens, as colleagues analyze data, conduct classroom observations, share problems of practice, and present what’s working in their buildings (City, Elmore, Fiarman, and Teitel, 2009; Daresh and LaPlant, 1984; Honig, Copeland, Rainey, Lorton, and Newton, 2010). Likewise, shared needs can be addressed in the network by central office staff through the brokering of external expertise for the group, modeling effective practice, or sharing frameworks and protocols.

In summary, the literature on principal professional development describes a set of learning opportunities whose content, pedagogy, and purpose are diverse, and vary in their levels of depth and perceived quality. There are pockets of promise described, particularly in district-led programs and those offered by intermediary organizations. Still, despite the rich descriptions of current practice, little is known empirically about the efficacy of programs led by universities, school districts, or intermediaries. Here, an
examination of the business literature may provide insight that can be of benefit to leadership development in education. Specifically, an analysis of the literature on knowledge management might prove prudent and germane to the needs of the education sector.

**Knowledge Management**

Despite an abundance of literature on principal (administrator) professional development, little is known about the efficacy of this work or the critical elements of professional development programs for principals (Darling-Hammond, LaPointe, Meyerson, and Orr, 2007; Davis, Darling-Hammond, LaPointe, and Meyerson, 2005). However, within the business literature one may examine an existing body of research that can inform practice and research in education. Specifically, the field of knowledge management can provide an analytic lens through which to look at educational practices. Through this lens one may analyze the act of acquiring knowledge or sharing knowledge, and the conditions that foster such exchanges. Often this field is thought of as solely information systems – software and computerized databases. Knowledge management is much more than that. It is comprised of a set of strategies and practices used in and by organizations to identify, capture, create, codify, and share knowledge. A review of the literature surfaces three categories that summarize the field, which may prove particularly germane to education: knowledge forms, knowledge functions, and knowledge capabilities. By outlining these three areas we may better understand what knowledge management is, how it applies to organizations generally, and to education specifically.
Knowledge Forms

Tacit and Explicit Knowledge

Knowledge takes various forms. Polanyi (1966) asserted that knowledge exists along a continuum. At the opposite ends of this continuum are two dimensions of knowledge – tacit knowledge and explicit knowledge. Tacit knowledge is internalized, highly personal, and difficult to communicate to others (Nonaka, 1991; 1994). This concept is exemplified by the famous words from Polanyi (1966), “We know more than we can tell” (p.4). It consists of technical skills, such as those a principal would need in order to observe instruction, provide feedback to a teacher, or create a master schedule. It also includes beliefs, values, insights, intuitions, mental models, and perspectives “so ingrained that we take them for granted, and therefore cannot easily articulate them” (Nonaka, 1991, p.98). These internalized aspects of knowing are broken into two parts, the proximal and the distal (Polanyi, 1966). It is the proximal aspect of knowing – individual units that are the particulars of a skill or belief within us – that we may not be able to tell. The distal aspect of knowing is the integration of the particulars into a coherent whole best seen from farther away. Together, they make up personal knowledge, which serves as the foundation of the continuum, which on the tacit end of the continuum is difficult if not impossible to codify.

Explicit knowledge represents the other end of the continuum. Building from that which is tacit, it is formal, systematic, and can be easily communicated and shared. It is literally and figuratively the tip of the iceberg (Nonaka, 1991; 1994). Tacit and explicit knowledge are not different types or kinds of knowledge, but are intrinsically inseparable and mutually complementary (Nonaka and von Krough, 2009; Polanyi, 1966). The
defining attribute of knowledge that distinguishes it from being tacit or explicit is its level of codification (Kogut and Zander, 1992). The extent to which a set of rules and relationships have been defined and applied to a set of knowledge, the easier it can be made explicit and thus shared. An example of knowledge that has both tacit and explicit elements is swinging a bat. The act has certain discernible fundamentals that can be captured, observed, taught, and learned. These are the explicit elements. However, there are certain instincts and insights that a master hitter cannot easily describe or teach. Such aspects of hitting may separate the good from the great. Teece (1977) calls this uncodified element “the relevant art” of an action, and they are the parts of the function that are tacit. Combined, tacit and explicit knowing makes up the knowledge or knowing that resides in people, knowledge that is put to everyday use in organizations.

Knowledge in Organizations

Knowledge is not only embedded within individuals, it also resides in organizations, represented in its routines, processes, practices, and norms (Cyert and March, 1963; Davenport and Prusak, 1998; Kogut and Zander, 1992; Levitt and March, 1988). Levitt and March (1988) explain that routines include:

Forms, rules, procedures, conventions, strategies, and technologies around which organizations are constructed and through which they operate. It also includes the structure of beliefs, frameworks, paradigms, codes, cultures, and knowledge that buttress, elaborate, and contradict the formal routines. Routines are independent of the individual actors who execute them and are capable of surviving
considerable turnover in individual actors…[They are] transmitted through socialization, education, imitation, professionalization, personnel movement, mergers and acquisitions. (p.320)

Kusunoki, Nonaka, and Nagata (1998) call these routines “the way things are done.”

Much of this knowledge is tacit within organizations, evading the conscious awareness of most members. Information in policy manuals and employee handbooks are the explicit elements of this knowledge, the tip of the iceberg which is seen. The majority of knowledge lies in tacit form beneath immediate detection in the form of routines and organizational norms.

The technical skill of an organization resides in its people (Davenport and Prusak, 1998; Prahalad and Hamel, 1990). The irony of this knowledge is that the more tacit it is – the more difficult to share or communicate – the more valuable it is. In its most tacit form, knowledge is difficult for competitors to imitate, while also being difficult to spread throughout its systems (Prahalad and Hamel, 1990). Quinn, Anderson, and Finkelstein (1996) call these skills professional intellect and place them into three types: know-what, know-how, and know-why. Kogut and Zander (1993), in contrast, call these three types: declarative knowledge, procedural knowledge, and causal knowledge.

Know-what (or declarative knowledge) is the basic “book learning” that novices attain through initial training or certification. This knowledge is necessary, but far from sufficient to navigate the complexities of real-world application. “Know-how [or procedural knowledge] is the accumulated practical skill or expertise that allows one to do something smoothly and efficiently” (von Hippel, 1988, p.76). It is the translation of
theory into practice, acquired over time through experience. An illustration that
distinguishes know-what from know-how is a recipe. The recipe itself is necessary. It
includes the raw ingredients and their quantities, a sequence of steps in which the
ingredients should be combined or prepared, and what methods of preparation should be
used. It is the know-what. How you execute the specified cooking and preparation
methods are imperfectly reflected in the description, but are essential to produce the
desired end (Kogut and Zander, 1992). This execution is the know-how. Know-why (or
causal knowledge) is “deep knowledge of the web of cause-and-effect relationships
underlying a discipline” (Quinn, Anderson, and Finkelstein, 1996, p.183). With this
knowledge the practitioner can anticipate the subtleties that can impact the outcome. It
surpasses the functional skill of how to do something and enables one to reproduce it in a
different context. This “distinction between the ability to produce a product and the
capability to generate it is fundamental” (Kogut and Zander, 1992, p. 392).

Knowledge Functions

Within knowledge management there are three primary knowledge functions:
knowledge generation, knowledge codification, and knowledge transfer (Davenport and
Prusak, 1998; Grover and Davenport; 2001; Hansen, Nohria, and Tierney, 1999; Nonaka,
1991, 1994). These each occur through interactions between individuals.

Knowledge Generation

All knowledge flows through people. It is the knowledge of people individually
and/or collectively that constitutes the knowledge of organizations. Hiring personnel
with the knowledge an organization seeks is the most direct way for an organization to generate knowledge (Davenport and Prusak, 1998; Hansen, Nohria, and Tierney, 1999; Nonaka, Toyama, and Nagata, 2000). This method, acquisition, is effective only to the extent that knowledge and knowledge-based skills are highly visible. Typically, a person’s tacit knowledge is not reflected in their formal education or previous job titles. Additionally, tacit knowledge can be difficult to generate through acquisition, for it can be context specific or dependent on the routines, processes, focus, culture, or technologies of the person’s previous work environment. Therefore, though it is the most direct method of knowledge generation found in the literature, it is not without its challenges. Another form of acquisition is what Davenport and Prusak (1998) call rental. The most common example of renting knowledge is hiring a consultant or consulting firm. This temporary injection of tacit knowledge is something many organizations seek, with the aim of transferring the knowledge of consultants to full-time personnel or leveraging the temporary assets to develop routines, processes, or practices that will endure beyond the length of the working agreement (Hansen, Nohria, and Tierney, 1999). If an organization is renting knowledge to solve a problem, they may be paying for a service or a set of recommendations. As with all acts of acquisition, the needed expertise is seen as existing and most easily available from outside of the organization.

A second method of knowledge generation for organizations is research and development (Davenport and Prusak, 1998). These functions are customarily set apart from the everyday work of an organization, providing people in these units with the time,

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2 In addition to hiring, organizations also purchase organizations to acquire knowledge. However, this practice is not accessible to public sector organizations like schools or school districts.
flexibility, and freedom to explore ideas and possibilities. However, a shortcoming of this method is that it separates the majority of the organization from the innovation, creating a chasm between the two that sometimes prevents knowledge generated from spreading throughout the organization. For that reason, some organizations elect to immerse the R & D function within the organization through teaming, intentionally forging work groups whose members have different skills, ideas, and values focused on a shared problem or product (Davenport and Prusak, 1998; Nonaka, 1994). These teams must exist within a state of creative tension, sharing a common language, without having a set of shared predictable solutions. Sufficient time and space is required for the group to work together. The result of these struggle sessions can be the generation of new knowledge for the betterment of the organization.

In contrast to acquisition, a third method of knowledge generation, conversion, contends that needed knowledge resides within organizations through its existing personnel, but must be converted from one form to another to generate new knowledge. Nonaka (1991; 1994) identifies four modes of conversion: socialization (from tacit knowledge to tacit knowledge), externalization (from tacit knowledge to explicit knowledge), combination (from explicit knowledge to explicit knowledge), and internalization (from explicit knowledge to tacit knowledge). Through socialization one individual shares tacit knowledge with another. This can be done with or without language. Apprentices (novices and protégés) work with a master teacher (or mentor) and learn their craft through observation, imitation, and practice. By doing so they are socialized into the field. This calls for a shared experience that allows the master teacher an opportunity to share her thinking processes. When an individual is able to articulate
the foundations of her tacit knowledge and convert it into explicit knowledge, it is externalization (Nonaka, 1991). Externalization involves practices that help an individual express his or her tacit knowledge in words or images, concepts or frameworks, metaphors, analogies, or stories. These allow that knowledge to become both public, external to the possessor, and tangible. These are necessary requirements for knowledge to be shared with a wider group of individuals.

Combination entails two or more individuals exchanging and/or combining pieces of explicit knowledge to create a more complex set of explicit knowledge. This process takes place through interactions such as formal meetings and informal telephone conversations. Through this exchange, knowledge is analyzed, sorted, categorized, and configured into new explicit knowledge. Once this new explicit knowledge is shared with others, recipients begin to internalize it, using it to “broaden, extend, and reframe their own tacit knowledge” (Nonaka, 1991, p. 99). This is internalization. This new knowledge may be technical or conceptual, thus it can be acquired through observation, imitation, reading or listening. Once possessed, it becomes intertwined with the knowledge of the new possessor, ingrained within them, becoming their own tacit knowledge.

Knowledge Codification

As stated above, the knowledge of people in an organization, individually and/or collectively, constitutes the knowledge of that organization. However, most of that knowledge is tacit. In order for that existing tacit knowledge to generate new knowledge
through externalization, combination, or internalization it must become codified.\textsuperscript{3}

Codification is to arrange a set of technical or cognitive knowledge into a scheme (or schema), picking out the features that are essential to the performance (Davenport and Prusak, 1998; Polanyi, 1966). This is a difficult task in organizations because of the gap in what we assume people do, and what it is they actually do. “Actual work practices are full of tacit improvisations that the employees who carry them out would have trouble articulating” (Brown and Duguid, 2000, p.76). Many organizational practices necessarily veer from documented maps presented in manuals, or theories presented in courses, to accommodate the complexity and specificity of a given context. Articulating and codifying what happens when members of an organization (practitioners) go off of the map is a challenge.

Nevertheless, there are sets of tacit and explicit knowledge that are codified and stored by organizations. Organizations do this regularly through the documentation of protocols, interview guides, training materials, form letters, programming codes and market analyses (Hansen Nohira, and Tierney, 1999). These “knowledge objects” are customarily stored in an electronic database or web-based platform. These tactics are useful in capturing know-what, but some forms of tacit knowledge, know-how and know-why, may be impossible to codify and store in a database (Davenport and Prusak, 1998; Duguid, 2005; Polanyi, 1966). This is important, for there is a difference between knowing what is done (know-what), and knowing how to do it oneself (know-how) (Duguid, 2005; Kogut and Zander, 1992). Reading a document in a database does not

\textsuperscript{3}A case can also be made that codification is necessary for effective socialization and knowledge transfer.
confer all of the knowing required to carry out a task. Thus, even well executed
codification efforts may be insufficient, because the power within the knowledge object
may only be fully released by corresponding know-how or know-why still in tacit form
(Duguid, 2005). Some tacit know-what which can be captured and documented may
remain elusive. Even though some knowledge may be arranged into a schema or
documented, the process of getting it on paper would be costly and/or laborious, and thus
prohibitive (Davenport and Prusak, 1998; Levitt and March, 1988). Because of that, an
organization’s rules, routines, and processes may go unrecorded. Subsequently, that
which cannot be codified, remains tacit, and must be obtained through other means.

Knowledge Transfer

The primary purpose of knowledge codification, and to a great extent knowledge
generation, is knowledge transfer for application. In fact, it is knowledge transfer that is
vital to organizational learning, organization competitiveness, and organizational
performance (Argote, Levine, Ingram, and Moreland, 2000; Kogut and Zander, 1992;
Nonaka, 1991; Stichcombe, 1990). The process of knowledge transfer occurs in five
stages: initiation, transmission, acceptance, absorption, and application (Davenport and
Prusak, 1998; Levitt and March, 1988; Nonaka, 1991; Szulanski, 2000). Through this
process organizations are able to establish and/or sustain a competitive advantage.

The first stage of the knowledge transfer process is initiation. Here a person is
confronted with either a problem or a possible solution which serves as an impetus for
knowledge transfer. If the needed or possessed knowledge is highly tacit, a “transfer
relationship” is sought (Davenport and Prusak, 1998; Szulanski, 1996). The action of
sending infers the existence of a recipient. For transmission to be successful, the recipient must accept transmission. Acceptance is based on the sender’s credibility, which can be influenced by many things: culture, language, race, gender, age, experience, perceived status, or prior accomplishments. Whether a person is receptive to what another offers is a crucial intangible, which can buoy or sink knowledge transfer efforts (Argote, Levine, Ingram, and Moreland, 2000; Davenport and Prusak, 1998, Szulanski, 1996; Teece, 1977). The next step in the process is absorption. For a learner to assimilate and integrate the transferred knowledge, the recipient must have some prior related knowledge. That prior knowledge serves as a cognitive adhesive, as well as a framework to recognize what is important (key) to performance (Arrow, 1969; Cohen and Leventhal, 1990; Teece, 1977). Someone completely new to a set of practices will have a steep learning curve, lengthening the absorption period. Transfer is only complete and successful once the knowledge has become internalized, routinized, and applied (Szulanski, 1996). The speed and duration of this process – from initiation to application – will vary based on the people involved and the organizational context in which they work. I will say more about the latter when addressing knowledge capabilities.

Organizations use various strategies to transfer knowledge. When knowledge is explicit it may be readily available for transfer in databases and repositories. Knowledge that cannot be codified is transferred through different methods. One strategy is through the formation of “transfer relationships” (Davenport and Prusak, 1998; Szulanski, 1996). These relationships between two or more individuals usually take the form of an apprenticeship or mentoring. Through conversations, observations, modeling, or imitation, the mentor and protégé share insights, techniques, and cautions to develop the
expertise of the protégé (Hansen, Nohira, and Tierney, 1999). These formal arrangements are made as intentional efforts to transfer a specific practice to a targeted set of individuals to solve a particular problem. Tacit knowledge is also transferred through informal relationships. Networks and “open forums” serve as spaces where the members of an organization can organically seek or offer professional insight or expertise (Grant, 1996; Wenger and Snyder, 2000). In these venues knowledge can be shared face-to-face, over the phone, via e-mail, or through the use of newer technologies such as skype. These networks range from loose webs of communication to consistently convened communities of practice. A popular method for sharing insight and expertise within these communities is through storytelling (Brown and Duguid, 1991; 2000). The use of stories has proven to be particularly good at describing sequence and cause, providing the “what” and “why” that is needed to solve problems of practice (Brown and Duguid, 1991). They also can provide a common language and common framework for describing or deconstructing a problem, providing the raw ingredients for future experimentation and innovation as a form of collaborative problem solving. These strategies reflect the acknowledgement that tacit knowledge in organizations is non-transferable without interaction or exchange between individuals. These formal and informal relationships provide the space for those exchanges to occur.

**Knowledge Capabilities**

Knowledge functions are carried out by individuals, but they are facilitated by the conditions – capabilities – of the organization (contexts) in which those individuals work. The literature on knowledge management outlines three sets of capabilities that are
crucial to knowledge functions: local capabilities, architectural capabilities, and process capabilities. This multi-faceted set of assets allows an organization to leverage the knowledge it possesses.

Local Capabilities

Local capabilities are in essence an organization’s knowledge base (Kusunoki, Nonaka, and Nagata, 1998; Levitt and March, 1988; Nonaka, 1994; Teece, Pisano, Shuen, 1997). It is embodied in its people, products, and technologies. As stated prior, the individual and collective know-what, know-how, and know-why of an organization’s members is the most valuable asset of an organization. This knowledge may be codified, documented and stored in explicit form, or it may dwell within the organization in tacit form. These sets of technical knowledge, as well as the insights, beliefs, and mental models of personnel are an organization’s knowledge base. It is complemented by the technologies of an organization (Kusunoki, Nonaka, and Nagata, 1998). If explicit knowledge has been documented and collected, then the databases, documents, and other data repositories are part of the organizational knowledge base. If the organization has patents or other intellectual property embedded in its products, they too would be included in its knowledge base. Together, these units of knowledge are the local capabilities of an organization. They can grow or contract with the entrance, exit, or development of personnel. As a field evolves, intellectual products can become antiquated and decline in importance. Innovations can dramatically improve the knowledge base of an organization. Databases can increase or decrease in significance depending on how current, relevant, and accessible their contents are.
Architectural Capabilities

Architectural capabilities are the “knowledge frame” of an organization (Grant, 1996; Kusunoki, Nonaka, and Nagata, 1998; Mintzberg and Van der Heyden, 1999). This frame reflects how people organize themselves in an organization, who they get information from, who they learn with, and how groups and departments are linked. It is an organizational configuration that does not necessarily adhere to hierarchies, reporting lines, or departmental divisions. They instead tell us how parts and people are linked, or not linked, to each other (Mintzberg and Van der Heyden, 1999). They often reflect the actual as opposed to the intended linkages within an organization. Teece, Pisano, and Shuen (1997) state that knowledge frames must be dynamic – responsive to the changing environments of their markets and conditions – and malleable enough to create or support linkages that allow an organization to exploit its knowledge base to sustain competitive advantage. Unfortunately, a knowledge frame cannot ensure or spontaneously generate effective communication, but it can hinder it (Grant, 1996). The organic configurations that develop can omit or neglect working groups or single individuals with knowledge needed for the design of a product or the resolution of a problem. Likewise, a frame can create a silo, isolating a person or group, providing protection from organization influence, or fostering “intellectual atrophy,” in which the practice of those isolated does not grow or evolve. Overall, the architectural capability of an organization cannot ensure success, but it can have a significant impact on productivity and innovation (Kusunoki, Nonaka, and Nagata, 1998).
Process Capabilities

Of the three capabilities, process capabilities appear to have the greatest influence on productivity and organizational performance (Kusunoki, Nonaka, and Nagata, 1998). Such capabilities are embedded in organizational routines, procedures, culture, norms, and communication. They are in essence, the way work occurs (Leavitt and March, 1988), thus influencing an organization’s knowledge base, operations and performance (Teece, Pisano, and Shuen, 1997). Process capabilities noted in the literature as valuable are a common vocabulary, common conceptual knowledge, common culture and shared experience among specialists (Grant, 1996). These organizational attributes foster the interaction and exchanges that generate knowledge and allow the transfer of tacit knowledge. They create the conditions for trust and credibility to develop among colleagues, increasing the likelihood of knowledge absorption. They allow for communities of practice to develop across departments and organizational functions (Wenger and Snyder, 2000). In short, the literature reveals that process capabilities are “core capabilities.” An organization’s ability to generate or transfer knowledge is greatly reliant on the depth and breadth of these capabilities presence throughout the organization.

To summarize, knowledge management is comprised of a set of strategies and practices used in organizations to identify, capture, create, codify, and share knowledge. This is exemplified in the literature through the identification and description of knowledge forms, knowledge functions, and knowledge capabilities. Together, they provide an analytic lens – framework – through which to examine principal professional development.
Challenges and Shortcomings of Principal Professional Development –
A Knowledge Management Perspective

A review of the literature on knowledge management reveals an analytic lens (framework) – knowledge forms, knowledge functions, and knowledge capabilities – through which education practice can be examined. Looking through this analytic lens, three primary challenges confronting principal professional development are illuminated: a weak knowledge base, poor knowledge codification resulting in theory that has little relevance for actual practice, and inadequate process capabilities to foster collaborative learning. By looking at principal professional development in this manner, these existing challenges can be analyzed and framed, revealing opportunities and priorities for future research.

Weak Knowledge Base

Effective knowledge generation, codification or transfer relies on local capabilities that include a definable set of knowledge. In the area of principal practice and principal professional development, there is a consensus that the existing knowledge base – know-what, know-how, and know-why – is weak. This sentiment is widely shared throughout the literature as early as the 1970s on through to the present. Immegart (1977) asserted that “a more extensive knowledge base is needed in educational administration, yet no one is doing much about it” (p.320). Nunnery (1982) added that the variance in informed opinion about what educational administrators need to know, the different preparation program practices, and the apparent incongruities
between preparation and what practitioners are spending much of their time doing, call attention to a major inadequacy in the knowledge base for educational administration. (p.48)

Crowson and McPherson (1987) state that “Despite the importance of [principal practice], and despite the size of the nation’s administrator preparation ‘establishment,’ the knowledge base available to the profession that manages our schools is not well developed” (p.45). Murphy and Halllinger (1987) go further, stating directly that “the knowledge base guiding administrative training is inadequate and inappropriate” (p.253). Murphy (1992) concludes that “the result [of this neglect] has been the development of an impoverished – and often inappropriate – knowledge base and, as a consequence, an ersatz mission for training programs” (p.86). Brown, Anfara, Hartman, Mahar and Mills (2002) in their examination of professional development of middle level principals state that:

The need for specificity to meet principals’ needs is not new; yet, the absence of substantive research and inservice training is alarming. Answers to the what, where, and how questions regarding middle level administrators’ access to inservice are scarce at best. (p. 113)

Davis, Darling-Hammond, LaPointe and Meyerson (2005) in a review of research on developing successful principals, a study commissioned by the Wallace Foundation, found that “While there is increasing research on how principals influence school
effectiveness, less is known about how to help principals develop the capacities that make a difference in how schools function and what students learn” (p. 4). Grissom and Harrington (2010) in a study on the efficacy of principal professional development state that:

While principals serve an important role in developing high-performing schools, the research on what knowledge, skills, and abilities principals need to be successful is not well developed. Without this basis, it has been difficult for scholars to specify what administrator professional development (APD) should teach, what forms it should take, or by what criteria its success should be evaluated. (p.585)

Stated otherwise, it doesn’t appear we know what needs to be known in the area of principal professional development. Within knowledge management this type of manifestation of a weak knowledge base is referred to as causal ambiguity.

Causal ambiguity occurs when the factors responsible for successful or ineffective performance cannot be determined (Lippman and Rumelt, 1982; Szulanski, 1996). This can be caused by several factors. The leading cause of causal ambiguity is a high level of tacitness associated with a set of practices. Another cause is unique or complex features of a particular context. Lastly, a lack of clarity on the inputs required to produce an outcome can also lead to causal ambiguity (Mosakowski, 1997). All three of these apply to principal professional development. Currently, many principals’ practice is so deeply tacit that they aren’t fully conscious of exactly what they do or how they do it, complicating the transfer of what they know to others. Barnett (1987) contends “that the
nature of the principalship prevents many principals from reflecting upon their daily actions…the uncertainties and ambiguities inherent in their roles also make it difficult for them to see patterns in their actions” (p.136). Likewise, the complexity of their working conditions (context) makes it difficult for them or observers to discern and codify what knowledge is necessary for effective principal practice. In some instances, the knowledge sought may be available, but costs too much to collect. We are still uncertain about the inputs required to produce skills which are essential to effective principal practices. Nevertheless, if neither researchers nor practitioners can identify and codify what principals need to know in order to be effective, or determine which methods of knowledge transfer (instructional methods) are most successful, then the field will be forced to tolerate a weak knowledge base.

Poor Knowledge Codification – Theory Doesn’t Reflect Realities of Practice

When principals are asked about their level of satisfaction with their formal preparation, they consistently indicate that what they were taught did not reflect the realities of the workplace. Farkas, Johnson, and Duffett (2003) surveyed 925 principals about the principalship. Sixty-three percent (63%) of respondents indicated that the typical leadership program in graduate schools of education were out of touch with the realities of what it takes to run today’s school districts. Levine (2005) surveyed 1,800 principals, of which 612 responded. Eighty-nine percent (89%) of respondents agreed with the statement that schools of education don’t adequately prepare their graduates to cope with classroom realities. These responses reflect what Sparks and Hirsch (2000) describe as “a growing number of school leaders [who] are rejecting the traditional
university-based administrative certification and ‘continuing education’ programs because they are too theoretical and classroom-oriented… they are calling for practical job-oriented training based on solving real school problems” (p.5). The university-led programs principals attend for pre-service and in-service professional development work under “an inherent assumption…that scholars adept at developing models and frameworks are also skilled in translating them into practice and that universities can effectively develop bridges between research and practice” (Murphy and Hallinger, 1987, p.251). They have not. Instead, these conditions persist because of poor knowledge codification which results in a reliance on canonical practice.

Canonical practice is simply espoused practice (Brown and Duguid, 1991). They are most often the result of an inability to adequately codify a set of knowledge, resulting in a “thin description” of practice that is espoused to take place. These practices frequently reflect a single predetermined path with no alternatives, assuming a level of predictability and simplicity in the contexts encountered (Brown and Duguid, 1991, p.42). These espoused practices are assumed to be sufficient enough to solve any problem encountered during the course of work. They are the basis of the content of many university-led pre-service and in-service programs. Guides and manuals for school leaders are composed of canonical practices. These guides “reflect ideal or desired ways of enacting tasks (espoused theories or canonical practice) rather than what people actually do (theories in use or non-canonical practice)…” (Spillane, Halverson, and Diamond, 2001, p.24). When confronted with canonical practices as guides, principals must make up the difference between what they’ve been provided and what is needed, producing improvisations and workarounds to bridge the gap between theory and practice.
to serve children (Brown and Duguid, 1991). Principals attempt to build “thick
descriptions” of practice by forming or joining communities of practice (networks).
Nonaka, Toyama, and Nagata (2000) refer to these spaces as “ba,” a context shared by
practitioners who interact with each other to generate or codify knowledge. These
spaces, when situated in organizations with sufficiently strong process capabilities, can
facilitate the transfer and/or generation of knowledge to foster the professional
development of principals. Without them, principals toil in isolation, attempting to figure
out what to do (know-what) and how to do it (know-how).

Inadequate Process Capabilities

As stated above, in spite of a weak knowledge base weighed down by thin
descriptions of canonical practices, there are still opportunities for principals to be part of
spaces that foster their professional development. Research indicates that strong process
capabilities are necessary for these spaces to result in the transference of knowledge and
improved organizational performance. Kusunoki, Nonaka, and Nagata (1998) found that
effective communication had the most prominent effect on system-based firms’
performance. Szulanski’s (1996) findings were similar. He found that after causal
ambiguity, an arduous relationship between the transferor and transferee was the largest
barrier to knowledge transfer. When a positive relationship existed, knowledge transfer
more easily occurred. Ghoshal and Barnett (1994) found that organizational learning
results in part from “mutual cooperation,” which they define as stretch, discipline,
support, and trust. Nonaka, Toyama, and Nagata (2000) found that transferring
knowledge requires: time, effort, trust, caring, commitment, positive norms, and a
supportive organizational culture. Byrk and Schneider (2002; 2003), in comparable fashion, concluded that relational trust is a key resource for school improvement. They found that:

as individuals interact with one another around the work of schooling, they are constantly discerning the intentions embedded in the action of others… These discernments tend to organize around four specific considerations: respect, personal regard, competence in core role responsibilities, and personal integrity. (Byrk and Schneider, 2003, p.41-42)

Unfortunately, the process capabilities required to develop these conditions in school systems exist in pockets, but are not widespread. In the absence of a common language, a common understanding of the work, or work conditions that encourage collaboration and trust, the interactions which are key to knowledge transfer do not happen. Instead education has institutional structures that “[create] a normative environment that values idiosyncratic, isolated, and individualistic learning at the expense of collective learning. This phenomenon holds at all levels…” (Elmore, 2000, p. 20). Without reversing these conditions, knowledge transfer will consistently be impeded.

**Summary**

This literature review has sought to accomplish two goals. First, to describe the distinct and separate elements of principal professional development and knowledge management as they emerge from the education and business literatures respectively. Second, to analyze these two sets of literature to determine which aspects of the
knowledge management literature are most germane to leader development. In the course of this analysis I have sought to establish that the knowledge management elements of knowledge forms, knowledge functions, and knowledge capabilities can serve as a useful taxonomy for examining principal professional development (see Table 1). In the process of this review, several challenges and shortcomings in existing practice to develop principals emerged.

The most salient challenges for leader development that appeared in the literature are a weak knowledge base, poor knowledge codification, and inadequate process capabilities. This translates into principal professional development that lacks a clear purpose, lacks a definition of what principals need to know to be effective, and is unclear about how best to teach principals. The result has been pre-service and in-service preparation that principals consistently report as only mildly relevant and unreflective of the realities of their day-to-day work. The conditions of their work environments attempt to hinder efforts to learn collaboratively or share best practice in formal and informal networks. Consequently, many leaders attempt to learn as individuals, isolated from their peers.

Notwithstanding these shortcomings, there are pockets of excellence that emerge from district-led principal professional development efforts. If we accept the premise that knowledge management can serve as a suitable analytic lens through which to examine principal professional development, then research on how school districts design, focus and deliver their professional development, analyzed though this lens, could illuminate ways to overcome the aforementioned challenges. This possibility represents a gap in the research. Further study of principals’ development during pre-service
preparation through this analytic lens could illuminate the critical elements of professional development for principals, which could advance our practice in producing and sustaining the school leaders our nation so desperately needs.
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CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

The acknowledged importance of principal leadership for school performance, and the shortcomings of traditional university-led principal preparation programs, has led to the emergence of school districts as providers of principal preparation. However, though these programs have been heralded as innovative by various foundations, publications, and federal agencies, when analyzed through the lens of knowledge management have they overcome obstacles that beset their predecessors? What is the knowledge base of district-led programs? Does the knowledge base of these programs resolve issues of causal ambiguity? Do district-led programs reflect actual practice or are they based on canonical practices? I seek to explore the knowledge base of district-led principal preparation programs, examining the characteristics and qualities of these knowledge bases, as well as the extent of their knowledge codification efforts to provide programs that reflect actual practice. To this end, I have chosen to explore the following research questions:

1. How did the district and its partners structure the principal preparation program?
   - How long is the program?
   - What were program requirements?
   - Who were key institutional partners in the planning and/or implementation of the program, if any?

2. What is the knowledge base of the program?
   - What was the instructional focus of the program?
   - What competencies – aspects of principal practice – were emphasized?
o What did the program assert that aspiring principals need to know (know and be able to do) to affect school-level conditions that foster student academic success?

o What knowledge gaps appear, if any?

o What types of knowledge—declarative, procedural, causal—were emphasized?

o What beliefs, values, or mental models were emphasized, if any?

o How closely did the (skills and) knowledge taught reflect what principals really do?

**Methods**

Addressing the above research questions requires detailed data about aspiring principal programs, shaped in part by the insights and perspectives of program administrators, instructors, mentors, and participants. Therefore, I chose to conduct a holistic multiple case exploratory study utilizing qualitative research methodology, seeking to explore a proposition that has attracted little research or formal theorizing in order to inform future research (Maxwell, 2005; Yin, 2003). Edmondson and McManus (2007) refer to research of undeveloped propositions as nascent theory research. As such, a qualitative research design built upon exploratory interviews and document analysis is a sound methodological fit for this study (pp. 1162-1163). I utilized a multiple-case replication design (Yin, 2003) to study each case, treating each individual case as a whole study, attempting to literally replicate the conditions of the prior case. In doing so, I hope to increase the analytic benefits and power of my findings.
Sites

My study focused on two urban school districts, purposefully selected. Given the nature of my study, I have concluded that purposeful selection (sampling) is best suited to answer my research questions. Patton (1980) states that “purposeful sampling is [an acceptable] strategy when one wants to learn something and come to understand something about certain select cases without needing to generalize to all such cases” (p.100). He goes on to state that “the logic and power of purposeful sampling lies in selecting information rich cases for study in depth” (Patton, 1990, p.169). Light, Singer, and Willet (1990) recommend purposeful selection (sampling) when confronted with a limited, small, number of sites. They warn against attempting to pick a “typical” or “average” site, for “the problem with selecting average sites is that it is difficult to identify and defend any particular typical site…the key point [being] that there is no such thing as a typical [site]” (p.54). In acknowledgement of such an admonition, I have chosen not to select typical sites, but have identified two complementary sites (Yin, 2003). Both sites, cases, offer district-led aspiring principal programs that were seen as models for other urban school districts. Both have been funded by national foundations, and have been lifted up as exemplars worthy of deeper study, documentation, and perhaps replication. The first urban school district chose to create its own leadership program to produce school leaders with competencies aligned with district needs, becoming a competitor to traditional university-led programs. The second urban school district chose to collaborate with a traditional university-led program to “change candidate selection, program content, field experiences, and assessment to improve the likelihood of producing candidates with district defined competencies” (Orr, King, and
LaPointe, 2010, p. 43). This study will be a retrospective look at both programs over a three to four-year period. Maxwell (2005) states that “selecting those times, settings, and individuals that can provide you with the information that you need in order to answer your research question is the most important consideration in qualitative selection decisions” (p.89). These complementary cases are information rich, providing a unique opportunity to learn about the qualities and characteristics of each respective program’s knowledge base. By analyzing these complementary cases through the analytic lens of knowledge management, I will gain a greater understanding of existing practice which can contribute to theory in the field.

**Data Collection**

Documents

Within this study I analyzed both primary and secondary documents for each case. Primary documents included, but were not limited to: candidate application materials, funding proposals, course profiles, syllabi, program faculty profiles, participant profiles, meeting agendas, capstone assignments, principal competencies, program budgets, program design overviews, rubrics, policies, protocols, newsletters, and recruitment materials. Secondary documents included year-end program evaluations, mid-year program evaluations, program audits, articles, policy documents, and case studies. In total, over 2,000 documents were analyzed. The vast majority of primary documents are in electronic form. The majority of secondary documents are hard copy. All electronic documents were stored in a central data repository, as well as in a back-up
repository at an alternative location. Hard copy documents were stored at a secure central location.

Interviews

Within each case I interviewed a purposeful sample of 12 individuals. These informants included program administrators who oversaw the development and implementation of the program, instructors who taught core courses, principal mentors, and program participants, whose insight and perspectives illuminated how the aspiring principal program was experienced. The sample was selected purposefully to adequately capture the heterogeneity in the population (Maxwell, 2005, p.89). This type of purposeful selection is also called maximum variation sampling (Maxwell, 2005; Patton, 1990). This approach was utilized in both cases to ensure diversity within each case sample, increasing my confidence that the perceptions and perspectives captured are representative of the larger population of informants within each site. Interviews with program administrators were 90 minutes in duration. Interviews with all other informants lasted approximately 60 minutes, and were done either face-to-face or via phone. Each interview was digitally recorded, transcribed verbatim, and both transcripts and raw interview data were stored in a central data repository, as well as in a back-up repository at an alternate location.

I developed semi-structured protocols (Appendix F) to guide interviews (Maxwell, 1996). The use of semi-structured protocols permitted me to ask a common set of targeted questions to each stakeholder group, while allowing flexibility to pursue lines
of questioning that emerged during interviews. Interviews were confidential and posed minimal to no risk to study participants.

**Data Analysis**

**Analytic Field Notes**

A running set of informal field notes was kept throughout the data collection process to capture key questions, noteworthy learnings, and important details during both cases. These field notes provided initial insight into each program’s design and structure; program focus; knowledge emphasis; knowledge gaps; and connections to actual practice. Field notes were used to examine trends across stakeholder groups, and to develop codes. A standard format was used for capturing these notes to foster comparability across data sets. This strategy provided an efficient way to note significant themes and patterns within each case, and across both cases, throughout the data collection process.

**Coding and Analysis**

I analyzed interview transcripts and documents by developing coding categories informed by the aforementioned analytic lens. These etic categories – codes – served as the analytic foundation of my data analysis. Additional emic categories were added, based on concepts that emerged from the data (Maxwell, 2005, pp.97-98). Passages within interview transcripts that illustrated emergent themes were highlighted to provide vivid descriptions of themes in the words of informants (Seidman, 1998). Likewise, portions of documents were also highlighted and labeled to foster triangulation of the
data during the analysis process. Both processes were completed with the aid of qualitative data analysis software.

Validity

I employed several strategies to address validity threats to this study. Specifically, I worked to ensure against three particular threats: bias, reactivity, and generalizability. The following is an explanation of how each validity threat was addressed.

Bias

As one using purposeful selection (sampling), I had to protect against the validity threat of sample bias. To reduce the likelihood of biasing my data by who I interviewed, I intentionally worked to purposefully select a sample of informants that: 1) were from different racial backgrounds; 2) represented both genders; 3) included program participants from elementary, middle, and high school backgrounds; and 4) included participants that had varied professional experiences prior to entering the program (Yin, 2005). Regarding the latter group, I intentionally worked to interview participants that left the classroom directly for their respective programs, participants who had been assistant principals or deans, and participants that had already participated in a university-led program and obtained their administrative certification. Instructors represented a diversity of areas (e.g., instruction, data use, family engagement, etc.), and all program administrators were interviewed. This diversity of perspectives created a sample that is reflective of the population of possible informants, surfacing themes and issues of both
programs’ operations and intricacies. By testing a theory of my own, I also worked to protect against researcher bias. A safeguard built into my study to combat such bias was the triangulation of data sources, comparing document analysis data with interview data. By doing so, I worked to “…[validate] information obtained through interviews by checking program documents and other written evidence that [could] corroborate what interview respondents report[ed] [and vice versa]” (Patton, 1990, p.467).

Generalizability

A case study examining two cases raises questions of generalizability, or what Yin (2003) refers to as external validity. I expect and fully accept that I will be unable to apply these results to programs beyond the two sites being studied. I don’t seek to generalize from “sample-to-population,” but hope to make “analytic generalizations” to existing and new theories (Miles and Huberman, 1994, pp.27-28). “In analytical generalization, the investigator is trying to generalize a particular set of results to some broader theory” (Yin, 2003, p.37). That is the goal of this study, to develop a theory that can be extended to other cases (Maxwell, 2005).
CHAPTER 4: CASE DESCRIPTIONS

In this chapter, I provide a retrospective picture of two district-led aspiring principal programs. Specifically, for each case I present demographic information for the host district, an outline of the program structure, a description of the program’s knowledge base, and the overall instructional emphasis. Throughout each case description I also touch on various program components that are customarily found in aspiring principal programs (e.g., coursework, field-based experiences, etc.). I conclude the chapter with a summary of how each program component is implemented or experienced across the two cases. I use pseudonyms for both districts, programs, and any quoted study participants to provide them anonymity. A profile of each program can be found in the appendices (see Appendix A).

Mid-Central School District

The Mid-Central School District (MCSD) is an urban school district in the United States. When MCSD launched its aspiring principal program it served 62,879 students K-12 in 135 schools, led by 135 principals. The backgrounds and needs of its students varied. MCSD’s students were a majority Black and Hispanic, 48% and 28% respectively with an additional 15% white, and 9% Asian. Seventy-five percent (75%) of students were eligible for free or reduced-price meals. Twenty percent (20%) of MCSD students had special learning needs. Twenty-one percent (21%) were English Language Learners. The mobility rate of students was 22% annually. During the period of this study Mid-Central was led by Superintendent Dr. William Wagner.
When Dr. Wagner entered the district five years earlier, Mid-Central was a district in turmoil. Upon assuming the superintendency he became MCSD’s third superintendent in five years. Two years prior to his arrival there had been dramatic changes in governance in the district, resulting in new board leadership and a new political landscape serving as unchartered waters. The state had adopted new state tests with a higher standard – some of the highest in the country – and the district simply wasn’t ready for the rigor it would encounter in the years to come.

In Dr. Wagner’s third year, tests reflecting the new standards were finally administered and the results were staggering: just 4% of fourth graders were proficient in reading and only 8% were proficient in math. Over 40% and 57% of fourth graders were performing at the lowest levels in reading and math respectively. In high school, failure rates on end-of-year state exams were even more dramatic at 57% in English and 75% in Math.

By this time the district was in its third year of a five-year education reform plan. The goal, as Wagner explained it, was “not to create a few more good schools…[but] to improve the entire district, so that all schools would be good schools.” To achieve this aim the district integrated four tenets within its reform plan:

- Setting clear expectations for what students should learn in core content areas.
- Establishing a curriculum that gave students and teachers access to rigorous content.
- Creating expectations about instructional practices through the adoption of a district-wide pedagogical approach.
• Providing extensive support for teachers through a coherent professional development strategy designed to help them improve their instructional practice.

Two years later, their work had begun to pay off. The district’s failure rates for its fourth graders had declined from 40% to 29% in reading and from 57% to 42% math. Proficiency rates for fourth graders had risen from 4% and 8% to 24 and 14% in reading and math, respectively. For high schoolers, failure rates in math had decreased from 75% to 66%, while failure rates in ELA remained basically unchanged. Superintendent Wagner and his leadership team knew that if the district was going to have success moving forward, effective instructional leadership at the school-site would be critical.

Despite the importance of principal leadership for the district, by the end of Dr. Wagner’s first contract, the district’s principal pipeline had become a major concern. MCSD suffered from a steady stream of school leaders leaving the principalship. MCSD had to replace 10-15 of the district’s 135 principals annually due to retirements, non-renewal of contracts, and resignations. The vacancies cut across elementary, middle and high schools with at least half of the vacancies in the district’s most needy schools. MCSD needed to fill the principal vacancies with candidates who shared the district’s definition of a principal’s role and had the necessary knowledge and disposition to lead the district’s schools. Dr. Wagner, frustrated with the overall quality of principal candidates the district received from local and regional universities, reached out to his head of school leadership, Diane Strong. Ms. Strong, though relatively new to the district, was widely viewed as very intelligent and strategic. Though never having been a principal, she had been brought in by Dr. Wagner to launch a school leadership institute,
which was receiving rave reviews. He called her into his office to discuss a new idea. Rather than try to persuade universities to change their programs, he wanted to compete with them. Ms. Strong explained,

We did not have a [principal] pipeline strategy and needed to get one. We started the same time as New York City Leadership Academy and [a successful national intermediary organization]. We engaged in a conversation with [the organization] about being one of their early sites. At the end of the day, we decided we [were] too small an organization to farm that out. We cared too much about making sure people were prepared to lead in [Mid-Central], in the context of the reform that we were driving. We didn't feel confident that given [the organization’s] model, which was to scale across cities, we didn't think we were going to get the customization that we wanted. At the end of the day, after considering some options, we had a chance to do this. This is actually an important pillar of the whole reform strategy, getting the school leaders that we need… We said, ‘We're pretty sure we can do this better. We got to get out there and try.’ It was absolutely a leap of faith.

STRUCTURE

The overall goal of MCSD’s aspiring principal program was to prepare future MCSD principals with the knowledge and disposition that would ensure their success as leaders of instructional improvement and improved student learning. One of the original faculty members of the program, Dr. Jill Alvarez, a local area professor, recalled there was “A real desire to develop leaders that wanted to lead in a new way.” To that end, they constructed a program that provided an intensive, year-long learning experience to shape a cadre of next generation principal leaders. The program included six (6) elements:

1) Mentoring from an effective school leader in the district. A diverse group of mentors were recruited from MCSD’s effective practice schools and other schools that demonstrated consistent improvement and strong implementation of the
district’s reform agenda. Mentors were paid and received training in effective mentoring.

2) A full-time fellowship in one of MCSD’s most effective schools alongside their principal mentor. The fellowship included opportunities to shadow their mentor principal and take on a significant school-based improvement project at the school. Embedded within the fellowship were program cornerstone projects that were spread throughout the school year and a culminating capstone project.

3) Mini-internships that complemented the primary year-long internship. Mini-internships allowed participants to shadow a principal beyond their mentors. These principals were identified leaders in particular areas (e.g., budgeting, maximizing human resources through scheduling, parent outreach, etc.).

4) Coursework one day a week that addressed the core instructional foci of the program aligned with the district’s school improvement methodology.

5) Weekly seminars focused on understanding the coursework curriculum in the context of the schools in which participants were interning. The seminars were devoted to reflecting on the practice of mentors, fellows’ experiences, and the inner workings of their respective schools.

6) A cohort of other program participants that served as a network of colleagues that
shared learnings and provided opportunities for collaboration, reflection, feedback and teamwork.

It was the hope of district administrators to develop principal candidates that would model a new definition of leadership, one in which leaders shared responsibility and power, recognized and took advantage of individual talents, and were willing to admit what he or she didn’t know.

Incentives

Ms. Strong knew she had to sell the program if it was going to be successful. That was the only way they could compete for the strongest candidates. The district knew that “urban school systems were not generally thought to be hotbeds of innovation. We had to prove ourselves that it was worth taking the risk.” Ms. Strong explained. This was particularly important if the district were to attract the diverse and talented pool of candidates it needed. With that perspective, MCSD embedded five (5) strong selling points in the program’s design:

1. A full time, paid fellowship for program participants. Each program participant received their regular salary and benefits.

2. An urban context to serve as an authentic, work-based learning environment, supported by an effective urban school leader.

3. A guarantee that successful completion of the program would result in principal
certification by the state (based on an agreement between MCSD and the State Department of Education).

4. An opportunity to earn a Masters in Education or a Certificate of Advanced Studies from a local state university upon successful completion of program requirements. As part of this partnership the university agreed to customize a program to the district’s reform agenda and allow district staff to co-teach courses with university faculty.

5. An explicit intent to hire the best six to eight graduates of the program each year to serve as school principals. Other graduates would be placed in school administrative positions (e.g. Assistant Principal, High School Small Learning Community Leader, Director of Instruction, etc.) for one or two years as a final step in preparing them for the principalship.

Overall, “…a very fundamental issue [that we had going for us] is [fellows were] going to get paid to do this. [They weren’t] going to have to make a ton of sacrifices that [they’d] have to if [they were] going to go to a hiring program. It allowed us to get different demographics.” Ms. Strong stated.

The Cohort Experience

Participants in the program had a diversity of experiences of the cohort model. Cohorts in MCSD’s program ranged from 8 to 11 individuals. Cohort members attended
classes together, worked collaboratively, and provided a set of thought partners for reflection and support. Overall, the cohort model provided a very positive experience for most participants. One program participant explained, “We actually were a very close knit cohort. We became very good friends and our friendships [have] remain[ed], beyond, years later. I mean that was almost 10 years ago and we’re all still connected to one another. Another participant stated, “We built a community, you know, we kind of clustered together ...we supported one another and because of that it helped me to understand as a leader the importance of collaboration.” Some program participants continued to turn to their cohort-mates after entering the principalship. One program participant explained that “Those of us who became principals right away after the residency, we leaned on each other as a cohort of new principals. So, it's a good support group after the fellowship was over too.” However, some participants had a less than positive experience in the cohort. One participant explained that in some instances group norms were violated and confidentiality was breeched. She went on to explain:

> What I did realize, the unfortunate part is that the cohort wasn’t as confidential as it needed to be...I was bringing in what I was learning from [my school] to the cohort to debrief it because it was disturbing. There were a lot of things at [my school] that were disturbing. There were a lot of things that needed change so I was trying to sift through it, but the cohort was hearing it and [the program director] was hearing it. I didn’t know that I needed to be political in that cohort. I thought the cohort [space] was just free and clear for me to just be able to talk. It wasn’t.

Another participant explained that tensions had developed within her cohort between a small subgroup of members, eventually requiring outside mediation to resolve. That same person explained that within the cohort she found a small subgroup she connected with. She went on to say:
That’s how we were able to manage the entire year so it was a group of I would say, four or five together, two or three sometime… Our [group] became very close. There were only two people, three people, I always say three or four. That team. You see the four of us in the district still.

**KNOWLEDGE BASE**

**Key Actors and Strategic Partners**

In Mid-Central School District a set of partnerships and relationships was leveraged to successfully implement several components of their aspiring principal program. When Dr. Wagner arrived, he reached out to local intermediary organizations to incubate, develop, and launch new initiatives. In time, he came to rely heavily on external partners. The creation and launch of their aspiring principal program would be no different. One partner, Dr. Douglas Hansbrough, a professor of education, was there at the program’s inception. Dr. Hansbrough recalled the first meeting of potential university partners:

I ran the Education Administration Program at [a local university]. I remember it well because it was the day before school break, Christmas break. The superintendent at that time, [Dr. Wagner], invited all the heads of the school leadership programs in the area to come to a meeting [at the district central office building]. I remember it well. He basically said ‘we need to really work on leadership preparation and we would like your help in that we haven't really found leadership prep programs all that helpful to us. We're interested in working with you to try to develop something that would better meet the needs of [Mid-Central] because I believe that principal leadership matters a lot.’

That initial meeting would lead to local universities contributing faculty to the program, one of which provided the avenue through which a Master’s degree could be obtained. These faculty members were strategically recruited for their areas of expertise, experience working with schools, and philosophical alignment with the district’s reform
agenda. They also served as the initial “think tank” that helped the district frame its program. Dr. Hansbrough explained:

Over a six month period, there were a series of meetings that were set up to see what it would look like to actually design a customized program. Initially there was a thought that we might allow people to take courses at different colleges ... like out of maybe those five universities that were participating … For a while we talked about how you might create a program and then compose it [of different courses at different colleges] like a [University A] course and a [University B] course and a [University C] course, to somehow put that together. That didn't exactly fly. But we did do some stuff about identifying what competencies were for principals' involvement, which ones we thought you would screen for, which ones you thought you could teach, which ones you thought you could develop through a practical experience.

Two to three of these area professors of education were enlisted to offer courses through the district as part of the program, apart from their respective universities. Areas of instruction included, but were not limited to, data-based decision making, change management, and managing oneself, as well as targeted training for mentors in effective mentoring. Their teaching was complemented by the teaching of central office leaders who taught a set of classes, and/or served as guest lecturers. A local non-profit, a district partner that had worked with the district to identify critical levers that produced the greatest gains in student learning, provided analytic expertise in the identification of effective schools. These schools would subsequently serve as sites for principal fellowships, and their principals would serve as principal mentors. Two national intermediary organizations provided instruction on resource management and instructional leadership, respectively. Exceptional MCSD school leaders who had demonstrated excellence that led to innovation and/or student success contributed to program curriculum development and course facilitation alongside central office staff and university faculty. The above work was managed and overseen by Ms. Strong, who
served as the program’s full-time program director. Ms. Strong was later joined by a full-
time program coordinator. Collectively, this set of key district actors and strategic partners served as the source of the program’s knowledge base.

Conceptual Foundation

The work of MCSD to create its aspiring principal program was nested within a larger effort to develop and nurture a vibrant principal pipeline. This collection of efforts generally, and the aspiring principal program specifically, were anchored by a set of core beliefs/values and assertions about what effective principals need to know and be able to do to successfully lead urban schools that maximize student achievement. These beliefs and assertions were expressed in a set of ten leadership domains that the district held up:

1. Understanding and Managing Self
2. Resilience
3. School Culture and Climate
4. Learning and Teaching
5. Supervision and Evaluation
6. Data
7. Professional Development
8. Shared Leadership
9. Resources
10. Family and Community Engagement

These ten domains outlined forty-two (42) corresponding indicators of principal
leadership and aligned with eleven (11) competencies of effective principals that the district also adopted. The eleven competencies stated that effective principals:

1. Understand how children and adults learn.

2. Analyze instruction and student learning through regular classroom observations and provide detailed feedback to teachers that supports instructional improvement.

3. Use data to measure student learning and instructional improvement and to drive planning.

4. Create a school community devoted to social justice, high expectations for all, and equity in students’ opportunities to learn.

5. Understand the achievement gap and implement explicit strategies to close the gap.

6. Develop and communicate a shared vision and common understanding of effective classroom instruction, which serves as the organizing principle for the school.
7. Create a collegial environment in which leadership is shared, professional practice is made public, risk-taking and innovation are supported, and consistent, high-quality instruction is paramount.

8. Understand the needs and assets students, parents and the community bring to schools and build strong relationships with all constituents.

9. Use the school budget, human resource functions, and other resources strategically to support improved student learning.

10. Develop and maintain a safe and disciplined learning environment and manage building operations in support of student learning.

11. Reflect on practice and continually refine leadership based on learning and experience.

These competencies and domains were formed in collaboration between local universities and the district. The work was propelled forward by the involvement of principals. Dr. Hansbrough explained:

There was a series of meetings that brought together people from the university partners. We were talking about, as I mentioned, different ways of thinking about this …. My recollection is actually the conversation deepened and got much more focused when we added like 5 or 6 principals who were leaders in the district, it became more of a collaborative conversation, not just university folks. It was out of that [collaborative work] that a set of competencies were developed.
Courses

MCSD’s program offered a required course for each domain, and those courses varied in length and approach. The courses were taught by university professors and intermediary organizations. The district’s view was, “Why should we try to duplicate what is already out there,” Dr. Alvarez explained. “The expectation was that when we constructed our courses that we [as instructors] would be responsive to the [domains and competencies]…[the district administrators] weren’t playing with those. Things had to align.” Dr. Alvarez’s class on family and community engagement, one of the program’s few year-long courses, is an example of one of the program’s courses. It provided an opportunity for program participants to immerse themselves in the work of engaging parents through its course cornerstone project. Project components included:

- **School Site Council and School Parent Council Participation:** By serving on the School Site Council and School Parent Council, it is intended for fellows to observe how your respective schools engage families and the larger school community in the work of the school and decision-making. Participation on these councils should occur throughout the school year, allowing an opportunity to observe how the councils are involved in planning, programming, funding raising, and evaluation. Fellows’ work on the councils is expected to inform and often intersect with work done on action-research projects in family and community engagement.
**Family and Community Engagement Action Research:** Using an action-research approach, Fellows are asked to explore the issues of family and community engagement in their residency schools and develop and implement action plans to increase and focus that engagement.

The various components of the action research project were taught throughout the course and broken down into five individual assignments that collectively accounted for 100% of the course grade. Another example of a course offered was a year-long course on using data. The course syllabus stated that Fellows would learn to use data to make decisions about teaching and learning in their schools. By the end of the year, they would be able to identify multiple forms of data, collect and analyze data, identify root causes of a problem, make an action plan addressing a problem, assess implementation and effectiveness of an action plan, and employ a variety of tools and processes to help themselves and their schools use data to improve teaching and learning. The primary vehicle for Fellows’ data learning was a school improvement plan cornerstone project. In consultation with their schools, Fellows were asked to choose a school improvement plan priority as a focus for the year. The overall project counted for 60% of a student’s grade.

The Fellowship

The fellowship and principal mentoring served as complements to courses. The belief of program administrators was that “[aspiring principals] have to be in schools to try to do this work…they can’t [just] talk about stuff they’re not experiencing.” The program paid a lot of attention to the mentor-protégé match, working to create an
individualized learning experience based on the needs and assets of the aspiring principal. One aspiring principal described the match with her mentor principal in glowing terms:

[The match between principal mentor and aspiring principal was a mix of] what I want[ed] and what I was expecting to gain from my experience, and what the mentor was looking for. [My principal mentor] was looking for somebody that she wasn’t going to be taking care of all the time. I was looking for a mentor that was going to give me the chance and opportunity to just start working and be able to explore opportunities to manage programs or to talk to people and to be able to do evaluations...It was a perfect match because it was very hands on.

Program participants were consistently placed with a person or in a setting that would be outside of his or her comfort zone to expose them to a different context, leadership style, or way of thinking. Elementary teachers were often placed in middle or high schools. Program participants from more affluent schools were placed in schools with higher concentrations of poverty. Candidates from smaller schools were often placed in larger schools. Candidates with more facilitative leadership styles were placed with mentors that were more direct or “traditional” in their leadership approach. In some instances this intentional coupling made for powerful, and sometimes quite challenging learning conditions. One program participant reflected: “The conversations we had were so challenging…It couldn’t have been a better experience.”

During the fellowship, aspiring principals were given various tasks and long-term responsibilities in their respective buildings. The fellowship was intended to serve as an opportunity for aspiring principals to develop their leadership voices, acquire tangible skills, and try on different leadership styles or approaches. One aspiring principal
working in a high school described an opportunity to work alongside assistant principals to learn different aspects of running a building:

I spent time with each [assistant principal] every two weeks…I created [a calendar] of what [I was] going to be learning from all of them. What I did was an inventory of personalities and strengths to learn about their positions and how they functioned…One of them was excellent with facilities, with managing the building, security and everything so I spent some time with him, shadowing him. [I asked him] to find me some projects and that’s how I learned a lot about communicating with school police, safety protocols, contingency plans, pipeline, how to talk to a custodian. Then the other one was more academics.

One program participant explained, “I was allowed to try things and make mistakes on the job…[in the end] I was just a fellow.” Any mistake that was made could be explained away by that. It was a freedom the participant characterized as liberating his learning experience.

**Great Lakes School District**

The Great Lakes School District (GLSD) is an urban school district in the United States. At the time of its aspiring principal program’s inception, GLSD served 137,180 students Pre-K-12 in 172 schools, led by 172 principals. GLSD’s students were a majority Black and White, 42% and 34% respectively, with an additional 16% Hispanic, and 5% Asian. Forty-eight percent (48%) of students were eligible for free or reduced-price meals. Eleven percent (11%) of GLSD students had special learning needs. Thirteen percent (13%) were Limited English Proficient (LEP) students. Sixty-seven percent (67%) of third through eighth grade students scored proficient on the Reading portion of their state’s end-of-year exam. In Math the proficiency rate for 3-8 graders was 79%. In high school, proficiency rates on end-of-year state exams varied. Seventy-seven (77%) of high school students scored proficient in English, and 75% of students
scored proficient in Algebra I. In science, proficiency rates ranged from 61% in Physical Science to 87% in Physics. Sixty-six percent (66%) of ninth graders graduated high school in four years.

The superintendent at the time was Dr. Sylvia Johnson. Dr. Johnson had recently taken over the helm of the sprawling school district after two stints as superintendent for smaller districts. It was early in her tenure and she was speaking with her direct reports to learn about their work. Among those she would most rely on was Ms. Darlene McCampbell. Ms. McCampbell was a GLSD lifer. She had grown up professionally in the system serving as a teacher, principal, district administrator, and now served as the district’s Chief Academic Officer. Ms. McCampbell, thinking back on the beginning, remembered how things got started,

I had been working in [the district] with a laser-like focus on the high schools for probably a decade. In one of my first one-on-one meetings with the superintendent I said to [her], ‘You know, we’ve got some of the weakest leadership in our Title I schools.’ At the time we didn’t have any high schools that were Title I, so I hadn’t really been focused on [them] because we had plenty of work to do in the high schools. Then, all of a sudden, I had a K-12 look at the district. As I finished my explanation [she] looked and me and said, ‘Well, fix it.’ So it began. Ms. McCampbell explains,

That was the birth of [our principal pipeline work], which [resulted is us deploying] 27 [highly effective] principals [at] our lowest performing schools, but I knew that running on a parallel track would need to be a robust principal pipeline program in order to back fill positions. If we were taking our rock star principals out of high performing schools, we had to be able to back fill those vacancies with talent, and I knew that we needed to shore up our principal pipeline... that was really the impetus. I invited all of the higher ed. partners to the table. We actually had a grant to work on [the first phase of the work] together. We did not receive [second phase funding], so I then asked those higher ed. partners who would be interested in trying to do the work absent a grant to help fund it? Out of those at the table, [Cobalt State] University emerged as somebody keenly interested in trying to figure out how we could do what we were trying to do without those grant dollars. So that was really the birth of the [Future Principals] Program.
STRUCTURE

The goal of GLSD’s aspiring principal program was to develop school-based and central office staff for the principalship. Key elements of this 2-year district-university co-developed program were:

1. Coursework one day a week that addressed the core instructional foci of the program aligned with the district’s school improvement methodology.

2. Three internships (clinical experiences) that complemented coursework to provide real opportunities to learn about the principal’s job. Internships included activities and capstone projects to guide the learning experience, as well as an opportunity for participants to shadow multiple principals to see their daily work firsthand.

3. Mentoring from the principal of the intern’s host school.

4. A cohort of program participants that would serve as a network of colleagues to share learnings with and provide opportunities for collaboration, reflection, feedback and teamwork.

Incentives

GLSD created six (6) incentives to attract strong candidates to apply for the program:

1. A sense of exclusivity, perpetuated by a rigorous selection process (see below).
2. Partially-subsidized courses, which greatly reduced the out-of-pocket costs of the program for candidates.

3. Provision of a custom-designed program, co-developed and managed by the district that would specifically prepare and position candidates for success as a school leader in Great Lakes School District.

4. An inside track to the principalship based on the explicit intent to hire graduates of the program as school administrators.

5. A guarantee that successful completion of the program would result in principal certification.

6. An opportunity to earn a Masters in Education from Cobalt State while they maintained their salary in their current position.

As noted, a particularly enticing aspect of the program was its exclusivity. To apply for the program candidates had to be nominated by a school or central office leader. Each year approximately 85-100 candidates were nominated for the program, of which 45 were invited to apply. Nominees underwent a rigorous screening process that included a pre-test, an interview, an on demand writing assignment, a presentation, and an “in-basket” activity. Candidates were scored and ranked. Program participants described the nomination process and selectivity of the program as a key selling point that made the
program particularly attractive. One aspiring principal described the impact of these incentives on her decision to enter the program:

I won’t lie to you, the fact that somebody says I think you would be good for this program, that factor of somebody kind of tapping you…Even if the financial piece had been there but the tapping hadn’t happened, I don’t think I would have done it [entered the program]. I don’t know how much was a predetermined decision to say okay well I’m going to choose this program over another one. It was more somebody said I think you’d be good for this program, there’s a financial subsidy involved and it’s aligned to the work that you’re doing and that it’s being hosted, sponsored by the district.

The Cohort Experience

In GLSD, program participants were admitted as a cohort. The program annually admitted 24-25 aspiring principals for its two-year program. The group took the same sequence of courses together, did their fieldwork as a group at their respective schools, and often went on to become a powerful cadre for learning, support, and collegiality. Program participants described their cohorts “as very tight.” One program participant reflected:

A side effect of being in the cohort was that we were set up to continue to learn from and with one another. There’s not a meeting that we all go to and if we’re all in the room, it’s very interesting to watch how eventually we’ll gravitate towards one another and have a check in with each other and a constant push or a joke with each other.

Another program participant described the benefits of the cohort model like this:

I think the beauty of the cohort model certainly builds a level of comradery, trust and relationship that you wouldn't necessarily get just by attending a local university on your own. The forcing us to work together and know these other folks that were going through the program, it certainly has proven to be a huge benefit. The job of an administrator is certainly a lonely job, but coming into it with some strong relationships and networks that you had not only from the program itself but also some faces within the district that we could reach out to [was a benefit].
As designed, the cohort structure provided a key program component for participants that fostered collaboration, teamwork, and mutual support.

KNOWLEDGE BASE

Key Actors

Great Lakes School District and Cobalt State University, a local university, partnered to co-develop and manage the program. It was their collective teams that served as the knowledge base of the program. The university contributed two (2) program directors to oversee the day-to-day management of the program, including coordination of student placement, selection of program instructors, and nurturance of the district-university partnership. One of those was Gloria Hempsted. Ms. Hempsted, a retired principal, was recruited specifically to co-create and launch the program. She explains,

I've spent 30 years in education, public education. I've spent that 30 here in [Great Lakes]. I have been a principal and I have worked with principals. I know the difference between principals that are making positive changes in buildings and ones who are not. It's my legacy before I really retire to train and share what I know about the principalship with other people constantly looking at how to help them communicate with a new generation in a way that will make schools change and be successful.

Her co-director, Dr. Winston Murphy, was a 19-year superintendent and a former high school principal. Ms. Hempsted explains their complementary nature:

When [Dr. Murphy] came in to the faculty of [Cobalt State], he came in with a real specific focus on school law, personnel, budget, the leadership foundations that he wanted to make sure people got. He was coming at it from the superintendent side of what a superintendent was going to see in a new principal. I was coming at it from the principal's role and from the curriculum role because my other job here was Director of Curriculum and Instruction for [Great Lakes School District] for a period of time. I was more concerned about the instructional
leadership, the curriculum leadership, the leadership for special needs students and how we made the accommodations in classrooms, what does the principal need to do to promote student achievement across the board. The two of us came with different foci that really fit together into a total principalship.

Together, they were the primary instructors and program designers. The design of the program was also heavily informed by an advisory board of principals and superintendents from the region convened by the co-directors. This group was asked to look at the university’s previous principal preparation program’s curriculum and modify it based on what principals “really do.” This group continued to be convened as the program was launched. Ms. McCampbell served as GLSD’s primary representative to inform the design of the program, ensuring that the candidate selection criteria, instructional priorities, and program components aligned with district standards, priorities, and unique context. Central office staff served as guest lecturers for several courses creating the customization the district sought. Lastly, though not insignificantly, program participants themselves were contributors to the knowledge base. GLSD’s program included a strong cohort model in which participants were expected to attend classes and participate in group activities together. Because the cohort component of the program was so prominent in GLSD, they were considered as secondary or tertiary contributors to the knowledge base. Collectively, the combined expertise of GLSD (school-based and central office) staff, as well as university faculty and program administrators, served as the sources of knowledge that were relied upon to co-develop, manage, implement, and continuously improve the program.
Conceptual Foundation

The work of GLSD to create the Future Principals Program was part of a larger effort to develop a principal pipeline in the district. The various programs that constituted the principal pipeline were anchored by a set of core beliefs/values and assertions about what effective principals need to know to successfully lead a GLSD school. These beliefs and assertions were expressed in a set of seven (7) state standards for school administrators that the district acknowledged and embraced. They included:

1. Strategic Leadership
2. Instructional Leadership
3. Cultural Leadership
4. Human Resource Leadership
5. Managerial Leadership
6. External Development Leadership
7. Micro-Political Leadership

These seven standards and corresponding twenty (20) indicators of principal leadership guided the program’s instructional content. Additionally, the program was informed and guided by another set of standards, the Educational Leadership Constituent Council (ELCC) school building-level leadership preparation standards. The ELCC’s six leadership standards were as follows:

**Standard 1.0:** Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by
facilitating the development, articulation, implementation, and stewardship of a school or district vision of learning supported by the school community.

**Standard 2.0:** Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students promoting a positive school culture, providing an effective instructional program, applying best practice to student learning, and designing comprehensive professional growth plans for staff.

**Standard 3.0:** Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by managing the organization, operations, and resources in a way that promotes a safe, efficient, and effective learning environment.

**Standard 4.0:** Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by collaborating with families and other community members, responding to diverse community interests and needs, and mobilizing community resources.

**Standard 5.0:** Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by acting with integrity, fairly, and in an ethical manner.
Standard 6.0: Candidates who complete the program are educational leaders who have the knowledge and ability to promote the success of all students by understanding, responding to, and influencing the larger political, social, economic, legal, and cultural context.

These additional six standards were adopted with the explicit assumption that improving student achievement is the central responsibility of school leadership. It was accepted and asserted that the standards represented “the fundamental knowledge, skills, and practices intrinsic to building leadership that improve student learning.” They provided a focus on leading student learning, while also emphasizing that it is school leaders’ responsibility to “manage the ‘business’ of the school.”

Courses

The district’s approach to teaching/exposing aspiring principals to the above standards was based on the basic premise that learning for aspiring principals had to be experiential. Multiple participants stated that “[Program Directors] wanted everything [candidates] did to be very practical.” This belief produced a program that sought to emphasize what to do in the principalship, reinforced by hands-on opportunities to practice doing those things, complemented by participants’ on-going reflection on their learning. This was most prominently seen in the assignments program participants were asked to complete, particularly in their internship courses. Ms. Hempsted explained this approach:
We asked our advisory board to say what are the things that [principals] do every day?... They came up with probably … I guess, we had more than 300 different activities [of] things principals really do, and [we] have attached each one of those to a standard. Then from those standards, our students are to select the things that they want to do or want to learn and need to learn on an individual plan for their own learning, and then work with their principal to do those things.

Activities ranged in diversity from working closely with a beginning teacher to create lesson plans, to working with the building principal and financial secretary on the school’s financial plan/budget for the coming year, to analyzing first quarter absentee and tardy records and developing intervention strategies for improvement. Program participants were asked to complete 50 – 60 activities over a 12 month period during their program internships. A reflection form had to be completed after each activity. The form requested:

- A description of the activity;
- An explanation of the ELCC standard addressed in the task;
- The learning that resulted from the work accomplished;
- What they will do differently next time; and
- The estimated time spent on the activity.

The activities touched each ELCC standard, and served as a complement to work done in courses. Course offerings during the two-year program included: Educational Foundations, Advanced Educational Psychology, Educational Leadership, Techniques of Supervision, Curriculum Leadership in Schools, School Law, Educational Research, School Personnel Development, Leadership for Students with Special Needs, Fiscal and
Business Management, The Principalship, Internship I, Internship II, and Internship III.\textsuperscript{4} Frequently, problem-based pedagogy was utilized within the courses. This included analysis and discussion of case studies, analysis of field-based problems, simulations, and role plays. This approach offered opportunities for program participants to grapple with issues, give and receive feedback, and practice their leadership skills. Some courses required more extensive projects For example, one course required the review of a dataset for a Title I school accompanied by an opportunity to speak with the school’s leadership team. Program participants were asked to work in teams to determine the school’s needs and possible solutions, all while considering their own leadership strengths and weaknesses. After two weeks, a committee from the school interviewed each team about their assessment and corresponding action plans.

The Internship

The provision of school-based internships was a vital component of the program, providing the primary context for activity completion and hands-on learning. Each person in the program did a summer internship and a second multi-semester internship, which the program technically counted as two (fall and spring). The program paid a great deal of attention to the summer internship placement, working to create an individualized learning experience for each person. Ms. McCampbell described the thinking behind internship placements:

We were very intentional about the internship experience. We wanted one of those

\textsuperscript{4} Internship III was identical to internship two, both being served in the same school under identical conditions. Within the university the internship was broken into two semester-long courses as opposed to a year-long course. The internship was described as a single internship by program participants and GLSD staff, but as two by university staff.
internship experiences to be as different from the set of experiences the candidate brought to the table. For example, if we had a Pre-K teacher who entered the program, for her summer internship she was assigned to a high school. We wanted to put her completely out of her comfort zone in terms of stretching her set of experiences because we believe that would make for a stronger leader. [We wanted] to widen the perspective and view they would have of school from a Pre-K center to a high school or if they were in a Title I school, we might put them in a magnet school or suburban school or vice versa.

Principals selected had to have a track record of success that included student achievement and eliminating achievement gaps. In each instance the learning needs of participants was considered. Ms. McCampbell explains this approach:

If we have identified a gap in the candidate [that would inform our placement]. For example, if Frank Barnes was having difficulty with human relations, then we would seek a principal who had that strength for the summer experience to really shore them up or if Frank had worked in a school with a weaker instructional leader, then we were very intentional about picking someone for them to spend the summer with that was a strong instructional leader.

The second, multi-semester year-long internship, provided a more in-depth experience. However, Ms. McCampbell saw the placement of the second internship in the participant’s home school as a drawback:

The yearlong internship was in the school where [aspiring principals] were serving as an employee and I would say that’s one downside to the program. [In our program] participants are [GLSD] employees full time. They have a job and they’re assigned to a school. So, we work with whatever principal happens to be their principal. We don’t get to pay and pick the principals. So, I would say that is a downside to the internship experience, and so we try to balance that by hand picking the summer principal that the candidate works with… We have a requirement that the host principals for the yearlong internship come to an orientation session which is a half-day that really outlines the expectations of the program, because many of our principals have come through a traditional preparation program and we wanted them to be very clear that this was not about checking off tasks.
Despite Mrs. McCampbell’s concerns, both internships were critical components of the program. The internships, and the accompanying activities assigned during the internships, attempted to help participants master certain skills. This was seen as a very different approach from traditional principal preparation programs. Traditional programs were seen as asking aspiring principals to exclusively observe events. Ms. Hempsted explained, “You know [traditional programs just ask candidates to] observe the open faculty meeting, attend the PTA meeting, attend the SLT meeting where it’s just check the box. [The Future Principals Program] was really about mastery and about demonstrated leadership of certain skills.”

Aspiring principals were given various activities – assignments – to complete during their internships that aligned with tasks principals are customarily asked to do. These activities were loosely scheduled to mirror the “task calendar” of a principal. For example, activities such as conducting teacher interviews as part of the hiring process were scheduled in the summer. The intention was to integrate the activities into the life of the school and the principalship. One aspiring principal explained:

Over the course of the internship you did 20, 40, 55 different internship activities some of which were on the easier side of things, but most of which were along those lines of lead an SLT through the creation of a vision and [take on] either the redefining or the creation of a vision and mission statement and then lead its impact in that building…I’ll be honest, I learned more through [those activities] and [they were] a direct application to my job…I learned so much from that type of work and honestly from messing it up like over and over and over again. I feel like that’s where my principal mentor was so gracious to me. He never, ever let me off the hook but he always helped me figure out how to fix it when it was a hot mess and that was not atypical. Especially, I mean you know if you’re truly engaging in the work then things are going to be a hot mess sometimes.
SUMMARY

Overall, both programs shared an emphasis on instructional leadership in which they sought to increase program participants’ capacity to shape a school’s culture and climate, use data to assess students’ learning needs, engage families and other external stakeholders, coach and evaluate teachers, and plan professional development. Additionally, both programs worked to develop the managerial acumen of program participants to manage the day-to-day responsibilities of leading a school so that teaching and learning can occur smoothly and uninhibited. Lastly, they strived to produce leaders who would work collaboratively and strategically to implement school improvement efforts that would lead to improved student achievement. While each aspiring principal program is unique, operating within its own distinct context, both possess program elements traditionally seen in principal preparation programs. Here I provide a brief summary of how each of these program elements were implemented across both districts. I will go into greater detail in my cross-case analysis in the next chapter.

Courses and Seminars

Each program emphasized problem-based learning to create opportunities for participants to grapple with issues, get exposed to core content, and reflect on their beliefs, values and professional practice. Both leveraged the use of case studies, simulations, and role plays to do this. Some case studies of schools involved the engagement of school staff, including site visits, and required supplemental data analysis activities. These learning opportunities allowed participants to investigate problems of practice and leadership challenges in their internship/fellowship sites, often in real time,
through the eyes of practicing leaders and their leadership teams. Both districts utilized central office staff and university instructors to teach program courses.

Internships and Fellowships

Both sites featured field-based experiences in the form of an internship or fellowship, creating opportunities for aspiring school leaders to grapple with and observe the day-to-day work of principals. MCSD created its program around a full-time fellowship at a single school site, placing aspiring leaders into schools different from their previous school. GLSD on the other hand offered three semester long part-time internships (summer, fall and spring) at multiple school sites, placing aspiring leaders in their existing school for their fall and spring experiences while they maintained their full-time teaching (or administrative) assignments. Both programs exposed participants to various aspects of instructional leadership and school operations, seeking to integrate theory and practice. Participants undertook activities such as observing lessons, conferencing with teachers, facilitating school site council meetings with parents, helping develop educational programs and budgets, analyzing student performance data, and learning how to access district services. The internship/fellowship experience was done under the supervision, guidance and mentorship of the school’s principal, with the ongoing support of a full-time centralized program administrator.

Mentoring

Every aspiring principal received a mentor. Mentors were full-time, certified administrators, who were host principals of the schools in which candidates had an
internship or fellowship. In GLSD, candidates had the benefit of mentorship from a second principal during their summer internship. Mentors across programs were primarily asked to provide on-site coaching and feedback, modeling of principal practice, and a safe place for questioning, reflection, observation and experimentation with emerging leadership practice. The structure of MCSD’s full-time fellowship, and GLSD’s year-long (fall and spring) internship(s), created the conditions for mentors and aspiring principals (protégés) to develop relationships that facilitated learning, reflection, coaching, and professional growth.

Work in Networks – Cohorts

The grouping of program participants into a cohort upon acceptance into the program was done by both districts. The GLSD program supported cohorts of 24-25 aspiring principals a year, while MCSD’s program supported 8-11 annually. Both programs chose to create cohorts to provide participants with the type of collaborative learning experiences that leaders would be eventually expected to cultivate in their respective schools. GLSD participants identified their cohort membership as an important facet of their experience in the program. It was cited as providing a supportive network for working through coursework and the internship, and in some instances, completing the program successfully. Several GLSD program participants indicated that upon completion of the program, cohort connections provided an invaluable professional network that they still lean upon today. In MCSD the cohort was mentioned as both a source of support and a source of tension. Some respondents described problems within the cohort, from conflicts to breeches of confidentiality. In one instance these issues led
to a need for outside mediation. Nevertheless, strong bonds were formed within cohorts in MCSD, and some of those bonds remain strong till this day.

In all, both case descriptions serve as illustrations of how the elements of district-led aspiring principal programs are operationalized. In the next chapter I will examine if or how the implementation of these elements address or conform to the problems confronting traditional university-led aspiring principal programs. Specifically, is there a strong knowledge base in the programs? Do these knowledge bases resolve issues of causal ambiguity? To what extent do the learning opportunities offered through the aforementioned program elements reflect actual practice? Through this multiple-case analysis I will surface what the data reveals regarding these pertinent questions.
CHAPTER 5: FINDINGS

The objective of this research study is to determine the extent to which district-led aspiring principal programs overcome the problems that beset traditional university-led programs. Specifically, do district-led programs have a clear knowledge base, and do they overcome the problems of causal ambiguity and reliance on canonical practice? I pose these questions based on the assumption that knowledge management is a suitable analytic lens through which to analyze principal preparation. I frame the findings presented through this lens.

Before I proceed, it is important to restate some key terms. As stated prior, three key sets of knowledge within an organization are its collective know-what, know-how, and know-why. These three types of technical knowledge are also referred to as declarative knowledge, procedural knowledge, and causal knowledge. These sets of

Figure 1 – Knowledge Base
technical knowledge, complemented by the insights, values, and mental models of an
organization’s personnel, are its knowledge base (see figure 1). One manifestation of a
weak knowledge base is causal ambiguity – a lack of clarity about which parts of a
particular practice are responsible for effective or ineffective performance (Lippman and
Rumelt, 1982). This absence of “know-why,” or causal knowledge, hinders a learner
from moving from novice to expert, for they lack awareness of the fundamentals to apply
their descriptive or procedural knowledge in a different context effectively to produce the
outcome desired.

Also discussed previously was the term canonical practice. Canonical practice is
simply espoused practice (Brown and Duguid, 1991). They are what is asserted to occur
within a narrowly specified set of parameters that are presumed to be present in each
instance in which a set of practices are to be utilized. These assumptions reflect ideal or
desired conditions, but do not represent the variety of contexts that are encountered.
Within such varied settings improvisations take place to enable success, thus producing a
set of practices that move beyond the canonical, and reflect what people actually do.
These actualities are said to represent the “realities of practice.”

In this chapter, I analyze data from my two case sites to answer the above
questions, drawing on evidence from each of the cases. In each section I provide
examples from each case to illustrate the finding. In some instances, I delve more deeply
into a single case to further explain the finding that has been derived.

**Program Knowledge Bases**

Data revealed that both programs had clear discernable knowledge bases that
possessed specific leadership standards reflecting technical and non-technical knowledge (see case descriptions and Appendices B and C). In this section I seek to examine the qualities and characteristics of each site’s respective knowledge base, outlining the beliefs and mental models embedded in the programs as reflected in program foci. I analyze the declarative knowledge, procedural knowledge and causal knowledge found in both programs, paying particular attention to the area of causal knowledge to determine if the problem of causal ambiguity has been resolved. Lastly, I outline apparent knowledge gaps that were particularly salient.

Emphasis on Instructional and Community Leadership

The Mid-Central School District placed an emphasis on developing instructional leaders when it launched its own aspiring principal program. This emphasis was an expression of a belief that principals could no longer be only or primarily managerial leaders, but had to be instructional leaders also. This belief represented a substantial shift for the district. Historically, the district’s principals were allowed to be primarily managers of their buildings. Based on that long held mental model, Mid-Central hadn’t invested in the instructional expertise of sitting assistant principals who fed their principal pipeline. The result was a set of principal candidates poised to take on the traditional – managerial – role of principal, but ill-prepared for instructional leadership. Allison Catchings, assistant director of the program, recalled:

Sitting APs were doing more discipline and operations…. I don’t want to say [they were] pigeonholed, but people use that word a lot. That they were pigeonholed into discipline and operations because of the limited structure of support in the school... When it came time for them to interview to become an instructional leader, they didn’t have [the skillset needed].
The preparation they received from area college and university principal training programs proved insufficient for the task of instructional leadership. As stated, the district had adopted a reform plan that relied on four tenets:

- Setting clear expectations for what students should learn in core content areas.
- Establishing a curriculum that gave students and teachers access to rigorous content.
- Creating expectations about instructional practices through the adoption of a district-wide pedagogical approach.
- Providing extensive support for teachers through a coherent professional development strategy designed to help them improve their instructional practice.

The adoption of this reform strategy forced a shift in central office leaders’ views of the principalship. MCSD needed to move in a different direction to recruit and develop principals that could lead the district’s new reform plan. Ms. Strong reflected,

[The program] was definitely tailored to [Mid-Central’s] reforms. Folks were learning under the broad umbrella, instructional leadership. They were learning about readers and writers workshop. They were learning about the curriculum that the district was using and what they needed to know as principals to support their teachers. Observing classrooms thoughtfully and being able to give meaningful feedback.

This increased emphasis was reflected in the program’s leadership domains and core competencies (see case descriptions).

As the program evolved, four focus areas emerged from the various domains and competencies. The district actively acknowledged three of them, referring to them as instructional leadership, community leadership, and system management. The fourth, personal leadership, also emerged from the data, but wasn’t explicitly called out.
Instructional leadership focused on understanding how students learn and what “a diverse student population” needs in order to close the achievement gap. It emphasized the analysis of student achievement data to gauge trends and patterns to assess school progress and determine instructional priorities. It included the learning and development of faculty, staff, and oneself. Community leadership focused on the ability to develop strong social relationships to work effectively with staff, families and the larger community. It called for an assets-based approach to leading a school, asking leaders to understand and be sensitive to the assets and needs students and families bring. It required the ability to both communicate a vision and a set of priorities, as well as the skill to mobilize people around them. Systems management emphasized the managerial side of the principalship: developing and maintaining a safe and disciplined learning environment, understanding the strategic use of resources — time, people, money — and management of building operations including facilities, transportation, food services, and student support services. Personal leadership emphasized the importance of leading with integrity, exhibiting self-control, self-awareness, and consistently reflecting to sustain personal and professional growth. It called for the ability to handle disappointments constructively, a willingness to admit error, and the need to respond to disagreements and dissent respectfully. It required principals to acknowledge the need to manage time effectively and make time for self-renewal.

The ten domains of leadership (and their corresponding eleven competencies) fell under each of the focus areas (see Table 2). Learning and teaching, data, and professional development fell under instructional leadership. Shared leadership and family and community engagement aligned with community leadership. Supervision and
evaluation, school culture and climate, and resources aligned with systems management. Understanding and managing self, and resilience aligned with personal leadership. From the competencies, competencies 1, 3, and 5 emphasized instructional leadership. Competency 8 fell under community leadership, with competency 7 straddling both instructional and community leadership. Competencies 4, 6, 9, and 10 were part of systems management. Competency 2 fell underneath instructional leadership and systems management. Competency 11 aligned with personal leadership. Though all 10 domains and 11 competencies were covered and viewed as important, they were not treated equally. Four areas (and their corresponding competencies) were emphasized in the program: data, shared leadership, family and community engagement, and resources (see Table 2). This program emphasis was evident in cornerstone assignments, the duration of courses (year-long as opposed to semester long) and the topics of weekly seminars that complemented program courses.

Table 2 – Domain, Competency, and Program Focus Alignment

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<th>Instructional Leadership</th>
<th>Community Leadership</th>
<th>Systems Management</th>
<th>Personal Leadership</th>
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<td>Learning and Teaching</td>
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<td>Understanding and Managing Self</td>
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* - Seen as most essential among the domains and competencies

Overall, program administrators were attempting to shift the paradigm of
principal leadership in the district. Although there was evidence of an increased emphasis on instructional leadership, an equal or greater emphasis was placed on community leadership. Ms. Strong reflected,

It was a very interesting opportunity and challenge to give [aspiring principals] exposure to the kind of leadership that we wanted them to take on, which was instructive leadership, but also facilitative leadership, an orientation towards building communities of practice, and distributing leadership. We did a lot of the Heifitz work around technical and adaptive change as a way to help them think about this just isn't about implementing X. It's about understanding that cultural change is going to need to happen to ensure your success in implementing X. It's about much more adaptive issues and trying to help them think about that.

One program participant recalled this focus on community leadership, “We spent a lot of time discussing how do you work with people, how do you lead people, how do you shift people’s thinking, how do you do the deep adaptive work.” This focus, though not always explicit, was evident to participants. One program participant explained:

I remember [Ms. Strong] at the time, I remember her saying to us, pushing on me in the class one day as she said, ‘We’re not doing it just the regular way, in the traditional way, the way that it’s always been done. We’re looking for people who are going to be able to look at things outside the box,’ and in all honesty, I really didn’t know what she was talking about until I got out of the program… They were trying to change our mindset around how to do, how to lead. They were working on it. I didn’t actually come to realize it until after I actually finished and [became a principal].

Though there was a focus on instructional leadership in MCSD, how to lead grew in importance as well.

In Great Lakes School District this same sort of shift in mental models was taking place, placing greater importance on instructional and community leadership. Ms. Hempsted’s charge, as one of the program’s co-creators, was to craft a program that would prepare a new generation of school leaders. Leaders not trying to fit into an old mold of the principalship, but ones prepared for a new educational frontier. She
explained,

[We’re] not trying to teach [program participants] how we [as former principals] used to do it. [We were] trying to show [aspiring principals] how [they] could be doing it better…how [they] can adjust and change [their practice] in the future as schools continue to change.

This shift was communicated and understood by program participants. Dr. Johnson had been explicit about this aim and communicated it throughout the district, particularly to aspiring principals in the program. One program graduate summarized the purpose of the program in this way:

[The] whole premise of [the program was] to tap our talented, our most talented individuals, to help lead our schools at a time when the district recognized that we were going to have some folks retiring [we had] some things that need[ed] to change. There needed to be that cultural change in the principalship in terms of an instructional leader or folks that were just willing to kind of break the traditional mold of being the building principal.

This purpose was evident. However, just as in MCSD, Great Lakes’ emphasis on instructional leadership was accompanied by an emphasis on community or shared leadership. One former participant indicated as such, stating that the focus on the program was on:

Being an instructional leader. That was a huge shift to me when I look at my generations of principals. Just the focus on instructional leadership. Making sure that you stay abreast of the research and what’s happening in your building when it comes to teaching and learning at all times. That was a huge focus. Looking at the data, and politically being able to maneuver in the school system and in the community you’re in. I mean I felt like there was a huge emphasis put on all of those aspects and those are some of the takeaways. Just keeping that morale and culture building going in your school, and within the community you’re in, building that trust, to be able to again drive student achievement, doing what’s best for kids.

This focus was reflected in the Educational Leadership Constituent Council (ELCC) school leader preparation standards and the state’s leadership competencies. Both sets of
standards reflected program creators’ shared belief that improving student achievement is the central responsibility of school leadership as well as bringing a community along with you. As the ELCC standards were integrated with the state’s leadership standards, this shared emphasis on instructional and community leadership could be seen. The state’s first three standards – strategic leadership, instructional leadership, and cultural leadership – stressed the importance of these elements, as did the first two ELCC standards (see Appendix C). All of the standards were addressed in varying levels of depth in the program’s courses, internships and activities. The areas of instructional and community leadership received added emphasis.

Ambiguity Unresolved

In Great Lakes, administrators worked intentionally to expose aspiring principals to various types of technical knowledge, focusing primarily on declarative and procedural knowledge. Ms. Hempsted co-designed the program to allow for opportunities to “get [their] hands dirty” in the work of the principalship. Their approach was to offer courses that collectively provided both theory and practical information. “[The design team] knew that we wanted everything we did to be very practical,” Ms Hempsted reflected. Throughout the program there were some 60-70 activities or tasks that were integrated into courses, primarily the internship courses, which outlined discrete tasks that aligned with the district’s vision of principal leadership. Each task became a kind of knowledge object, seeking to codify a distinct piece of knowledge that would be embedded in participants’ internship experience. One of the first tasks on this expansive menu was to participate in a review of the master schedule. Another was to review teacher evaluation
scores/files to determine areas of need and possible improvement activities. Both practical, hands on tasks. Ms. Hempsted recalled the design team’s early meetings with the advisory board, the initial creators (generators) of these tasks,

[We initially thought], ‘that's a big list [of activities,’ over 300 at first before the list was pared down]. At the same time, a lot of [the activities] came from using data to drive our decisions. We looked at the course work that we were teaching and the internship activities, and we said, ‘where are we asking our students to do those things?’ There are places where we want them to look at a students’ data. There are places we want them to look at their budgets and how money is being spent. There are other places where we want them to look at student achievement data. There are other places where we're wanting them to look at demographic data. There are other places where we want them to go in and look at the resources in the school, and see what kind of resources there are that they could tap into.

The activities served as a form of guide to the principalship, providing program participants with a declarative view of the everyday work they would need to execute as principals of their own schools. It also served as a pedagogical approach. Ms. Hempsted explained,

How would you teach somebody to be a good supervisor or a good evaluator of instruction? The only way I know to do it is to take them through the process one step at a time and practice it. That's what we do. [We teach them every step of the process in class]. After we do those things in class, the very next week, they're doing it within their school. One week, they do two walkthroughs. The next week, they do two more walkthroughs and a preconference. The next week, they do a formal observation. The next week, they analyze that formal observation. The next week, they do the post-conference. Their assignments in the classes are actually doing what a principal should know and be able to do.

Despite opportunities for experiential learning in both sites, efforts to foster causal knowledge were idiosyncratic, emerging from the individual and sporadic efforts of mentor principals. As stated above, GLSD went to great lengths to offer practical, experiential learning opportunities for participants in their aspiring principal program. However, an analysis of the data did not surface a systematic bridge from procedural
knowledge to causal knowledge. For example, the program focused on teacher coaching and teacher hiring. Ms. Hempsted outlines the program’s approach to teaching participants about the latter,

In personnel, they have to write interview questions after [the instructor] talks about things you can and can't ask, and what are the kinds of questions that will give you different kinds of information about teachers. Then we have them role play in class different interviews. At the end of those, all of those are videotaped so that they then have to watch the interviews that they either conducted or were part of as the interviewee, and reflect on what went well and what did not go so well. We then bring them in to the university and ask them to do a mock interview with our student teachers who are going to be going out and looking for jobs. We ask them to serve on interview teams within the school during the internship... what we're trying to do is deliberately teach the skill of a leader in selecting, recruiting, and hiring good teachers. Then, we try to say, okay, we'll let you do it here in class. We'll role play it. We'll video. We'll do what we need to do for you to learn. Then, get out there and practice it under guidance. Then, go out there and do it in the real world.

This is a good example of an opportunity to acquire procedural knowledge of how to conduct teacher interviews. Teachers were given a chance to reflect on their practice after watching themselves. Unfortunately, the tacit dimension of the work was not touched or tapped through these activities. The experiences are practical and helpful, and several aspects of professional practice are made explicit. Even with these ardent efforts, causal knowledge – the identification of particular parts of a practice that make it effective or ineffective – wasn’t provided or teased out from the experiences.

However, within GLSD there was data that revealed that the internship experience created opportunities for the sharing of causal knowledge. It was in these spaces – the interaction between mentor and protégé – aspiring principals had perhaps their most intimate look into the principalship. By working alongside sitting principals, aspiring principals had opportunities to peer over their shoulders and observe a principal in action. Likewise, principal mentors could invite their protégés into their thinking, creating access
to their tacit knowledge that would otherwise be left hidden. One principal mentor described this type of learning opportunity as she prepared for a difficult conversation with a teacher:

Before we [went] into the difficult conversation I would say ‘okay, this meeting that I’m going to have is going to be a difficult meeting. Here’s what I’m thinking that needs to be my strategy, here’s what I’m hoping the outcome is going to be. This is what I know she might hear, she might say or might do. Here’s what I think I might say or might do to counteract that.’ Just being real intentional about not just what we need to come out of the meeting, [but also focusing on what] else is happening in that room [and what we need to do] that gets [us to that desired end].

We see here an act of knowledge codification, where a mentor principal made an intentional effort to codify causal knowledge. No other respondent or artifact provided evidence of this type of practice or exchange in GLSD. Though we have evidence that this practice was actualized in Great Lakes, we also see that it was neither consistently nor systematically executed.

Mid-Central also struggled with creating access to causal knowledge. In several cases aspiring principals were provided with declarative knowledge through coursework, and the field experience provided opportunities to develop and acquire procedural knowledge through daily practice. Program participants had a project at their school they were asked to lead as part of the fellow experience. Many participants reported having multiple leadership responsibilities during their fellowship. In many instances these opportunities were acts of knowledge generation, where aspiring principals “discovered” how to do something through trial and error independently. Knowledge generation was preferred to knowledge transfer, for most mentor principals had insufficiently codified their professional practice to transfer it, and most protégés lacked a strong enough
schema to know it when they saw it (breakdown the component parts) in order to absorb it.

Data revealed that efforts to foster causal knowledge were seldom and sporadic. Initially, MCSD focused on the what and the how of principal leadership. As the program evolved, greater attention was placed on those essential components that made a practice effective or ineffective. Ms. Strong had hoped that principal mentors would emphasize causal knowledge at the onset, but found that this was not the case. Indeed, respondents did not report this as a practice that occurred with any type of regularity. Much if not most of this causal ambiguity was attributed to a lack of principal self-awareness about what they did and how they did it, in addition to a lack of comfort and skill in talking about their practice. For some, “they were much stronger at ‘doing’ than reflecting,” she recalled. In reflection, she went on to explain,

We can say someone is an amazing teacher, but they can't explain what they do. You just get to watch them, but you [aren’t] able to figure out what they did because that's not their skillset, to metacognate about their behaviors. Same thing with principals, no different. So it was this interesting thing the first year or two. We really learned a lot about that. We learned that [a particular person] is an amazing principal, but we had no way to know [if they could explain their practice]. It wasn't until we asked them to do this thing that we learned some things about this. So we were like, ok. [We have some] amazing principals and they are at different places in their ability to talk about their practice, to explain what they're doing, why they're doing it, what they think is going to come of it, in ways that young aspiring administrators can wrap their heads around it and have it inform their own thinking… then there were some people who are do it as I say. ‘Do what I do because I’m successful at this,’ as opposed to: ‘Here's how I see it and here's why I [do what I do]. Here's my style. What is your style? What are you taking from watching me? And the moves I make and the strategic decisions I make? What sense are you making of this? What are some big ideas you are taking from this? And then, what are you learning about your own leadership style and how are you going to put those two things together?’ I guess that’s a very different form of mentoring and coaching than ‘this is how I do it.’ It's a technical issue, yes. ‘Yes, this is how you do it.’ That's great. But for the more adaptive dilemmas though, you have to help these guys, the new folks, figure out: How are you going to do it? What are you figuring out are some of the critical principles of doing this
effectively based on observing me and other people you are seeing? This deal is about building their capacity. It’s the teaching them to fish versus giving them the fish.

In acknowledgement of this challenge during the period being studied, the program in later years intensified its focus on mentor principals’ knowledge codification skills, convening monthly two-hour meetings with principal mentors to help them continuously improve their coaching and ability to be more reflective practitioners. Additionally, mentors and protégés were convened together three times a year with a pair of university professors to strengthen the transfer relationship between the two. The view of program leadership was that “mentoring doesn’t happen by happenstance,” thus transfer relationships between mentors and protégés required investment and cultivation.

Learning through mentoring requires work, and “[it] is what you make of it,” Ms. Strong asserted. The program also began asking participants to write weekly reflective essays to foster greater awareness about what they were seeing – schemas – to accelerate their learning. Program administrators also began providing “look fors” to guide observations of expected school experiences (e.g., rubrics for staff meetings, instructional leadership meetings, budget planning sessions, etc.). One program participant, now a principal for some time, explained how her mentor principal worked to give her deeper insight to his practice and thinking.

In the school I was in there was a teacher that was struggling. My mentor principal was trying to figure out, he was getting informal feedback from teachers in the building that this other teacher really wasn't being as effective... During looking at student work, this person wasn't participating. My mentor had a conversation with me, around, ‘what I would really like to do is just like blast it, get it done, and tell this guy, get it together. However, that is not going to be an effective method for this particular person or in general.’ He said to me, ‘This is what I am going to do.’ He was very strategic about saying, ‘These are the steps that I am going to take. I need to change how this person, this teacher, thinks
about his role, not only in his classroom, but how it's affecting his colleagues in the community. I am going to do it in a group, by asking pointed questions. Then I am going to have an individual conversation.' Throughout that whole process, my mentor walked me through what he was going to do, how he was going to do it, when he was going to do it. I got this idea of, you've got to hold on, you've got to hold steady in knowing that you want to be able to respond because your teachers are struggling with this colleague, and you are the administrator. You know what to do, you have to change what's happening. But how do you change it, and when do you turn the heat up just a little bit? When do you just make it hot as hell, and then you turn it back down? And it's this dance. For me, that was at my site, through my mentor, through building a trusting relationship, but also knowing that I needed to be able to have these difficult conversations, and my mentor brought me in to see them.

This example is an instance of MCSD’s success in creating these types of exchanges.

Unfortunately, this incredible exchange appeared to be an isolated within the data. In those earlier years it was neither consistent nor systematic. Ms. Strong and her team knew they had to do more to cultivate knowledge codification and knowledge transfer of causal knowledge (which was deeply tacit) between mentors to protégés. This would be the next phase of their work.

In all, the data revealed that these district-led aspiring principal programs were based on defined knowledge bases of what principals should know and be able to do as principals. These programs were intentional about preparing aspiring principals to become instructional leaders and leading within a school community. The programs each created access to declarative knowledge as well as procedural knowledge, creating opportunities for program participants to learn experientially and reflect on their professional practice. Nevertheless, neither program was able to provide wide and consistent access to causal knowledge. There was clarity about what to do, but insufficient knowledge codification among mentor principals to enable their discernment or acknowledgment of the essential elements of their practice that made it effective or
ineffective. This absence of knowledge codification left many participants to pursue knowledge generation through experiential learning opportunities in their field experiences. A limited number of mentor principals had sufficiently codified their professional practice to transfer what they knew or help their protégé develop a schema to recognize tacit improvisations. In such instances participants reported being able to absorb the knowledge they were exposed to. Overall, these two district-led programs struggled with causal ambiguity just as traditional university-led programs have. In one case, Mid-Central, program administrators were aware of the problem and were working to make program improvements to address the issue. In Great Lakes, no evidence was found to indicate that this was a priority for the district, or an issue that program administrators were aware of.

Knowledge Gaps

In addition to the on-going challenge of causal ambiguity described above, the data revealed that each program had a knowledge gap in an area that their districts raised up as priorities. In Great Lakes, one of the leadership standards that the district embraced was micropolitical leadership. This is the capacity to build systems and relationships that leverage staff expertise and fosters school community buy-in. This requires effective interpersonal communication, emotional intelligence, environmental awareness, the ability to resolve or manage conflicts, and personal responsibility for performance.\(^5\) This domain of leadership, though more managerial than instructional, if fumbled or

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\(^5\) Taken from the state’s standards for school leadership. The specific reference is not cited here to maintain the anonymity of the site.
overlooked can derail the best instructional strategies and sour a school’s culture. It’s for this reason that the program prioritized this domain. Ms. Hempstead explains,

> We were told that a lot of times the reasons that our principals don't make it or they don't make good principals is because they don't have the innate personal skills to be able to connect and relate to other people in a way that the other person can hear them. That's when we have gone back and we said, “we need to talk about people smarts with them and we’ve got to go back and do some things on crucial conversations,” and we did a lot of role plays so that the principals we are training don't just go out and try to be the person in charge, the boss of everybody, but rather that they go out and they know how to lead. They know how to motivate people. They know how to help people see what needs to be done in a school, and then get on board with that vision for that school and help make things happen.

Still, even with this emphasis, it was in this area of micropolitical leadership that Great Lakes experienced a noticeable knowledge gap.

> The area of micropolitical leadership was covered in the program, but lacked depth in its coverage. Declarative knowledge, know-what, was provided to participants in GLSD’s program, but neither procedural nor causal knowledge was provided. One program graduate described her experience in this area,

> We hadn’t learned about [micropolitical leadership] really in our Masters, so when I think about the people in my cohort and who has been successful and who hasn’t, it’s the people who are lacking in the micropolitical piece. And how did we train for that? We had one course that involved the book Crucial Conversations where we did maybe one day or two days of role playing and that only dealt with role playing a principal-teacher conversation where the teacher wasn’t doing a good job… I still didn’t know enough about how to work with adults versus students in a leadership position and how to get an adult to do what they needed to do. [That’s a] totally different approach than with students… That to me is the hardest part.

Great Lakes prioritized this domain of leadership, but didn’t integrate it deeply into the curriculum. So though it was covered in a course, the depth of coverage left some participants wanting more support in this area or struggling in this area after entering the principalship.
In Mid-Central, they too had evidence of a knowledge gap. Instructional leadership was among the four leadership/instructional priorities found in the data for MCSD. Within this domain was the area of learning and teaching, which included an understanding of:

- Child and adult learning;
- Academic standards and student performance requirements;
- Learning needs of all students;
- Cultural competency;
- The achievement gap; and
- Research on standards, curriculum, instruction, and assessment.

Amongst these areas, the achievement gap took on a high level of importance, meriting mention as one of the district’s 11 competencies of effective principals – understand the achievement gap and implement explicit strategies to close the gap. However, there was little evidence in the data that Mid-Central provided much in the way of declarative, procedural or causal knowledge to know or be able to exhibit this competency in the future.

A concerted effort was made to discuss cultural competency and difference in Mid-Central. Ms. Catchings, a former assistant director of the program recalled, “Culturally responsive practice was very, very important to us. That’s about opening ourselves to others. We spent a lot of time in the seminar sessions with the fellows [on that].” Indeed they did. MCSD sought out the services of Dr. Michael Erving, a member of the administrative staff that had served in multiple capacities in the district, and had a track record of working with surrounding suburban school districts on the issue of race.
and cultural competency. His doctoral work focused on issues of race and culture in schools, and he was respected in the district. MCSD leveraged this local resource, asking Dr. Erving to provide multiple workshops in a seminar series entitled Race and Cultural Awareness in Schools. The seminar series’ three sessions had the following foci:

- **Session 1:** Framework/Developing a Common Language
- **Session 2:** Racial Identity Development
- **Session 3:** Anti-Racism Action Plans & Promising Practices

The sessions were well received and seen as high quality. One former participant recalled the work,

> A big area of coursework was cultural competence. [Dr. Erving] did a lot of that stuff. I remember it now because I do think it really helped with the trust in the beginning because we had to do a lot of sharing with each other about our footprint to where we were in our lives at that point. It definitely intersected with race and class.

This work, though substantial and significant, did not provide knowledge to implement explicit strategies to close achievement gaps. In interviews the term achievement gap was rarely used, though cultural competency or cultural awareness was a shared and acknowledged concept. Why there wasn't more explicit attention on strategies to close achievement gaps is not clear.

In addition to the above knowledge gaps, data from both case sites revealed a shared knowledge gap: a collective lack of emphasis on influencing the instructional core. In both sites the importance of being an instructional leader was clearly evident in the beliefs, values and mental models espoused in the program. However, the presence
of declarative and procedural knowledge was mixed and causal knowledge in this area was missing altogether. In Mid-Central there were efforts made to expose participants to descriptive knowledge of curriculum and instruction. One example was the introduction and use of learning walks. MCSD described learning walks as “generally focused on school or district-wide instructional priorities, or topics which have received targeted professional development investment.” During these walks one or more principles of learning were looked for. Those principles included:

1. Organize for effort,
2. Clear expectations,
3. Recognition of accomplishments,
4. Fair and credible evaluation,
5. Academic rigor in a thinking curriculum,
6. Accountable talk,
7. Socialized intelligence, and
8. Learning as apprenticeship.

Participants were equipped with definitions of the above areas accompanied by a set of looks fors in teachers and students. Aspiring principals were also provided with information and research on instructional coaching. The know-what was evident. However, there was no evidence of aspiring principals being exposed to more than descriptive knowledge of these areas in MCSD. There were opportunities to experiment or “discover” one’s own approach to conducting walkthroughs with the aids provided and the guidance of program staff, which can be viewed as a form of procedural knowledge,
but no clear direction was provided on how to melt these items together or what was essential for an effective walkthrough that influenced the instructional core. This was reflective of how impacting the instructional core was addressed. In Great Lakes this same gap appeared. The areas of curriculum and instruction were addressed by program instructors and guest lecturers from the district central office. Those presentations were orientations to the specific philosophies, strategies, and materials used in the district. However, no evidence was found that could substantiate that Great Lakes aspiring principals were exposed to more than descriptive knowledge in this area. Though both case sites placed an emphasis on instructional leadership in its values and beliefs, the vagueness of procedural knowledge and the absence of causal knowledge produced a substantial and important knowledge gap in both programs.

**Realities of Practice**

One of the largest critiques of traditional university-led programs is that they lack relevance. Each program studied worked to create programs that reflected the realities of practice in their districts. Both sites viewed program relevance as essential to candidate preparedness, making it an area of emphasis. The primary means through which MCSD and GLSD worked to provide relevant learning opportunities was through year-long field experiences. These experiences provided authentic learning opportunities for aspiring principals to observe, experiment, and reflect on their practice. However, the depth of those experiences varied based on each district’s resources and ability to leverage the field experience for learning in coursework and/or supplementary assignments. In this section I provide data to illustrate both districts’ work in this foundational area.
Both sites studied placed an emphasis on providing authentic learning experiences for aspiring principals. In Mid-Central, Ms. Strong stated this priority plainly,

It was very, very clear that everything [we knew] about adult learning [was] that it [had] to be practice-based. It [had] to be relevant. It [had] to be helping me solve problems. We were really clear that [aspiring principals] had to be in schools, to try and do this work, and that there is a stunning amount that can be learned from great principals. It was really that simple. It was we can't talk about stuff for a year that they're not experiencing. That their experience of that needs to drive how we talk about it. That was the goal.

Over and above making the learning opportunities experiential and practical, Mid-Central also wanted placements that would resemble the types of schools these aspiring principals would enter as first year principals. Ms. Strong continued,

There were really good places to go see [instructional leadership] and to see the challenges of it. There were a couple of really interesting dilemmas around that. There were plenty of opportunities. The dilemmas were do you want people seeing this done at its highest level? The first instinct is of course, yes, that's what you want. You want them to have a vision of what you shoot for. It became quite interesting because sometimes you couldn’t get to be as good of an anthropologist or an archeologist and dig back and understand “how did they get here?” If you just saw it function well, it didn't help you understand how did they build the capacity and do it that way? How did they build the culture that I’m hearing about and it's quite different from other schools I see? But I don’t know how they did it. We came to understand that schools that had "arrived,” although there were no schools in [Mid-Central] that had arrived, the highest performing schools were sometimes not the best places to put [fellows]. What ended up mattering more or certainly as much, that it was a very strong principal with a very clear vision and a very clear strategy. That ended up mattering as much or more than what was the current performance level. We would never put folks in schools that were like in trouble. We were more likely over time to put people in schools that were like on the road. You were going go see it in its messy state. That was really important because those were the schools they were going to get. They weren't going to get principalships in schools that were [already high performing]. We were concerned that we wouldn't be preparing them well if they didn’t see that messiness.

For Mid-Central, relevance and resemblance to actual practice needed to focus on both
what aspiring principals would be asked to do as well as where they would be asked to do it. The end product was an experience that went beyond canonical practices, causing several individuals to state that the program was “as close as you can get to the principalship without sitting in the seat.”

This same level of emphasis on relevant, authentic learning opportunities was found in Great Lakes. Ms. Hempstead stated that from the very beginning, “We wanted [the program] to be totally real-world based. We didn't want it to be textbooky. We didn't want it to be writing essays or papers. We wanted them to be totally immersed in the work of a principal.” Because of the fiscal circumstances of Great Lakes they couldn’t be as intentional about the principal mentor – protégé match as their colleagues in Mid-Central. Nevertheless, participants in GLSD reported having a positive field experience. One participant stated,

I do feel like the program itself prepared me as best as it could for the job, I think there are just many aspects you just, I don't know, I think it's hard to prepare someone fully for the job until you know you're completely entrenched in it.

When probed further about what she meant by this, she continued,

I think you can't always prepare people for, like the volume [of the job]. Whether it's volume of demands or volume of e-mails or volume of just the heaviness of the job. I mean there's so many important decisions that you have to make. I don't know, somewhat of that emotional toll, I don't know if we can truly prepare people for [that].

Other program participants agreed that the program gave them opportunities for relevant learning experiences. Much of that appeared to be due to the use of various tasks integrated within the internship. Several program participants mentioned them directly as a strength of the program that brought focus and relevance to their experience. Another program participant stated,
Every activity was designed with [your intentional learning] in mind and you had to pick from a list of, like, 60 with your mentor principal to choose which ones you could authentically take on...Everything [was] very task-driven, related to the leadership standard, and you [had] multiple opportunities for feedback, but it was a real thing...[you] definitely had to get your hands dirty ... They were rigorous. It wasn’t something that you could fake if you really wanted to get the learning out of it. I took them very seriously. For me, it was a very real experience, but it was all based on the list of tasks.

Depth Varied

Though both programs succeeded in providing authentic learning opportunities overall, the quality and level of depth of those experiences varied across sites and within sites. For example, Mid-Central did not have a centralized set of tasks as Great Lakes did. Their “activities” were embedded within the syllabi of each course. In the class on family and community engagement participants were asked to perform a number of distinct tasks as part of an action research project during the year-long course. Specifically, program participants were asked to complete fourteen (14) distinct tasks/assignments associated with engaging families or fostering community partnerships. This was an exemplar for MCSD, but other courses offered canonical experiences that lacked alignment to the daily work of principals. For example, a semester-long course on aligning, people, time and money was sighted as helpful, but less relevant. The primary assignment of the course was a cornerstone project that emphasized reflection on what was taught in the course. The three tasks to be completed were:

1. Reflect on your learning from the three-day institute with [a national intermediary organization] on resource alignment.

2. Describe and analyze the budget development process in your school.
3. Discuss how you will approach resource use and alignment as a school leader.

In this example the instructor focused on declarative knowledge, but not procedural or causal knowledge, making the activities more canonical and less reflective of actual practice. This variability, though not widespread, impacted the overall depth of the program, as participants noted a handful of courses that were seen as less helpful.

The fellowship in Mid-Central also posed a challenge to providing a consistent experience that reflected the realities of practice. MCSD program administrators went to great lengths to design a fellowship that provided authentic learning opportunities. Despite these efforts, the experience could vary greatly from one fellow to the next. One program participant now in her second principalship recalled:

The internship was probably the most individualized component of the program for better or for worse. It's exactly like student teaching in that the experience is completely dependent on the quality of the cooperating principal. I think whereas [my mentor principal], in his mind had a plan for me. So, really [he] was like whatever you want to do, everything I do is open, you can follow me everywhere, you can do your own project, whatever. Other [principals] felt more territorial about their stuff, [some fellows] were more limit[ed] in what they could do, others had great relationships. That was often a source of conversation amongst the cohort in terms of how their four days a week were going because while we were having that same graduate course experience, we were having very different residencies. [Some of us were treated] like a lead assistant principal, almost exactly like an assistant principal and even having some roles that the principal may specifically have by the end [of the fellowship]. I would say [that] other [fellows were treated] like free labor, [an] extra set of hands kind of, maybe more like [an] instructional coach, but even that could be limiting. More like special projects, periphery stuff, but not really being included in the real work.

In Great Lakes this variability in field experience was also seen in the data. One GLSD program participant explained,

I think [any shortcomings of the program] come in to play depending upon where you had your internship, because my [experience] may be different than someone else's [experience] because of the experience that they had actually on the ground.
where they were doing their internship.

The type of variability described had an impact on the program’s overall resemblance to the real work of the principalship. In GLSD the program intentionally relied heavily on the field experience – the internship – to prepare their aspiring principals for future placement. When those placements qualitatively varied from one school site to another, the instructional experience of the aspiring principals varied. Though some of those variances were a result of customization and intentional efforts to create an individualized learning experience, many of the differences were unintentional, and decreased the learning experience of participants. One program graduate described her summer internship experience:

I felt like I didn’t really gain very much from [my summer internship] experience… it was at [Saginaw] Elementary and they were doing their summer school program and the principal wasn’t really there and the Assistant Principal was getting ready to leave so it was only me... The summer school teachers performed so I never had to deal with anything. Really, I didn’t have to deal with discipline. I didn’t learn very much. I just was kind of there and of course I didn’t know what I was doing. I was there but I didn’t have any support. Maybe some of the other people had the principal there to help them but [my] two administrators had disappeared. I was kind of just flying by the seat of my pants, trying to use common sense if anything did come up.

This same participant described her year-long internship in glowing terms. Her field experience alone speaks to the varied experience a participant could have, and its adverse impact on exposure to instructional conditions that resembled actual practice.

However, in Great Lakes the design of the internship experience created what some respondents viewed as more fundamental challenges, hindering its ability to deliver on its visionary promise of providing “real world” experiences. Some thought that the summer internship offered in Great Lakes, though matched intentionally, was too short.

One former mentor and summer intern host stated:
Doing a summer internship is not enough time in the work to match the reality of the job. You get a little bit of this, you get a little bit of that and that’s great, like you get a sampler. The work of the principal is so dynamic and so synergistic...I’ve worked with other [aspiring] principals that have had a year-long internship and it really wasn’t until the end of the year that you could finally [see them] get it. You would see the light bulb come on where people really figured out how this over here, if this changes, [impacts that over there]...You can’t get that experience in a very short amount of time with somebody. You can’t even develop the relationship. Like a real trust level for even an individual to be vulnerable with you.

The short duration of the summer internship was seen as a hindrance to developing the process capabilities needed (e.g., time and trust) to create a strong enough transfer relationship. There was also some concern about the structure of the internship, offered while the aspiring principal worked full-time in another assignment, and its ability to consistently deliver on deep learning experiences. Another principal mentor shared her concerns:

It's very difficult to really understand the complexity of leadership when you're in a classroom all day or you are trying to get 12 activities done in a six-week summer program when the teachers aren't even in there, when the kids aren't even in there. I mean, I think it's their best effort at trying to get to it, but I do think that they don't get to see the behind the scenes work as much as someone who gets to do it and that's their full time job...like when you had that difficult conversation with the teacher that's not performing well, that [aspiring principal] is not in that conversation because she's down the hall teaching in her classroom ... I just think that it's very difficult to get at the complexity of leadership through tasks. They try to capture it in assignments or things that would be on your to do list with the [program], but leadership to me is just so much more complex than a to do list.

Both case studies provided data that revealed programs that offered aspiring principals experiences that resembled the realities of practice. This was done through the provision of year-long field experiences that created access to conditions that mirrored the complexity of the contexts program participants would enter as first year principals,
as well as access to the insights and tacit knowledge of seasoned mentor principals. In Great Lakes, assigned activities were a pivotal program component that gave structure and focus to the field experience. In Mid-Central, activities varied in their perceived utility, sometimes staying too theoretical and canonical in nature. However, Mid-Central’s full-time fellowship created a rich opportunity to experience the day-to-day work of the principal, creating an experience that could only be rivaled by actually seating in the principal seat. Both programs exhibited variability in field experience based on the strengths and weaknesses of their respective mentor principals. Principals that had codified some of their procedural or causal knowledge, were conscious of their leadership values and beliefs, were open to making their practice public to their protégé, and were active in providing their protégé guidance, support, and feedback accelerated knowledge transfer and/or generation. A number of mentor principals across both cases struggled to meet this expectation, resulting in protégé reliance on thin descriptions of practice or unauthentic learning experiences that provided little to no insight into the complexity of the work, or how it can be done effectively. In Great Lakes, the summer internship was seen as too short to provide the process capabilities needed to move beyond anything more than exposure to canonical practices. This structural weakness was seen as a design flaw that weekend the program. Nonetheless, both district-led programs offered experiences that were relevant and resembled actual principal practice, delivering on preparation that surpassed what traditional college and university programs have offered.
Summary

An analysis of data from both cases studied supports the finding that both district-led aspiring principal programs were able to establish a solid knowledge base with an emphasis on instructional and community (shared) leadership. Those knowledge bases defined a discernable set of declarative knowledge that codified what principals should know to be effective. However, those knowledge bases provided inconsistent access to procedural knowledge, based on the competency or standard. Neither program resolved issues of causal ambiguity, as they both struggled to codify causal knowledge or make it widely accessible. These shortcomings produced significant knowledge gaps. Lastly, the data supports that both programs offered experiences that reflected the realities of practice. Each program created experiential learning opportunities that mirrored the complex contexts in which program participants would enter as first year principals. However, participants’ learning experiences qualitatively varied in both programs. Some participants were provided access to authentic, rich learning opportunities that reflected the complexity of principals’ work and the improvisations they must consider. While others were confronted with experiences less reflective of the work of principals that was more canonical in nature. In one site, this appeared to be a design problem caused by the fiscal constraints of the host district. These variations weakened broad claims that the programs studied fully addressed a reliance on canonical practices.
CHAPTER 6: DISCUSSION

Overall, the findings of this study support the view that district-led aspiring principal programs have overcome some of the problems that beset traditional university-led programs. Specifically, data reveals that district-led programs within this study have solid, though incomplete, knowledge bases, and provide experiences that move beyond representations of canonical practice, but have failed to address the issue of causal ambiguity. In coming to such conclusions a handful of issues emerged that have implications for both practice and research. In this chapter I will discuss these issues briefly, focusing first on implications for practice, concluding the chapter with a discussion of implications for research – areas for future study.

Implications for Practice

In the process of coming to the above findings, a handful of issues emerged that have implications for future practice. Two particularly important issues (needs) surfaced that I will discuss here in greater detail.

Greater Investment in Mentor Principals

An analysis of the data reveals two prevailing problems with a shared root cause. Both programs studied created knowledge bases that surpassed those of their university predecessors. They also created access to meaningful learning experiences that were authentic, experiential, and practical. Still, participants’ access to each program’s respective knowledge base qualitatively varied as did the depth and authenticity of their learning. Likewise, both programs failed to resolve longstanding issues of causal
ambiguity, struggling to codify and create access to causal knowledge. This variability and causal ambiguity manifested primarily in participants’ field experiences.

Both programs’ design made the field experience the primary program facet used to equip participants for the principalship. In Mid-Central School District each aspiring principal had a year-long full-time field experience in a school with a mentor principal. In many ways the course work complemented the field experience as opposed to vice versa. In Great Lakes, the field experience was limited to 15 hours a week, but served as the context in which most of the program’s assignments were completed. In doing so both sites created a set of learning opportunities that were decentralized, increasing the level of organizational difficulty to sustain the fidelity of the program. This design choice, which placed heavy instructional reliance on the field experience, shifted the instructional locus of control from the classroom to the school house, making mentor principals primary instructors as opposed to professors. They did so with only a limited initial investment in the orientation, training, and engagement of mentor principals.

Resolution of the majority of program variability and causal ambiguity can be achieved through a greater investment in mentor principals. Indeed, the development and training of mentor principals must be as deep as or deeper than work with aspiring principals. By design, mentor principals became de facto program instructors. In many ways they became one of the, if not the, most important instructional component of the program. That weighty role demands an equally weighty investment. District-led programs must seek out and mine the knowledge of their mentor principals to resolve causal ambiguity. This work could resemble the next phase of work in Mid-Central. In Mid-Central, Ms. Strong recognized that in order to get access to the deep knowing of
principals, mentor principals needed a greater level of self-reflectivity and awareness. Any district attempting to launch their own program would need to provide mentor principals/practitioners with the necessary support – time, space, and conceptual frameworks – to better understand what they as effective principals do to be effective. This work is “reflective” and “anthropological.” How do you make your work public to another? How do you learn through observation and inquiry? How do you create and/or sustain the organizational conditions that foster this type of exchange and transparency? It requires shared mental models, a common language, safety for transparency, time and space for collaboration and the formation of communities of practice. It is in many ways recasting what we mean by a learning organization.

Comparable investments to address issues of canonical practice must also be made. The pivotal role of mentor principals as de facto primary instructors begs the question: how does a district create a shared vision of the principalship among its principals so that they collectively provide a consistent knowledge base and comparable learning experience for a pool of 8-25 aspiring principals every year? To build such coherence at scale requires districts to overcome the strong inclination of great principals to spend their time doing what they love to do, being a principal. They want to lead a building of faculty and staff to create a great place to work and learn that produces extraordinary outcomes for students. Ultimately, that’s what they’re held accountable for. That’s their foremost and fundamental charge. Many do not want to be pulled from their buildings or removed from their daily routine. In some districts, principals actively work to insulate themselves from the influence of central office and other external entities (Elmore, 2000). In districts where a prevailing culture of compliance and control exists...
or pre-existed, many principals just want to be left alone (Wagner, 2008). In the face of
such a professional culture it is challenging for school districts to instill a shared vision of
what good principals do. For some principals it is equally hard to ask them to allow
access to meaningful, scaffolded real-time opportunities that allow protégés to learn how
they do what they do. To transform the principalship, districts need to confront loose
coupling and treat aspiring principal programs as one part of a larger organizational
transformation effort.

Acknowledge the Existing District Context

As the sites studied worked to launch and manage their own aspiring principal
programs, they did so within larger district contexts. Both programs pushed the envelope
of principal practice and preparation, presenting mental models of the principalship that
conflicted with the status quo generally, and prevailing views of principals in their home
districts specifically. They also put program participants into the position of not just
applying but defending the respective knowledge bases they had just been exposed to as
they entered the principalship. As stated above, both districts had solid, albeit imperfect,
knowledge bases. As both programs were being developed and rolled out, it was
acknowledged in both sites that neither the majority of sitting principals nor central office
staff were intentionally taught this mental model of principal leadership as part of their
leadership preparation. In Great Lakes, there was clear dissonance between what was
being espoused in the program and what was being rewarded and/or lifted up among
sitting principals. One participant described this experience:

We were starting to see gains as a district and one of the schools that had seen
tremendous gains was [Peterkin] Elementary and at that point [Melissa Kethridge]
was principal there. I didn’t know her personally, hadn’t had a lot of interaction with her in any way shape or form and [Peterkin] was getting amazing gains and we would go to principal meetings and videos of [Peterkin] Elementary School [were shown]. But on the inside we were very aware of how [Melissa] operated as a principal. Right. Strong instructional leader, she knows her stuff, but stories such as this, and I will say they are all second hand, but when you hear enough of them it’s the story you start to tell yourself. Things along the lines of if you didn’t do what she wanted she would go clean out your classroom, put all your stuff in the parking lot and you’d have to go pick it up. I mean crazy sounding things like that or like if you didn’t follow her rules you’d be [written up]. Writing up was the main mode of getting rid of you and she had no bones about doing that. ..For me there was the conflict of ‘I’m watching a video in a principal’s meeting that’s presented by the district about this amazing school and the amazing gains that are happening here, but I also know the way or at least the stories around the way this person is getting to that. I don’t believe in that methodology and I wasn’t groomed to do that in this program.’ We had multiple, I remember distinctly us having conversations about this. There was a pivotal [conversation] near the end of my first year, scores had just come out in May and we were at [a local diner] maybe almost in tears looking at each other and saying ‘is that who I have to be?’ There were several things that happened kind of in principals’ meetings and things like that throughout the year [that made us say] ‘if that’s who I have to be and that’s who the district wants us to be, I will not do this.’ There were four of us sitting at the table and at least 3 of the 4 of us said that out loud. I think it spoke to the internal conflict we were having around what we were being [as leaders], what we had been taught to be and the way to get [the results we wanted].

This set of conflicting messages – two opposing views of principal leadership – created a conundrum for program participants, forcing them to decide the type of leaders they wanted or had to be to get the academic gains expected of them. These conflicting mental models also had the potential of penetrating the smaller knowledge base of the program by impacting the beliefs, mental models, and professional practice of mentor principals. Great Lakes could be particularly susceptible to this problem due to the size of its cohorts, approximately 25 students. Cohorts of this size required nearly a sixth of the district’s sitting principals to serve as mentors at one time. Subsequently, whatever the prevailing view of principal leadership was amongst the district’s principals could directly influence and be integrated in the program’s knowledge base.
In Mid-Central, a comparable type of tension existed. In MCSD, aspiring principals were being prepared to lead in a way that was substantially different from the district’s traditional view of principal leadership. This disconnect was so apparent in the early years, that one of the initial funders of the program indicated that this conflict with the pre-existing organizational view of principal leadership was a weakness of their proposed program. Dr. Douglas Hansbrough, a professor of education there at the program’s inception, articulated this tension:

You can always bet on the culture changing the individual more than the opposite. [Nevertheless,] I took seriously [Wagner] saying that we’re trying to use this as a lever for really improving overall instruction and the culture in [Mid-Central]…I remember at the first graduation I said to [Bill], whom I actually didn't know that well at the time, I just said, “We are preparing people for a system that doesn't yet exist. You're really kind of preparing these people like for ‘change agents to be’ in a system that hasn't caught up to them yet. Are you okay with that?” He said, basically, yes, we see [our program] as a way to improve the system.

Here we see that in Mid-Central the conflict was intentional and anticipated, for the participants were expected to become change agents or carriers of a new vision and way of leading. So the dissonance they would experience was expected. Nevertheless, graduates of the aspiring principal program had to possess the resolve to lead in the way they had been taught. As districts create aspiring principal programs, they must be mindful that these programs exist within a larger district context with its own knowledge base that could contradict or undermine the knowledge base of the program. Programs with large cohorts needing large numbers of mentor principals could be particularly susceptible to this challenge.

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6 Based on a review of a district compiled summary of funder feedback on the district’s funding proposal.
Implications for Research – Areas for Future Study

Following this research, future studies can take a number of different directions. First, other district-led aspiring principal programs could be analyzed through the analytic lens applied in this study to further strengthen or confront the findings presented here. Likewise, university-led programs could be examined using this lens, as well as programs run by intermediary organizations, particularly those that are industry leaders. Such studies could assess their areas of emphasis and potential shortcomings, if any. Second, aspiring principal programs are only one of many kinds of professional growth and development opportunities a principal may receive during her or his career. Other programs are fashioned for principals at the beginning of their careers shortly after entering the principalship, and still others for more “experienced” principals. The analytic lens applied in this study could be applied to these types of programs. Customarily principals must earn a predetermined number of “professional development points” as part of the renewal of their administration certification. This requirement alone has produced a cottage industry of programs, seminars, and institutes targeted toward principals on various topics. This analytic lens of knowledge management can be applied to the analysis of such programs, even if they focus on a single competency or seek to serve a niche audience such as turnaround principals or principals of career and technical education high schools.

Future research could also explore if there is a correlation between participation in district-led programs and the development of competencies found in program participants’ actual practice. Within this study I gather evidence on how participants experience the program, but did not seek evidence of the impact of the program on
participants’ professional practice or the schools they would later lead. One could examine if or how graduates of district-led aspiring principal programs put into practice competencies espoused to have been taught. Is their professional practice reflective of the knowledge base of the program in which they participated? Does participation in a district-led aspiring principal program result in a positive change in a school’s purpose and goals, its structure and social networks, its teachers’ commitment, instructional practices, and/or organizational culture, elements found to produce statistically significant effects on student achievement (Hallenger and Heck, 1998)? This type of study could be very interesting, creating a treatment group of graduates of district-led programs and a control group of graduates from university-led programs. A number of variables would have to be controlled for, including but not limited to, years of teaching experience, previous degrees, and other instructional leader roles.

Likewise, future studies could also explore any correlations between program participation and school performance. Research has established an indirect positive relationship between principal instructional leadership and student achievement (Brewer, 1993; Eberts and Stone, 1988; Hallinger and Heck, 1998; Leithwood, Seashore Louis, Anderson, and Wahlstrom., 2004). Future studies could examine the correlation between participation in district-led programs and school performance. Specifically, research could look at school performance over time, before appointment and after appointment, comparing the results of principals from various types of programs. If measures of school culture from student and/or teacher surveys is available, this data could complement data on student performance on standardized assessments as measures of school performance.
The relative dearth of research on developing highly effective principals creates a variety of directions and questions that could be pursued.

Lastly, future research could focus on the use of knowledge management as an analytic lens, but focus on a different target audience – teachers. Just as our nation is struggling to develop high quality principals, school systems (particularly those in urban areas) are laboring to recruit, hire, retain, and develop highly effective teachers. In response, a handful of urban school districts have developed their own teacher preparation academies to provide teachers specifically trained to be successful in their schools with their student population. These programs could be examined as could traditional university-led programs and those led by intermediaries such as Teach for America. This direction would expand the use of knowledge management to look at other facets of professional preparation and development in education, also areas worthy of further investigation.
CHAPTER 7: CONCLUSION

The objective of this research was to examine if two district-led aspiring principal programs had overcome the problems that have plagued university-led programs. Namely, had the two programs developed a solid knowledge base, overcome causal ambiguity and provided a set of learning experiences that went beyond canonical practices. To perform this examination I conducted a holistic multiple case exploratory study utilizing qualitative research methodology. While there has been plenty of research on the efficacy of principal practice and its correlations to school performance and student achievement, relatively little research has been done on principal professional development, particularly training programs for aspiring principals. To explore this topic a unique analytic lens – knowledge management – was utilized to examine both sites.

Overall, the results of this study support the view that the programs examined had solid, albeit imperfect, knowledge bases with an emphasis on instructional and community leadership. Both programs defined what a principal should know and be able to do as an effective principal leader. They each emphasized a set of key domains that aligned with the reform agendas of their respective districts, creating a customized experience for program participants to lead in their local contexts. One district developed such domains and another adopted a nationally recognized framework. Both districts built their programs upon these domains, providing descriptive knowledge (know-what) through weekly classroom instruction to convey important concepts and principles. Each program also created access to procedural knowledge (know-how), using project-based learning, field experiences and simulations to create hands-on opportunities for program participants to learn how to execute the work of a principal. Despite these
accomplishments, both programs failed to create systematic, consistent access to causal knowledge (know-why). This, and a handful of knowledge gaps that were revealed through the study, weakened each program’s respective knowledge bases, but did not negate the discernable knowledge bases that were found.

Both program’s struggles with causal knowledge made them unable to resolve causal ambiguity. This problem stemmed from inadequate efforts on the part of both districts to make principal professional practice transparent. Program participants entered their respective programs with insufficient prior knowledge to know what to look for, and received limited support to strengthen their schemas. Mentor principals lacked the time, space, and frameworks to reflect on and make meaning of their practice to discern what made their practices effective or ineffective. The absence of both contributed to the causal ambiguity found throughout this study. One district identified this programmatic shortcoming and took affirmative acts to correct it in the years following the period studied. The other district did not indicate an awareness of this problem, and consequently had no plans to address the causal ambiguity found.

Data also revealed that despite the aforementioned shortcomings, both programs delivered on learning experiences that went beyond canonical practices. Data showed that both districts created experiential learning opportunities and field-based experiences that reflected the realities of practice. One program offered a year-long internship to participants while another offered full-time paid fellowships. These experiential learning opportunities turned schools into learning labs under the direction and guidance of a mentor principal. This design component essentially shifted the locus of instruction from the classroom to the school house, making the mentor principal a primary instructor.
Absence of a shared vision of instructional leadership district-wide and a lack of fidelity between principal mentors created variability in field experience, weakening claims that the programs studied provided experiences that mirrored the realities of practice consistently for all participants.

These findings suggest that the proximity of districts to schools and practitioners, as well as their approach to creating and supporting field based experiences, allows them to offer more authentic learning opportunities than those traditionally offered by their university peers and predecessors. However, it should not be assumed that such authenticity intrinsically resolves issues of causal ambiguity. Nor should it be assumed that authenticity resolves issues of scale and coherence, which both proved to threaten the fidelity of program experience. It should not be concluded that the next generation of university-led programs cannot match or exceed the performance of the two district programs studied.

Furthermore, this study confirms that a knowledge management taxonomy can serve as a suitable analytic lens through which to examine principal professional development. Specifically, by identifying and examining knowledge forms, knowledge functions, and knowledge capabilities in principal preparation or continuous learning programs, a great deal can be learned. It is my hope that future studies will be conducted using this analytic lens, expanding on this nascent theory and further contributing to what we know about developing the school leaders our communities and students need.
Appendix A: District Profiles

<table>
<thead>
<tr>
<th></th>
<th>Mid-Central School District</th>
<th>Great Lakes School District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of District</td>
<td>Urban</td>
<td>Urban</td>
</tr>
<tr>
<td>Grade Range</td>
<td>Pre-K – 12</td>
<td>Pre-K – 12</td>
</tr>
<tr>
<td>Number of Students</td>
<td>62,879</td>
<td>137,180</td>
</tr>
<tr>
<td>Number of Schools</td>
<td>135</td>
<td>172</td>
</tr>
<tr>
<td>Number of Principals</td>
<td>135</td>
<td>172</td>
</tr>
<tr>
<td>Duration of Program</td>
<td>1 year</td>
<td>2 years</td>
</tr>
<tr>
<td>Size of Cohort</td>
<td>8 – 11</td>
<td>24 – 25</td>
</tr>
<tr>
<td>Instructional Leadership</td>
<td>Developed</td>
<td>Adopted</td>
</tr>
<tr>
<td>Domains</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Field-based Experience</td>
<td>Fellowship (full-time, paid)</td>
<td>Internship (part-time, unpaid)</td>
</tr>
<tr>
<td>Principal Mentor</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Principal Certification Upon</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Successful Completion of Program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District Approach to Leader</td>
<td>Competitor of Universities</td>
<td>Collaborator with Universities</td>
</tr>
<tr>
<td>Preparation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Mid-Central School District – Domains of Principal Leadership

1. **Understanding and Managing Self**
   1.1 Integrity
   1.2 Emotional self-control
   1.3 Personal growth and reflection on practice
   1.4 Time management
   1.5 Self awareness

2. **Resilience**
   2.1 Constructive reaction to disappointment; willingness to admit error
   2.2 Constructive response to disagreement and dissent
   2.3 Strategy and stamina
   2.4 Renewal

3. **School Culture and Climate**
   3.1 Core beliefs and values
   3.2 Communication
   3.3 Physical environment
   3.4 Boundaries for behavior
   3.5 Systems, structures, rituals, and routines
   3.6 Collegial, reflective environment

4. **Learning and Teaching**
   4.1 Child and adult learning
   4.2 Academic standards and student performance requirements
   4.3 Learning needs of all students
   4.4 Cultural competency
   4.5 Achievement gap
   4.6 Research on standards, curriculum, instruction, and assessment

5. **Supervision and Evaluation**
   5.1 Clear performance expectations
   5.2 Supervision
   5.3 Formal evaluation
   5.4 Difficult decisions

6. **Data**
   6.1 Multiple data sources
   6.2 Communication of data
   6.3 Data-based decision-making

7. **Professional Development**
   7.1 Faculty strengths and needs
   7.2 Collaboration
   7.3 Participation in learning community
   7.4 Assessment of effectiveness

8. **Shared Leadership**
   8.1 Decision-making structures and processes
   8.2 Different points of view
   8.3 Delegation
   8.4 Leadership development

9. **Resources**
   9.1 Budget, staff, and time
   9.2 Resource-allocation decisions
   9.3 Corporate and community resources

10. **Family and Community Engagement**
    10.1 Communication with families and community
    10.2 Needs and assets
    10.3 Connection to student learning
## Appendix C: Side-by-Side Comparison of State Principal Standards and Educational Leadership Constituent Council Standards in GLSD

<table>
<thead>
<tr>
<th><strong>STATE PRINCIPAL STANDARDS</strong></th>
<th><strong>ELCC STANDARDS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Strategic Leadership</strong></td>
<td><strong>Standard 1.0</strong></td>
</tr>
<tr>
<td>School Vision, Mission and Strategic Goals</td>
<td>Develop School District Vision</td>
</tr>
<tr>
<td>Leading Change</td>
<td>Articulate Vision</td>
</tr>
<tr>
<td>School Improvement Plan</td>
<td>Implement Vision</td>
</tr>
<tr>
<td>Distributive Leadership</td>
<td>Steward Vision</td>
</tr>
<tr>
<td><strong>2. Instructional Leadership</strong></td>
<td><strong>Standard 2.0</strong></td>
</tr>
<tr>
<td>Focus on learning and teaching, curriculum, instruction and assessment</td>
<td>Provide Effective Instructional Program</td>
</tr>
<tr>
<td>Focus on instructional time</td>
<td>Apply Best Practice to Student Learning</td>
</tr>
<tr>
<td><strong>3. Cultural Leadership</strong></td>
<td></td>
</tr>
<tr>
<td>Focus on Collaborative Work Environment</td>
<td>Promote Positive School Culture</td>
</tr>
<tr>
<td>School Culture and Identity</td>
<td></td>
</tr>
<tr>
<td>Acknowledges Failures</td>
<td></td>
</tr>
<tr>
<td>Celebrates Accomplishments and Rewards</td>
<td></td>
</tr>
<tr>
<td>Efficacy and Empowerment</td>
<td></td>
</tr>
<tr>
<td>Professional Development/Learning Communities</td>
<td></td>
</tr>
<tr>
<td>Recruiting, Hiring, Placing, and Mentoring Staff</td>
<td></td>
</tr>
<tr>
<td>Teacher and Staff Evaluations</td>
<td></td>
</tr>
<tr>
<td><strong>5. Managerial Leadership</strong></td>
<td><strong>Standard 3.0</strong></td>
</tr>
<tr>
<td>School Resources and Budget</td>
<td>Manage the Organization</td>
</tr>
<tr>
<td>Conflict Management and Resolution</td>
<td>Manage Operations</td>
</tr>
<tr>
<td>Systematic Communication</td>
<td>Manage Resources</td>
</tr>
<tr>
<td>School Expectations for Students and Staff</td>
<td></td>
</tr>
<tr>
<td><strong>6. External Development Leadership</strong></td>
<td><strong>Standard 4.0 and Standard 6.0</strong></td>
</tr>
<tr>
<td>Parent and Community Involvement</td>
<td>Promote Community Involvement</td>
</tr>
<tr>
<td>Federal, State, and District Mandates</td>
<td>Collaborate with Families and the Community</td>
</tr>
<tr>
<td></td>
<td>Respond to Community Interests and Needs</td>
</tr>
<tr>
<td></td>
<td>Mobilize Community Resources</td>
</tr>
<tr>
<td></td>
<td>Understand the Larger Context</td>
</tr>
<tr>
<td></td>
<td>Respond to the Larger Context</td>
</tr>
<tr>
<td></td>
<td>Influence the Larger Context</td>
</tr>
<tr>
<td><strong>7. Micro-Political Leadership</strong></td>
<td><strong>Standard 5.0</strong></td>
</tr>
<tr>
<td>School Executive Micro-Political Leadership</td>
<td>Acts with Integrity</td>
</tr>
<tr>
<td></td>
<td>Acts Fairly</td>
</tr>
<tr>
<td></td>
<td>Acts Ethically</td>
</tr>
</tbody>
</table>
Appendix D: Letter to Informants

Dear [Name]:

As we discussed, I am currently working to complete my doctoral work at the Harvard Graduate School of Education (HGSE). As part of that work I’m writing a dissertation on principal professional development, looking specifically at [NAME OF PROGRAM]. As a former [THEIR ROLE IN PROGRAM], I would greatly benefit from learning about your participation in, and reflections on the program.

To learn more about your experience as a ____________________, I would like to interview you for 60-90 minutes at a time and location of your choosing. Everything we discuss will remain confidential, and will be used solely for inclusion in my dissertation where all names and identifying information will be removed. All I ask is that I may audio record our conversation so I may capture all of the valuable insight you share.

To provide you with additional information on my dissertation I have enclosed a consent form for your review. It outlines the purposes of my study, expectations of participants, and reiterates my commitment to maintain the confidentiality of any and everything we discuss. Should you have any questions or concerns regarding this study or your participation please don’t hesitate to contact me. I may be reached by phone at XXX-XXX-XXXX or by e-mail at ____________.

Thank you in advance your time and consideration. I look forward to speaking with you and learning more from you.

Sincerely,

[Name]
Doctoral Candidate
Harvard Graduate School of Education
Appendix E: Consent Form

I. Project Description

The purpose of this study is to learn if district-led aspiring principal programs clearly define what aspiring principals need to know (and be able to do) to positively affect student achievement, and does that content reflect the realities of actual principal practice. Through an in-depth look at two urban school districts’ work, I will investigate how school districts designed and implemented their own aspiring principal programs.

II. Expectations of Participants

Study participants will be interviewed for approximately 60-90 minutes, and will be audio recorded, with each participant’s permission. Any participant may request that the audio recorder be turned off at any time during the course of an interview.

III. Risks and Benefits

Participants in this study are not expected to receive any direct personal benefits from their participation. No risks or discomforts are anticipated as a result of participation in this research study.

IV. Confidentiality

Your participation in this study, and any details that may reveal your identity will be kept confidential. Your real name will not be used at any point after the interview, or in any written report(s) produced during or after this study. No audio recordings will be used for any purpose other than to do this study, and will not be played for any reason other than to do this study. The digital records will be held in a locked filing cabinet until June 2015, at which time they will be destroyed.

V. Decision to Participate and Right to Quit at Any Time

Participation in this study is voluntary, and any participant may discontinue participation at any time. Researchers will conduct interviews over a period of several months. A decision to quit the study will not affect any future relationship between you and the university.

VI. Who to Call

Questions about the study should be directed to Frank Barnes, Doctoral Candidate, Harvard Graduate School of Education (XXX-XXX-XXXX or xxxxxxxx@gmail.com). Questions about the rights of a research subject should be directed to Jane Calhoun,
VI. Consent to Participate

I HAVE READ THE CONSENT FORM AND FULLY UNDERSTAND IT. ALL OF MY QUESTIONS HAVE BEEN ANSWERED. I AGREE TO TAKE PART IN THE STUDY, AND I WILL RECEIVE A COPY OF THIS COMPLETED FORM.

__________________________________________  __________________________________________
Name of Participant                        Signature of Participant

__________________________________________
Date

I FURTHER GIVE MY CONSENT TO HAVE THIS INTERVIEW AUDIO RECORDED. I UNDERSTAND THAT I MAY REQUEST TO HAVE THE AUDIO RECORDER TURNED OFF AT ANY TIME DURING THE COURSE OF THE INTERVIEW.

__________________________________________  __________________________________________
Name of Participant                        Signature of Participant

__________________________________________
Date

__________________________________________  __________________________________________
Frank D Barnes                            Signature of Researcher

__________________________________________
Date
Appendix F: Interview Protocols

PARTICIPANTS

Warm-up/Opening
  1. What made you want to become a principal?
  2. What made the [NAME OF PROGRAM] an attractive option?

Structure
  3. How long was the program and what were program requirements?
  4. What were the program’s core elements?
  5. Who were key people or partners who worked in or supported the program?

Knowledge Base
  6. What was the instructional focus and priorities of the program?
  7. What aspects of principal practice were emphasized?
  8. What did the program assert that aspiring principals need to know to be effective?

<table>
<thead>
<tr>
<th>PROMPT: research shows that three types of knowledge are important for any set of tasks: know-what...know-how...know-why.</th>
</tr>
</thead>
</table>
  9. Where was the greatest level of emphasis placed during the program: on what to do as a principal, how to do it, or why to do it? Please explain.
  10. How closely did the instructional content of the program reflect the realities of practice?
  11. Given all that you’ve described, did the program prepare you for the principalship? What were the gaps? What did they help you get down pat?

Closing Question
  12. Is there anything I haven’t asked about that you’d like to add?

Would it be okay to contact you to clarify something or to ask a quick follow-up question should something arise during the course of the study? Thank you.
INSTRUCTORS

Warm-up/Opening
1. What made you interested in becoming a part of [NAME OF PROGRAM]?
2. What do you think made it an attractive option for aspiring principals?
3. As an instructor, what was your role in the program? What courses did you teach?

Structure
4. How long was the program and what were program requirements?
5. What were the program’s core elements?
6. Who were key people or partners who worked in or supported the program?

Knowledge Base
7. What was the instructional focus and priorities of the program?
8. What aspects of principal practice were emphasized?
9. What did the program assert that aspiring principals need to know to be effective?

PROMPT: research shows that three types of knowledge are important for any set of tasks: know-what...know-how...know-why.

10. Where was the greatest level of emphasis placed during the program: on what to do as a principal, how to do it, or why to do it? Please explain.
11. How closely did the instructional content of the program reflect the realities of practice?
12. Given all that you’ve described, how good of a job did the program do preparing participants for the principalship? What were the gaps? What did you get down pat?

Closing Question
13. Is there anything I haven’t asked about that you’d like to add?

Would it be okay to contact you to clarify something or to ask a quick follow-up question should something arise during the course of the study? Thank you.
MENTORS

Warm-up/Opening
1. What made you interested in becoming a part of the [NAME OF PROGRAM]?

2. What do you think made it an attractive option for aspiring principals?

3. As a mentor, what was your role in the program? How many fellows did you work with at one time?

Structure
4. How long was the program and what were program requirements?

5. What were the program’s core elements?

6. Who were key people or partners who worked in or supported the program?

Knowledge Base
7. What was the instructional focus and priorities of the program?

8. What aspects of principal practice were emphasized?

9. What did the program assert that aspiring principals need to know to be effective?

| PROMPT: research shows that three types of knowledge are important for any set of tasks: know-what...know-how...know-why. |

10. Where was the greatest level of emphasis placed during the program: on what to do as a principal, how to do it, or why to do it? Please explain.

11. How closely did the instructional content of the program reflect the realities of practice?

12. Given all that you’ve described, how good of a job did the program do preparing participants for the principalship? What were the gaps? What did you get down pat?

Closing Question
13. Is there anything I haven’t asked about that you’d like to add?

Would it be okay to contact you to clarify something or to ask a quick follow-up question should something arise during the course of the study? Thank you.
PROGRAM ADMINISTRATORS

Warm-up/Opening
1. What made you interested in becoming a part of [NAME OF PROGRAM]?

2. What do you think made it an attractive option for aspiring principals?

3. As a program administrator, what was your role in the program? What did your work look like on a week to week basis?

Structure
4. How long was the program and what were program requirements?

5. What were the program’s core elements?

6. Who were key people or partners who worked in or supported the program?

Knowledge Base
7. What was the instructional focus and priorities of the program?

8. What aspects of principal practice were emphasized?

9. What did the program assert that aspiring principals need to know to be effective?

PROMPT: research shows that three types of knowledge are important for any set of tasks: know-what...know-how...know-why.

10. Where was the greatest level of emphasis placed during the program: on what to do as a principal, how to do it, or why to do it? Please explain.

11. How closely did the instructional content of the program reflect the realities of practice?

12. Given all that you’ve described, in retrospect, how well did the program prepare participants for the principalship? What were the gaps? What did you get down pat?

Closing Question
13. Is there anything I haven’t asked about that you’d like to add?

Would it be okay to contact you to clarify something or to ask a quick follow-up question should something arise during the course of the study? Thank you.


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