ASSISTANT PRINCIPALS' PERCEPTIONS OF RESEARCH-GENERATED KNOWLEDGE: AN EXAMINATION OF THE UTILITY AND QUALITY OF INFORMATION SOURCES

A Doctoral Thesis Presented to the
Faculty of the College of Education
University of Houston

In Partial Fulfillment of the
Requirements for the Degree

Doctor of Education
in Professional Leadership

by

Charmaine M. Hobin
August, 2012

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Abstract

Many critics dialogue about how students are being educated and whether or not current practices in educational organizations are preparing students for the 21st century. Campus leadership is an important catalyst to ensure that research-based reform initiatives are implemented with fidelity and make an impact on instruction in the classroom. However, it is not realistic to believe most practitioners, particularly school administrators, will be able to seek out research evidence in a serious manner, interpret the evidence, and use it in their day-to-day practice (Honig & Coburn, 2008; Nutley, Jung, & Walter, 2008).

This study used archival data which was collected from a larger study entitled, "A Survey to Examine the Work, Attitudes, and Perceptions of Public School Assistant Principals" (MacNeil, 2006). A survey was administered to assistant principals in the Gulf Coast region of Southeast Texas that resulted in a response from 371 campus assistant principals. A cognitive interview technique was used when collecting data for the survey. The study focused on the manner in which assistant principals viewed the utility and quality of research-generated knowledge and information sources for the technical knowledge they provided.

This study uncovered assistant principals' views on what examples of research-generated knowledge were applicable to their daily roles as assistant principals. Results from the study indicated that not all assistant principals could automatically think of examples of research-generated knowledge they found useful in their jobs. However, the

examples of research-generated knowledge provided by those assistant prinicpals who could automatically respond aligned well with what research shows are the current roles and responsibilities of today's assistant principals.

In addition, assistant principals gave relatively high ratings to specific information sources identified in the survey. Findings from the survey indicated that assistant principals valued professional books, workshops, and the Internet the most for the technical knowledge each of these information sources provided. Assistant principals also recognized other educational professionals as excellent sources of technical knowledge.

Finally, assistant principals offered insight regarding research read over a one-year period. While rating research read over a one-year period above average, assistant principals surveyed identified multiple barriers that exist regarding research-generated knowledge as well as specific suggestions for researchers to consider when choosing, conducting, and producing research-generated knowledge for assistant principals. Overall, the research generated an informed perspective of whether or not assistant principals utilize, value, and benefit from research-generated knowledge in the field of education.

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CHAPTER ONE

INTRODUCTION

There is much discussion about the flow of information in today's flat world (Friedman, 2005). This info-whelm age phenomenon draws attention to the realm of education, particularly the ability of the American education system to keep pace with constantly shifting expectations regarding knowledge and skill acquisition for its youth. Increased global competition creates even greater challenges for educational organizations (Taylor, 2010). The ability of public education institutions to successfully respond to the tests of a changing world context plays a critical role in whether the United States will continue to stay competitive in the global marketplace (Friedman, 2005).

Many critics dialogue about how students are being educated and whether or not current practices in educational organizations are preparing students for the 21st century. Much concern has been raised about the effectiveness of practices employed by schools to ensure that students are college and career ready. Employer needs of the 21st century will be extremely different (Taylor, 2010). The *Instructional Standards for Technology in Education (ISTE)* and *The 21st Century Partnership* specify that students will not only need to know content standards, but students will also need to be able to problem solve, think critically, understand and create using multi-literacy tools, and share these creations through web-based social networking (Brown & Adler, 2008). Furthermore, individuals will no longer be able to rely upon a single set of skills for the duration of one's career; the 21st century will demand the acquisition of new knowledge and skills on a continuous basis (Brown & Adler, 2008). A huge responsibility is placed on school leaders who are

at the helm of this effort to think about 21st century teaching and learning and how to operationalize needed change in schools (Ziegenfuss, 2010).

Statement of the Problem

The United States faces the problem that current practices within public education remain stagnant in spite of a plethora of large-scale reform initiatives (Taylor, 2010). Elmore (as cited in Taylor, 2010) argued that the issue with most reform initiatives is that the innovations concentrate on surface elements and rarely change the quality of the most direct influences such as classroom instruction for students. Campus leadership is an important catalyst to ensure that research-based reform initiatives are implemented with fidelity and make an impact on instruction in the classroom. According to Dixon (2000), it is crucial that educational leaders share their knowledge within organizations if those organizations wish to stay viable in the world economic picture.

However, it is not realistic to believe most practitioners, particularly school administrators, will be able to seek out research evidence in a serious manner, interpret the evidence, and use it in their day-to-day practice (Honig & Coburn, 2008; Nutley, Jung, & Walter, 2008). Arjomand (2010) conveyed that practitioners in the field of education have little time to access research because of their numerous responsibilities and incessant demands on their time. Moreover, school leaders may not be skilled at finding relevant research nor would they have the autonomy to change practice based on research evidence they may discover. To compound the issue, there is a lack of evidence on what makes interventions successful in increasing research use. Consequently, it is not apparent how school leaders and practitioners would put evidence that is known into useful practice (Arjomand, 2010).

Still, there is increased emphasis on the importance of informed school leadership and its influence on student achievement. Shaffer (2004, 2005) argued that all professions involve a certain way of doing, caring, being, and knowing—an epistemic frame. "If leadership is a key driver in changing school cultures, mindsets, and practices; then an expanded epistemic frame for educational leadership in the 21st century is necessary for leaders to act effectively" (Ziegenfuss, 2010, p.1). Administrative leaders in education must have access to useful and quality research-generated knowledge to be able to keep up with the most current information on effective practices in educational leadership. More importantly, campus administrators must see the relevance of the research available to them in order for the utility and quality of that research to be realized.

The influence of campus instructional leadership has expanded from being solely with the principal to a shared responsibility of both the principal and the assistant principal. According to Bartholomew and Fusarelli (2003), the role of the assistant principal is beginning to change; the role is evolving from an administrative assistant to a master teacher, staff developer, and supervisor. These developing responsibilities require assistant principals to remain current in their school leadership knowledge base. Therefore, it is important to establish the perceptions of assistant principals on research-generated knowledge, including the utility and quality of information sources.

Purpose of the Study

Principals, alone, cannot carry the burden of the increasing accountability-driven requirements and mandates resulting from the endless reforms calling for improvement in students' learning outcomes (Sun, 2011). Furthermore, Sun (2011) charged that assistant

principals are reliable sources to depend upon for direct involvement in instructional-related tasks such as teacher evaluation, instructional leadership, curriculum development, and innovation and research. Given the current critical role of the work of assistant principals and their impact on student achievement, it is imperative to understand the manner in which assistant principals approach research-generated knowledge.

The focus of this research study was to examine how administrators, in particular assistant principals, viewed the utility and quality of research-generated knowledge and various information sources to which they (assistant principals) had access. This study unveils assistant principals' views on what examples of research-generated knowledge are applicable to their everyday roles as assistant principals. Additionally, this study reveals what sources assistant principals, charged with a wide array of responsibilities, felt contributed to their professional growth. Finally, this study provides insight as to how assistant principals rated the quality of various types of information sources for the technical knowledge they provided. Overall, this research study generates an informed perspective of whether or not assistant principals valued, utilized, and benefited from research-generated knowledge in the field of education.

Research Questions

The research questions for this study are:

1. What examples of research-generated knowledge did assistant principals find useful in some aspect of their jobs?
2. What sources of information did assistant principals find most useful when searching for professional ideas? On a scale from 1 (lowest) to 10

(highest), how did assistant principals rate each of the following types of information sources for the technical knowledge they provided?

a) Professional meetings of state or national education associations;
b) Workshops;
c) Professional journals concerned with education;
d) Professional books concerned with education;
e) Professional bulletins from regional or national information sources;
f) Professional bulletins from district or state authorities;
g) Newsletters from professional organizations;
h) University or college courses attended for certification or an advanced degree;
i) Internet;
j) Other sources

3. On a scale from 1 (lowest) to 10 (highest), how did assistant principals rate the quality of educational research they read over a one-year period?
4. What would it take for them to rate it a 10?

Significance of the Study

This study has the potential to make significant contributions to the knowledge base in three areas. First, this study contributes to the field of research on assistant principals, which is currently minimal in comparison to research on the principal and other school leadership positions. According to Muijs and Harris (2003), research evidence about the leadership of other established school leaders (e.g., assistant or deputy heads) is relatively sparse. This is unfortunate since the role of the assistant "head" (principal) has evolved and represents a much stronger institutional presence in school

leadership. Harris (as cited in Muijs and Harris, 2003) added that this evolution is in response to the recognized need to distribute leadership more widely in order to secure long-term improvement in times of change. In essence, this research provides current perceptions of assistant principals specific to research-generated influences in responding to these times of change.

In particular, this study illuminates assistant principals' views on research-generated knowledge, especially in regard to the utility and quality of certain types of information sources as applicable to their daily roles as assistant principals. Specifically, an examination of assistant principals' views on research-generated knowledge is helpful in identifying whether the typical educational leadership information sources are viewed as useful and high quality by assistant principals in their roles as school leaders. Feedback from practicing assistant principals on challenges faced and strategies employed regarding the applicability of research-generated knowledge is valuable information not only for future researchers of educational topics, but it is also beneficial for policy makers, administrators, and other educators seeking to improve teaching and learning for 21st century students through the influence of assistant principals.

Secondly, because the role of the assistant principal historically has been an ambiguous one, this study provides data on what roles assistant principals envision themselves undertaking, in addition to the roles they play on a daily basis, concerning research-generated knowledge and its influence on campus leadership. Sun (2011) reported that assistant principals interviewed about their roles and responsibilities responded that they had increased involvement with instructionally focused tasks. Similarly, the data from this study shed light on what assistant principals experience as

they gain information and strive to keep updated on school leadership practices, including instructional guidance, for the benefit of their teachers and students.

The research data identify what research-generated knowledge and information sources assistant principals feel they need to possess in order to be effective educational leaders. The findings of this study provide implications for improving assistant principals' access to appropriate and useful research-generated knowledge and information sources. Moreover, this study assists senior leaders to make informed decisions regarding the use of funds in expanding the knowledge base of practicing assistant principals. Subsequently, professional development leaders at the district level are provided evidence based on what assistant principals view as relevant and worthwhile training.

Finally, the results of this research influence the development of school administrator preparation programs. Levine (2005) argued that "…many of the university-based programs designed to prepare the next generation of educational leaders are engaged in a counterproductive 'race to the bottom,' in which they compete for students by lowering admission standards, watering down coursework, and offering faster and less demanding degrees" (p.1). Principal preparation programs must be designed based on the understanding that the responsibilities of the building administrator have and will continue to change in conjunction with the various levels of educational demands and accountability from an array of origins (Riker, 2007). Feedback from assistant principals establishes the need for increased access to relevant research-generated knowledge during formal education for aspiring assistant principals. Through this study's results and recommendations, preparation programs for entry-level school

administrators may gain insight as to where to place increased focus for research-oriented coursework.

Organization of the Study

This research study is organized into five chapters. Chapter One provides the introduction, statement of the problem, the research questions, the purpose of the study, and the significance of the study. Chapter Two presents a review of the related literature; literature highlighting the importance of research-generated knowledge and data-informed decision making to educational leaders is explored. Decision-making is further revealed through a review of belief systems. Leadership literature is presented, outlining the influence school leaders have on student achievement. Next, the impact and changing nature of campus leadership is exposed through elaboration of and connection between the roles of the principal and the assistant principal as they relate to teaching and learning from past to present times. Finally, preparation programs for aspiring administrators are examined. Chapter Three presents the methodology of the research study. This chapter explains the research type, context of the study, participant selection and accompanying populations, data sources and procedures, and data analysis processes. Chapter Four presents the findings of the research organized around the research questions. Chapter Five summarizes the study, provides findings and discussion, recognizes limitations of the study, offers implications of the study, and, finally, presents conclusions and recommendations for further research.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter provides the findings for a literature review that creates a conceptual framework to guide subsequent phases of this study. It is organized into seven parts that discuss: (1) the importance of research-generated knowledge to educational leaders; (2) the importance of data-informed decision-making in education; (3) the complexities of decision-making as related to belief systems; (4) the impact of school leaders on student achievement; (5) the role and influence of the principal; (6) the role and influence of the assistant principal; and (7) a review of principal preparation programs.

Importance of Research-Generated Knowledge

There are two very important reasons for school leaders to use research-generated knowledge in decision-making. According to Honig and Coburn (as cited in Arjomand, 2010), research-generated knowledge increased student achievement, and it lessened the effects of political factors and other influences that took away from concentrating on improving teaching and learning. School districts and campuses can exert influence and generate a demand for research use among administrators and teachers. Transforming practice to use research is often determined by the social context of people's work (Levin, Sá, Cooper, & Mascarenhas, 2009). Although evidence shows it is difficult to change the behavior of most people, it is possible (Arjomand, 2010). Levin et al. (2009) asserted that a major piece in achieving these efforts is altering organizational routines and structures. However, as Levin (2004) stated, research is only one determining factor of human behavior, and the impact of research is influenced by larger social and political means. Thus, if the goal is to increase both organizational and individual capacity for

research use, a strategy to intensify research use in school systems requires cooperation between researchers, administrators, and educators (Arjomand, 2010).

All educators need access to new expert knowledge. According to Barth (1984), when asked how they (principals) found professional renewal, principals recounted informal activities like reading, conversations with colleagues, in-service programs, university coursework, and programs offered by national educational organizations such as the National Associations of Elementary and Secondary School Principals. McColskey, Altschuld, and Lawton (1985) found that principals who indicated that they relied more extensively on information were also more likely to do the following than those who relied less on information in their jobs: (a) perceive themselves as instructional leaders, (b) feel that they have some autonomy in the administrative hierarchy, (c) be open-minded, and (d) report having had greater training in social science research methods. Hartzell, Williams, and Nelson (1995) discussed a multitude of important areas for which a strong knowledge base is needed by assistant principals but for which, unfortunately, that knowledge base is practically nonexistent and rarely addressed in school administrator preparation programs. Specifically, Hartzell et al. (1995) asserted that assistant principals must have the ability to communicate with a variety of external agencies, understand how to handle intense conflict among staff members, and comprehend how to oversee student support services.

According to Wildman (1996), an understanding of the knowledge base administrators utilized was important for two reasons: (a) it should help determine an adequate level of response in addressing problems that arise in school leadership practice, and (b) it should help determine the relevance of a school administrator preparation

program. Leithwood (2002) professed the problems school administrators encounter were due to either internal workings of the school or external sources. He described internal workings of the school as: (a) teachers (e.g., assignment of teaching duties, conflict among teachers); (b) school routines (e.g., attendance, budget); (c) students (e.g., abuse, evaluation); (d) parents (e.g., communication, involvement in school); and (e) other (e.g., non-teaching staff, plant, special events). Leithwood (2002) described external sources as amounting for only 19% of the total problems encountered and consisted of the following: trustees, the state board, outside agencies (e.g., social service groups, community health groups), and other (not specifically described). This draws attention to the reoccurring internal challenges that arise within a school administrator's daily routine.

Wildman (1996) sampled 22 practicing public school administrators which consisted of 12 assistant principals, 7 principals, and 3 district level administrators, including 1 superintendent, all having five or fewer years of administrative experience. Focusing on internal problems, the entire sample of administrators spent: (a) 21% on teacher-related problems/decisions; (b) 13% on school routine-related problems/decisions; (c) 34% on student-related problems/decisions; (d) 11% on parent-related problems/decisions; and (e) 21% on other internal problems/decisions. As indicated, though school administrators may not have direct contact with students on a daily basis, they do have a direct impact on student success through their problem-solving and decision-making with and about students.

Breaking them down into the three categories of leadership, Wildman found that assistant principals spent: (a) 18% on teacher-related problems/decisions; (b) 9% on

school routine-related problems/decisions; (c) 45% on student-related problems/decisions; (d) 10% on parent-related problems/decisions; and (e) 18% on other internal problems/decisions. Principals spent: (a) 24% on teacher-related problems/decisions; (b) 17% on school routine-related problems/decisions; (c) 22% on student-related problems/decisions; (d) 11% on parent-related problems/decisions; and (e) 26% on other internal problems/decisions. District level administrators spent: (a) 24% on teacher-related problems/decisions; (b) 24% on school routine-related problems/decisions; (c) 10% on student-related problems/decisions; (d) 15% on parent-related problems/decisions; and (e) 27% on other internal problems/decisions (Wildman, 1996). Again, these findings support the direct influence that leaders, especially assistant principals, have on student success.

In order to effectively lead schools in a technology-rich world where internal and external conditions are more connected than ever, school leaders must expand their epistemic frame of school leadership. Assistant principals can do this by acquiring new knowledge as well as developing new skills and dispositions through an understanding of current research in 21st century teaching and learning. Some of these new areas include new skills for the 21st century, technology and the knowledge age, pedagogy and the learning sciences, types of change, systems thinking, and theories of action. With an expanded epistemic frame, assistant principals can work to extend their knowledge, skills, and attitudes beyond a traditional epistemic frame of educational leadership and be better equipped for influencing the changes, among internal and external stakeholders, required to bridge the gap between educational practice and research (Ziegenfuss, 2010).

Barriers to research-generated knowledge acceptance. In order to understand why research-generated knowledge may not be a top priority for assistant principals, it is important to investigate what barriers may impede the use of new knowledge. Barriers to research acceptance for practitioners include: the new knowledge does not fit with prior knowledge and belief; the new knowledge or practice does not fit with self-interest; and proposed change implied from the new knowledge does not seem feasible (Levin, 2008). Brown argued that, "if educational research aims to have some impact on practice, then its ideas and findings have to change educators' understandings" and that ideas have to enter the "common-sense discourse of communities" of practitioners and policy makers (as cited in Hargreaves, 1999, p. 243). Informal discourse in the realm of education can be leveraged to influence research acceptance, but there is still little understanding of how this takes place (Hargreaves, 1999).

In an interview at the American Educational Research Association (AERA) conference in 2008, Ben Levin and Charles Ungerleider, Canadian researchers in the field of knowledge mobilization, were asked to describe the biggest challenges in strengthening relationships among research, policy, and practice. They responded that one of the main challenges is not having the right research. Because most research production takes place at the university level, the context of production, what is researched, who does it, and how it is carried out can create a culminating barrier effect and, thereby, interfere in the utility of the research if the findings are not meaningful to potential users (Arjomand, 2010).

A second challenge is the inadequate systems and infrastructure to support research use in school systems. A culture of research use must be built through building capacity

in individuals and the organization to use research - a difficult task. Though people may be disposed to consider evidence from external research, most do not possess the knowledge they would need to evaluate the evidence. Thus, the key is to help decision makers and practitioners understand how to evaluate and apply evidence of various kinds of research in order to establish the support systems currently absent in school districts (Levin as cited in Arjomand, 2010).

Another barrier is that there are not enough associations between the context of research production and the context of use. Therefore, the research translating to practical application does not seem feasible. Levin (2004) noted the importance of third party or mediating agents to direct and mediate communication between those who produce research and communities of practice who are familiar with it but who would benefit from it.

Availability of research is yet another major barrier to research use (Honig & Coburn, 2008). The research available can be outdated and not publicly available. Many schools have web portals that are not managed well, and "many researchers and research institutions still have no organized approach to making their work readily available" (Cooper, Levin, & Campbell, 2009, p. 166). Also, websites containing research materials do not connect these materials with the varying needs of different audiences (Cordingley, 2008), making research less accessible to practitioners.

Just as students respond best to individualized instruction, teachers and administrators need personalized materials that are relevant to their professional context. Campus-based professionals may not have the time to delve into the research to find what is relevant (Arjomand, 2010). In addition, evidence often comes in a form that makes it

difficult to use for decision-making. There might be too much evidence for practitioners and administrators to understand, or schools might not have the technological infrastructure to sort through performance data in order to make sense of them and incorporate them into decision-making (Honig & Coburn, 2008).

Overcoming barriers. According to Dagenais, Janosz, Abrami, Bernard, and Lysenko (2008), research characteristics that education practitioners desire included**:** relevance, accessibility, usability, readability, and applicability. Cordingley (2008) pointed out that teaching is a practice that is practical and interpersonal, and practitioners need to "connect intellectually, practically, and emotionally with research knowledge and be able to see how they can apply this knowledge to their specific contexts" (p. 38). Cordingley (2008) offered suggestions for increasing the usability of academic writing such as the research should be clear, simple, short, and jargon-free; interventions and knowledge in action should be described in detail, with focus on both action and evidence; and evidence should be presented in the context of how it was used by practitioners in the related study and how it resulted in school improvement. Furthermore, the research methods should be summarized and suggestions for finding out more about the research should be offered (Cordingley, 2008).

Another issue is the need for practitioners to believe in the value of the research. Levin (2004) discussed the relationship between perceived quality of research and potential for utilization. "Research affects practice only as they [teachers and administrators] become convinced that the ideas or practice suggested will actually improve their work or lives in some way" (Levin, 2004, p. 5). Thus, research needs to make sense to practitioners and be relevant to daily practice. It is suggested that to

increase the relevance of research in daily practice, practitioners should be able to engage in the research or aspects of the distribution and implementation of research within their school system (Levin, 2004).

In summary, an author should be a facilitator of research and set forth to mitigate barriers by finding relevant and good quality research. In addition, researchers should tailor research directly to the needs of the practitioners and create short summaries that "make sense" of the research and that can be more easily used. Finally, if researchers want their research to be well-received by educators in the field, researchers should develop processes and systems within the organization to properly disseminate research in a timely and effective way in an effort to keep pace with the endless cycle of decision-making that campus school administrators encounter on a daily basis (Arjomand, 2010).

Transfer of research-generated knowledge. Levin (2008) professed that there is a vast amount of research being done in the field of education; but, there is little experience in learning how to transfer this knowledge into action and operation. There has been more interest in these issues in recent years, and different initiatives and strategies are being used; however, there is a lack of evidence on their value and impact (Levin, 2008). If school administrators, specifically assistant principals, do not see a way to transfer their knowledge gained, that new knowledge will likely get lost. In the case of the assistant principal, using the new knowledge refers to transferring it to others since the assistant principal is not directly instructing students. Therefore, it is important to note that the transfer of knowledge will require more time and effort on the part of the

assistant principal. Subsequently, the new knowledge must be accessible, relevant, useful, and high quality in order for it to be ready for acquisition and then transfer.

A core challenge of any organization is to create new knowledge through the integration of knowledge from different sources. The study of knowledge transfer is particularly important because the movement of knowledge from one place to another is key (Carlile & Rebentisch, 2003). According to Argote and Ingram (2000), knowledge transfer is defined as "the process through which one unit (e.g., individual, group, or division) is affected by the experience of another" (p. 152). Hence, the knowledge base as influenced by research-generated information gained by assistant principals, as well as all school leaders, can influence the flow of knowledge transfer in a school organization.

Szulanski (1996) revealed that knowledge transfer can be complicated by knowledge created barriers in transferring "best practice" from one site to another. Huber (1991) and Walsh and Ungson (1991) offered a process model that frames organizational learning and memory perspectives and includes the stages of acquisition, storage, and retrieval. Carlile and Rebentisch (2003) concluded that, given the acquisition-storage-retrieval cycle, how well storage of acquired knowledge is executed can affect the efficacy and/or the relevancy of what is retrieved. March (1972) declared, "good memories make good choices" (p. 427). Carlile and Rebentisch (2003) countered that bad choices could ensue if circumstances surrounding the original development have changed, thus, making the stored knowledge irrelevant and potentially creating problems when retrieved for reuse. With the constant change in education in an effort to stay current and make teaching and learning relevant to 21st century students, assistant principals must continually sift through the old knowledge to determine what to keep and

receive, then transfer the new knowledge in an efficient manner to avoid falling behind in leading teaching and learning initiatives on their campuses.

In addition, knowledge integration may become problematic when current frameworks of knowledge transfer and integration do not apply equally to both simple and complex knowledge integration tasks. Carlile and Rebentisch (2003) described complexity as a whole that is made of interrelated parts. Thompson (1967) explained that interrelationships or dependencies arise when groups must rely on each other to complete a task. Assistant principals must have access to research-generated knowledge as they navigate through the knowledge transfer cycle for varied departments that contribute to different disciplines of teaching and learning throughout the entire educational organization.

Carlile and Rebentisch (2003) further recognized that creation of new knowledge can be disruptive to existing relationships between domains of specialization and that increased time and energy may be required to establish a new shared language, method, or bank of artifacts that may collectively result in a solution (Carlile, 2002). In schools, human dynamics as well as individual grade level or department perspectives pose additional challenges for assistant principals when deciding what new knowledge is necessary to acquire and how to transfer newly acquired knowledge to benefit the school-community. Educational organizations are constantly facing the battle of how to ensure the transfer and implementation of new, useful information; therefore, it is important to understand that the need for transfer of knowledge is inherent in the acquisition of research-generated knowledge for assistant principals.

Importance of Data-Informed Decision-Making

A current trend of research-generated knowledge in education is the use of data to make sound decisions to positively impact teaching and learning. Historically, schools in the United States have ignored conducting methodical analysis of current trends, completing formal research, or preparing critical papers (Orlich, 1989). Moreover, according to Quigley (1995), data have not always been used to comprehend the impact of processes nor has it been used to understand the reason why students are not learning. However, with the increased focus on accountability today, data-driven decision-making is the inescapable future of educational administration (LaFee, 2002).

The emerging research on data-driven decision-making highlights the importance of reform efforts in school and district-level leadership (Park & Datnow, 2009). Research suggests that data-driven decision-making has the potential to increase student achievement (Alwin 2002; Doyle, 2003; Lafee 2002; McIntire 2002). Although the impact is mostly indirect, school leaders can make important contributions to student learning (Hallinger & Heck, 1996). Therefore, it becomes imperative that campus administrators establish the consistent use of data as a form of research-generated knowledge to inform their decision-making.

In an age of standards-based reform and accountability systems, the impetus for improved student achievement and the development of effective leadership practices in the United States has never been more substantial. The No Child Left Behind Act of 2001 (NCLB) requires educational leaders to analyze, interpret, and use data to make informed decisions in all areas of education, ranging from professional development to student learning. This policy lives on the assumption that the gathering and use of data

sustain continuous improvement efforts by helping to evaluate existing capacities, monitor progress, gauge the efficacy of programs, and update development plans (Earl & Katz, 2006).

However, data need to be actively used to improve instruction in schools, and individual schools often lack the capacity to implement what evidence suggests (Wohlstetter, Datnow, & Park, 2008). Prominent educational researchers have long criticized education as a field in which practitioners make decisions based on intuition, gut instinct, or trends (Slavin, 2002, 2003). Supporters of data-driven decision-making practices argue that effective data use enables school systems to learn more about their schools, determine strengths and weaknesses, identify areas in need of improvement, and help assess the effectiveness of programs and practices (Mason, 2002).

When school-level educators become knowledgeable about data use, they can more effectively review their existing capacities, identify challenges, and better plan for improvement (Earl & Katz, 2006). A national study on the impact of NCLB found that districts are indeed allocating resources to increase the use of student achievement data as a way to inform instruction in schools identified as needing improvement (Pinkerton, Scott, Buell, & Kober, 2004). Student achievement data can be used for various purposes, including evaluating progress toward state and district standards, monitoring student performance and improvement, determining where assessments converge and diverge, and judging the efficacy of local curriculum and instructional practices (Sullivan, 2010).

The goal of data-informed decision-making is to make the most of information available at the school level in order to improve classroom instruction and the educational

performance of students. Sullivan (2010) charged that organizations can be characterized as networks of contract-like relationships among individuals. Likewise, data-driven decision-making encompasses prescribed relationships between system-level and campus-level educators. These associations frame a definitive principal-agent problem: How can the system improve the likelihood that campus-based educators, entrusted with greater decision-making power over instruction, will engage in the ambitions of system-level educators? Emerging from the analysis is a set of criteria that apply to the design of any data-driven decision-making plan, regardless of the nature of the principal, school district, or the number of agents involved. Current events suggest that the intense focus on accountability will likely continue at all levels of the educational system. The principal-agent theory provides a framework for exploring how data-driven decision-making can be essential to improving school performance. When school personnel make good decisions, students benefit. When poor decisions are made, students suffer (Sullivan, 2010).

As campus leaders, assistant principals are expected to heed the charge for quality instruction, assessment, and evaluation in order to advance student achievement on their campuses. Fleishman and Williams (1996) posed three critical questions:

1. Are we doing for our students what we said we would?
2. Are students learning what we set out to teach?
3. How can we make improvements to the curriculum and/or teaching methods?

Fleishman and Williams (1996) further questioned whether the answers to these questions are found in data. Likewise, as brought to light in the realm of baseball in

Moneyball by Michael Lewis, many may question whether or not educators are using the right data. How school leaders formulate decisions related to the research-generated knowledge from data, both at the analysis level and the level of implementation, is a complex issue.

Decision-Making and Belief Systems

Over two decades after the infamous 1983 report, *A Nation at Risk*, proclaiming the dire need for improvement in the U.S. public education system, Graham (2003) asserted that three significant ideas continue to be at the forefront of American education reform: "1) Americans have an incoherent sense of purpose for their schools; 2) Changes in educational practice do not follow smoothly from changes in educational policy and 3) Formulating purpose, designing policy or changing practice takes much longer than one expects or wants" (p. vii). Additionally, both educational practitioners and educational policymakers are eager to reform, yet "...the adults responsible for providing it are not moving rapidly or efficiently enough to make the changes that would result in the improvement they seek" (Graham, 2003, p. ix). The challenge then becomes how to reconcile the increased focus on data-informed decision-making, a form of action research-generated knowledge, with how individual leaders' belief systems impact the interpretation of the data and the level of implementation deemed necessary to respond to the data.

When making decisions, educational leaders typically adhere to four fundamental decision-making models: rational decision-making, shared decision-making, strategic decision-making, and ethical decision-making (Massenburg, 2010). March (1994), Hoy (1995), and Snowden and Gorton (1998) described rational decision-making as involving

logical and deliberate actions drawn from the consideration of multiple options that abide by strict rules, guidelines, and policies. Shared decision-making represents consensus formed around shared goals and values of educational administrators and others within the organization (Johnson & Pajares, 1996; Snowden & Gorton, 1998). Snowden and Gorton (1998) distinguished strategic decision-making as a model that allows the school administrator to tap into the expertise and experiences of a select group of individuals from internal and external stakeholders in the school community. Finally, Shapiro and Stefkovich (2001) conveyed ethical decision-making as a model that represents the consideration of ethical dilemmas. This more complex model requires educational leaders to invest time in establishing the formal professional codes and standards of the field and then reconciling them with their own personal and professional codes of ethics (Shapiro & Stefkovich, 2001).

Lunenburg and Ornstein (1996) defined decision-making as the process of selecting from various alternatives or courses of action. In addition, understanding decision-making is essential to educational administration because the process of making choices plays a substantial role in motivation, leadership, communication, and organizational transformation (Lunenburg & Ornstein, 1996). Snowden and Gorton (1998) further defined decision-making as a procedure affected by one's knowledge base and personal variables through which a problem is presented. Solutions are carefully considered by evaluating the arguments for and against each solution. Ultimately, one solution is selected that is then put into practice and assessed (Snowden & Gorton, 1998).

Lamb (1986) described belief systems as "entrenched sets of perspectives, some interrelated and some not, which organize and order an individual's perceptual

environment" (p.81). Russell (2001) conveyed that an individual's behavior is stirred by his core beliefs. And, the core beliefs that leaders possess have the potential of affecting their meta-cognitive and cognitive processes and influencing their actions (Lord & Emrich, 2001). Literature on learning organizations and epistemological beliefs further justify exploring the behavior of leaders in the same way that teaching behaviors are examined, as these behaviors influence the day-to-day variables that impact the school's success (Tickle, Brownlee, & Nailon, 2005).

Research concerning the influence of epistemological beliefs on thinking and learning suggests that an individual's beliefs about the nature of knowledge and learning are linked to comprehension, meta-comprehension and meta-cognitive capacity, interpretation, and persistence (Brownlee, 2000). Posner, Strike, Hewson, and Gerzog (1982) proposed that epistemological beliefs about knowing and learning filter all other knowledge. Belenky, Clinchy, Goldberger, and Tarule (1986), suggested that individuals with more sophisticated epistemological beliefs are more likely to engage in personal reflection and analysis about their understandings and use of knowledge.

Brownlee (2000) found that the epistemological beliefs of student teachers could be influenced by their explicit reflection on their beliefs. Belenky et al. (1986) supported this finding, arguing that higher levels of thinking and reflection about one's actions can surface through a combination of two catalysts of knowing: relational (encouraging individuals to access their own experiences) and impersonal (encouraging individuals to seek the perspectives of experts). Tickle et al. (2005) further suggested that the study of personal epistemology has the potential to reveal a core set of beliefs and meta-cognitions that could be useful in studying leadership beliefs and meta-cognitive processes.

Therefore, it is conceivable that epistemological beliefs, as a set of core, measurable beliefs within an individual's belief system, could explain differences in leadership behaviors and support training considerations to develop epistemological beliefs.

Snowden and Gorton (1998) proposed that all leaders operate under situational constraints and personal variables. Situational constraints are circumstantial factors distinctive to a specific environment (e.g., school setting), and personal variables are unique to each individual leader (Snowden & Gorton, 1998). Yet, most leaders may not be aware of the degree to which their personal variables affect their decision-making, and they may not take the time to conduct the in-depth exploration necessary to make such discoveries about themselves and their leadership tendencies (Massenburg, 2010).

Cowdery (2004) and Johnson (2005) charged that educational leaders in school settings are largely a product of their culture; they are swayed not only by the expectations of the school community and the habits of their professions but also by their personal beliefs and experiences. Johnson (2005) warned that if leaders ignore their personal variables, they will compromise their ability to lead effectively. Massenburg (2010) suggested that this personal-professional imbalance could potentially contribute to the inability of school districts to achieve effective systemic change that would substantially improve the state of today’s U.S. public school education.

Essentially, the NCLB mandate attempts to address the breakdown of past reforms and the inability of local, state, and national leaders to bring about change (McQuinn, 2006). Gordon (2003) encapsulated this dilemma:

> A theme that emerges time and again...is the central role of teachers and administrators in school improvement. Too often reforms have focused on

> big picture issues----school governance, organization, curriculum, accountability, and so forth----without taking into account how decisions affect what happens on the front lines, where improvement is most needed. Because education is an enterprise focused on people, not products, the greatest challenge is to bring out the best in those who spend their days in schools themselves, one teacher and one student at a time. (p. 6)

Massenburg (2010) reinforced that focusing on the front lines where improvement is most needed to expedite optimum development of individual teachers and students may now be critical to tackling the challenges negatively impacting the educational system in America. The decisions made by administrators are key to the degree to which the state of education in the U.S. will be improved and to the extent that administrators are able to associate successfully with, relate to, and motivate teachers and students to achieve excellence (Massenburg, 2010). Therefore, exploring the decision-making process of educational leaders, including assistant principals, is crucial and essential.

Houston and Sokolow (2006) challenged leaders to think about what they want to think about, which could benefit the organization more than being reactive and thinking about what others want them to think about in the short term. The more intuitive leaders become, the more their natural inclinations lead them to the right choices for the entire organization (Houston & Sokolow, 2006; Sokolow, 2002). Similarly, Hassinger (as cited in Dixon, 2008) found that exposure to new ideas rarely has an effect unless the leader believes that the new idea meets an existing need and is consistent with their attitudes and beliefs. Senge (as cited in Sommervold, 2011) further supported these views:

> We learn best from our experience, but we never directly experience the consequences of many of our most important decisions…We tend to think that cause and effect will be relatively near to one another. Thus when faced with a problem, it is the 'solutions' that are close by what we focus upon. Classically we look to actions that produce improvements in a relatively short time span. However, when viewed in systems terms short-term improvements often involve long-term costs. (p.23)

As decision makers move from operational to managerial to strategic decision-making, paradigms and consequences shift. However, the background of the decision maker may not have expanded. For example, it may be challenging for a person trained to make decisions about second grade classroom management to generalize that training to entire districts. Educational leaders make decisions that impact themselves, their immediate staff, and the generations of learners who depend on the systems they lead. Arguably, education is operating in an antiquated system; the decision makers responsible for important and impactful decisions may or may not understand how to create solutions that will propel us into a collaborative 21st century (Sommervold, 2011).

Impact of School Leaders on Student Achievement

A sense of urgency is created with research supporting the claim that school leaders do impact the futures of students. Second only to classroom instruction, school leadership is the most important school-based variable affecting student achievement (Leithwood, Louis, Anderson, & Wahlstrom, 2004). The school leader affects student achievement in many ways, including playing a critical role in creating a school culture focused on learning and high expectations (Murphy, Elliot, Goldring, & Porter, 2006).

Barth (1986) suggested that the role of the school principal has been rediscovered, stating that behind every successful school is a successful principal. Berg and Nytell (1991) believed that school administrators play dual roles as managers and leaders in response to the direct influence and indirect control imposed on schools through laws and traditions. Bennis and Nanus (1985) identified a manager as a person who does "things right" and who has the charge to coordinate, whereas a leader is viewed as a person who does the "right things" through influence and guidance. Milstein (1993) compared the characteristics and attributes of managers and leaders using different sets of adjectives to describe them. Managers naturally administer, maintain focus on structure, rely on control, have a short-range perspective, ask how and when, focus on the bottom line, imitate, are "good soldiers," do things right, and accept the status quo. Leaders tend to innovate, are original, develop, focus on people, inspire, trust, have a long-range perspective, ask what and why, focus on the horizon, originate, are their own person, do the right thing, and challenge the status quo (Milstein, 1993).

Leithwood (2005) countered the typical delineation between management and leadership by pronouncing that the often stated distinction between doing things right (management) and doing the right things (leadership) is actually meaningless. He explained that in order to achieve success as a leader, one must simultaneously do the right things right. School leadership, from both formal and informal sources, helps to shape the nature of school conditions such as goals, culture, structures, and classroom conditions (e.g., the content of instruction, the size of classrooms, the forms of instruction used by teachers). One of the most striking implications aimed at describing how educational leadership influences student learning is the breadth and depth of knowledge

needed if leaders are to make significant contributions to student learning through their organizations (Leithwood, 2005).

Influence and Role of the School Principal

The principalship is an increasingly important position in our educational system. Principals, while serving as instructional leaders, must also fill the toughest management post in public education. The changing nature of the position demands that greater attention needs to be given to the preparation programs that train school administrators. SREB (2003) simply claimed, "If you want high-performing schools, hire principals who can lead them to success" (p.1).

The role of school principal has evolved over time. Principals were once teachers with added clerical and disciplinarian assignments (Egner, 1965). As schools expanded in size, both administrative and instructional details increased. The principal's teaching responsibilities began to take back stage as teachers, students, and parents looked to the principal to be an administrator (Egner, 1965).

During the early 1950s, new knowledge of how a child learns and discussions of ways the curriculum should be organized changed the role of the principal once again. An added dimension, leadership, received growing emphasis in content and structure, demanding administrative behavior that incorporated new and often inharmonious elements (Lipham, 1964). Lipham (1964) described leadership as "the initiation of a new structure or procedure for accomplishing an organization's goals and objectives or for changing an organization's goals and objectives" (p. 10).

Today, principals wear many hats. They are responsible for attaining organizational goals, maintaining integration of the organizational system, adapting to

forces in the organization's external environment, and establishing and maintaining cultural patterns (Sergiovanni, Burlingame, Coombs, & Thurston, 1992). The public generally views the principal as the head figure ultimately responsible for the school (Strahan, 1994). Today's principal must be multi-dimensional: an instructional leader; a morale builder; a liaison between central office, the school staff, and the community; and a public relations coordinator. Principals have a critical role in creating and maintaining effective school programs for all students, overseeing all aspects of the curriculum, and implementing plans for students with a range of educational needs (Burrello, Schrup, & Barnett, 1992).

Recent research has affirmed the importance of the leadership of school principals to successful school improvement and student learning, yet many school systems are experiencing considerable difficulty in attracting enough quality candidates to fill this critical position (Gronn & Rawlings-Sanaei, 2003). In many of these systems, new principals are drawn predominantly from the ranks of vice-principals (Marshall & Mitchell, 1991). Therefore, it is axiomatic that if the current shortage of principals needs attention, a useful avenue of research would be to examine more closely the role, aspirations, and job satisfaction of vice-principals (Kwan & Walker, 2008).

The current shortage of principals can be viewed from a number of perspectives (Pounder, Galvin, & Shepherd, 2003), the most fruitful focusing on various aspects of the vice-principalship. Two of the more promising angles include building a deeper understanding of how vice-principals perceive their present jobs, and their satisfaction, or lack thereof, with what they do (Cranston, Tromans, & Reugebrink, 2004; Gronn & Rawlings-Sanaei, 2003; Williams, 2003). Both angles probe feelings about pursuing the

principalship and the adequacy of the various forms of professional learning and training that are offered along the way (Walker, Stott, & Cheng, 2003). For example, Draper and McMichael (2003) affirmed the importance of skill accrual and work-based learning. Thus, as the potential pool of principal candidates is predominantly made up of vice-principals, an understanding of the vice-principal's duties, roles, and feelings would better inform policy makers and practitioners regarding the formulation of training and development strategies for vice-principals aspiring to be principals (Kwan & Walker, 2008).

Influence and Role of the Assistant (Vice-) Principal

While the importance of the principalship in school effectiveness has attracted much scholarly attention, the role and position of the assistant principal (or vice-principal) has been studied minimally (Weller & Weller, 2002). Assistant principal and vice-principal are used interchangeably throughout this paper and represent the next in command under the principal at the school campus level. Daresh (2002) regarded the principalship and assistant principalship as the two formal administrative positions existing at the campus level.

A comprehensive analysis of vice-principals was conducted by Hausman, Nebeker, and McCreary in 2002. They developed a questionnaire to investigate the degree of vice-principal involvement in seven work dimensions. These dimensions included instructional leadership; personnel management; interaction with the educational hierarchy; professional development; resource management; public relations; and student management. Based on the responses of 125 vice-principals (a 42% response rate), Hausman et al. (2002) found that the three dimensions to which vice-principals devoted

the most time, in rank order, were student management, interaction with the educational hierarchy, and staff management.

According to Matthews and Crow (2003), the history of the assistant principal is quite vague. Glanz (1994) suggested the role of assistant principals might have emerged from two teacher supervisory roles: a special supervisory role to help less experienced teachers in subject matter mastery and a general supervisor role to assist the principal in logistics operations of the school. Glanz (1994) believed that, later, the general supervisor became the primary assistant to the principal, and the special supervisor role disappeared in most schools during the 1930s. By the 1940s and 1950s, the literature more accurately reflects the relationship between the principal and the general supervisor by using the title, "assistant principal" (Glanz, 1994). Kelly (1987) suggested that the assistant principal's role was not intended to change the structure of the principal's job; rather, it was meant to give the principal more time for instructional leadership by sharing the workload. The assistant principal's part of the workload was attending to administrative and management details, those activities that were essential but could be carried out by someone other than the principal.

In most places, the management role and responsibilities of vice-principals are not clearly defined (Garrett & McGeachie, 1999). Principals largely determine the job assignments of vice-principals (Marshall, 1992). According to Marshall (1992), the position of vice-principals is virtually ignored and sometimes maligned. Many scholars, therefore, concluded that the definition of the role of vice-principals has been, traditionally, vague, diversified, or virtually impossible because it has to be flexible enough to accommodate the needs and management philosophy of individual schools.

The literature since the 1970s uses metaphors describing the assistant principal as "subordinate to the principal," "parallel with the principal," "henchman," and "specialist." However, Matthews and Crow (2003) described the assistant principal's role as a mirror image of the principal's role in that both usually function in a parallel fashion, and the seven role conceptions of principals and vice-principals are learner, mentor, leader, manager, politician, supervisor, and advocate. Research during the past 20 years through an ERIC search showed that while studies on vice-principals' relationship with principals are rare and indirect, the relationship between the two portrayed in the literature can be summarized as chief-assistant, partners (co-principals), and mentor-learner (Matthews & Crow, 2003).

Fulton (1987) described the basic competencies vice-principals need to develop if they are to function as principals effectively. Competencies appear under four headings: administrative relationships, teacher relationships, student relationships, and community relationships. Holman (1997) also noted the key qualities of an effective vice-principal, which include organizational skills, basic accounting knowledge, interpersonal skills, dependability, strong work ethic, effective problem-solving skills, leadership skills, written communication skills, "quick-study" capability, and respect and regard for others. Hartzell et al. (1995) argued that vice-principals who can successfully influence principals to behave in ways that support their goals increase their chances of achieving the desired results.

Wildman (1996) explained that, as one would predict, assistant principals spend much more of their time on student problems/decisions, especially student discipline, than principals; principals spend more of their time on student problems than do district

administrators. Wildman further confirmed that, as experience would suggest, the opposite pattern was found with regard to school routine-related problems/decisions. District level administrators spend more time with school routine-related problems/decisions than principals, and principals spend more time with school routine-related problems than assistant principals.

Overall, Wildman (1996) analyzed 595 problems/decisions and categorized them into 17 knowledge base domains: foundations; research methods; learning theory; curriculum; student services; special programs; personnel; education management; education leadership; human relations; systems analysis; site-based leadership; school law; school finance; public relations; school facilities; and district leadership. The majority of the 305 problems/decisions that were addressed by assistant principals fell into the student services (28%) and human relations (11%) domains (Wildman, 1996).

The assistant principal holds a critical position in education organizations for several reasons. Ideally, a vital link between the principal and teachers, parents and students, and an extension of the principalship in promoting effective, quality-oriented outcomes, the assistant principal has the potential to affect great change on a campus. In no other position does one walk such a fine line between the maintenance and survival needs of the school and the needs and demands of the students, teachers, and the principal (Weller & Weller, 2002).

Principal Preparation Programs

The principalship is an increasingly important position in our educational system. Principals, while serving as instructional leaders, must also fill the toughest management position in public education. The changing nature of the position demands that greater

attention needs to be given to the preparation programs that train school administrators (Pajardo, 2009). Leithwood (2005) professed that documented instances of troubled schools being turned around without talented leaders are hard to find; consequently, while other factors contribute to such turnarounds, effective leadership is the main channel of change. "After two decades of depending mostly on state academic standards, classroom teachers and statewide tests to help raise student achievement, policy-makers now realize that schools are unlikely to show substantial improvements without highly effective principals" (SREB, 2007, p.1). Hence, the growing criticism that university educational leadership programs do not adequately prepare master's degree candidates to effectively lead schools (Cunningham & Sherman, 2008; Levine, 2005) is concerning.

Barth (1986) charged that given an increased awareness of the school principal's influence, strengthening the pre-service training of aspiring principals as well as improving and increasing professional development opportunities for practicing principals are two major priorities. Duke (as cited in Alvy and Robbins, 2009) asserted that the early experiences of an individual in a position can be a potent shaper of that person's subsequent performance. Alvy and Robbins (2009) claimed that educational leadership courses alone cannot prepare one for all of the workplace realities of the principalship. But, if adequate efforts are implemented, an individual's early experience in a particular position can first be shaped by the preparation for that position which is multifaceted and includes knowledge and skills, mentoring, and on-the-job training in tandem with educational leadership coursework (Alvy & Robbins, 2009).

State and local districts acknowledge the growing complexity of the principalship. Many school systems across the country have developed and operate their own principal

academies to prepare school leaders. These academies are addressing the practitioner competencies and training that candidates need to lead schools in these districts. Levine (2005) stated, “...the majority of the programs that prepare school leaders range in quality from inadequate to poor” (p.1). Anticipating an increasing need for school principals and superintendents and concerned about the quality of educational administration programs, many states have created alternative certification pathways to prepare candidates for administrative jobs. In addition, states have encouraged for profit institutions, non-profits, and school systems to launch programs to prepare administrators (Levine, 2005).

Marzano, Waters, and McNulty (2005) concurred that an effective principal is a necessary precondition for an effective school. Furthermore, regardless of the theory used to explain it, leadership has been intimately linked to the effective functioning of complex organizations (Marzano et al., 2005). Therefore, it is important that effective preparation models are documented and shared. Additionally, districts and universities must collaborate to successfully recruit, select, and prepare aspiring principals who will eventually be hired and serve as school principals "with the knowledge and skills to lead schools to excellence" (SREB, 2003, p.1).

Despite the critical role of principals, federal investments in school leadership, primarily through a school leadership program funded at $29.2 million in fiscal year 2010, has been minimal. In fact, high-poverty and high-minority schools are more likely to be led by principals who are weaker on various quality measures (e.g., leadership ratings from staff and years of experience) than those in lower-poverty schools (Clotfelter, Ladd, Vigdor, & Wheeler, 2007; Horng, Kalogrides, & Loeb, 2009).

In a survey by Public Agenda, 69% of principals and 80% of superintendents

described the leadership training offered by schools of education to be out of touch with the realities of today's districts (Farkas, Johnson, Duett, & Foleno, 2001). This need has also been expressed at the district level where superintendents, "...express concerns about the skills of their current principals, and many acknowledge difficulties in finding effective, well-qualified principal applicants" (Farkas et al., 2001, p.22). Recently, schools have been facing the dilemma of principal shortages. There is increasing international anecdotal and empirical evidence that attracting suitably qualified people to become school principals is becoming increasingly difficult (Barty, Thomson, Blackmore, & Sachs, 2004). In this age of high-stakes accountability, a disturbing majority of university-based principal preparation programs still present antiquated curriculum laden with courses on management and administration. These programs do not provide aspiring principals the means to develop the competencies they need to lead a new generation of highly skilled and motivated teachers (SREB, 2007).

It is imperative that we understand what research-generated knowledge assistant principals find useful to their roles as assistant principals because they are likely to develop their leadership capacity based on the information sources they currently access. According to Matthews and Crow (2003), most principals were assistant principals immediately preceding their current positions. It is a common understanding that the assistant principalship is a "stepping-stone" to an administrative career (Austin & Brown, 1970; Marshall, 1992). Forty to fifty percent of all assistant prinicpals advance up the administrative ladder (Austin & Brown, 1970). Chan, Webb, and Bowen (2003) revealed that 77% of assistant principals report that they aspire to the principalship. If we are to prepare assistant principals well for the principalship, we must have a thorough

understanding of their perceptions of the utility and quality of research-generated knowledge.

CHAPTER THREE

METHODOLOGY

Chapter Three describes the methodology of this study. This chapter includes the following subsections: (1) introduction; (2) research design; (3) variables; (4) participants; (5) instrument; (6) data collection procedures; (7) data analysis; (8) cognitive interview techniques; (9) intercoder reliability; and (10) emerging themes.

Introduction

This study was part of a large study of assistant principals in the Gulf Coast region of Southeast Texas conducted by a large public university located in that region. The Assistant Principal as Successful Leader Project by Dr. Angus MacNeil aimed to strengthen the preparation of practicing assistant principals by understanding what issues and challenges assistant principals faced on a daily basis. The data gathered through this project had a direct impact on the assistant principal preparation/certification programs within the university's master's degree program, along with continuing education programs for current practicing school administrators. The Assistant Principal as Successful Leader Project (MacNeil, 2008) was a traditional quantitative survey to study assistant principals' attitudes and perceptions as related to school leadership.

Research Design

The quantitative survey portion of this project examined multiple facets of the job of the assistant principal which included parental involvement, student discipline, teacher supervision, obstacles and frustrations, leadership, and usefulness of research in practice. This research concentrated solely on the section of the survey dealing with assistant principals' views on research-generated knowledge and information sources. While The

Assistant Principal as Successful Leader Project (MacNeil, 2008) was predominately quantitative survey research, the research-generated knowledge section of the survey consisted of a combination of open-ended and Likert-scale questions. The open-ended questions allowed for a degree of interpretive analysis related to qualitative research (Yin, 2003). Hence, this study used a mixed methods approach of quantitative as well as qualitative analysis and descriptive statistics to address the following research questions:

1. What examples of research-generated knowledge do assistant principals find useful in some aspect of their jobs?
2. What sources of information do assistant principals find most useful when searching for professional ideas? On a scale from 1 to 10 (highest), how do assistant principals rate each of the following types of information sources for the technical knowledge they provide?
    a) Professional meetings of state or national education associations;
    b) Workshops;
    c) Professional journals concerned with education;
    d) Professional books concerned with education;
    e) Professional bulletins from regional or national information sources;
    f) Professional bulletins from district or state authorities;
    g) Newsletters from professional organizations;
    h) University or college courses attended for certification or an advanced degree;
    i) Internet; and/or

j) Other sources (please explain)

3. On a scale from 1 to 10 (highest), how do assistant principals rate the quality of educational research they have read over a one-year period?
4. What would it take for them to rate it a 10?

Variables

The independent variables in this study included age; gender; ethnicity; years as assistant principal; years in education; highest degree earned; district location; grade levels in school; school size; school demographics; and campus accountability rating. The participating assistant principals were the respondents. The dependent variables were the assistant principals' responses to the four questions on assistant principals' perceptions of research-generated knowledge.

Participants

Responses were obtained from 371 campus assistant principals. The survey represented the views of public school assistant principals. Respondents included 261 female and 110 male principals with an ethnic breakdown of approximately 51% Anglo, 25% African American, 19% Hispanic, 3% Asian, less than 1% American Indian, and 2% unreported. Ages of the respondents ranged from under 30 to over 63. Tables 1-3 summarize the participants' genders, ethnicities, and ages.

Table 1

Frequencies and Percentages of Assistant Principals by Gender

Gender	*n*	%
Female	261	70.35
Male	110	29.65
Total	371	100.00

Note. N = 371

Table 2

Frequencies and Percentages of Assistant Principals by Ethnicity

Ethnicity	*n*	%
White	190	51.21
African American	93	25.06
Hispanic	70	18.87
Asian/Pacific Islander	11	2.96
American Indian	1	.30
Unreported	6	1.60
Total	371	100.00

Note. N = 371

Table 3

Frequencies and Percentages of Assistant Principals by Age Range

Age Range	*n*	%
< 30 years	21	5.66
31-37 years	112	30.19
38-45 years	103	27.76
46-55 years	92	24.81
56-62 years	36	9.70
> 63 years	5	1.36
Unreported	2	.52
Total	371	100.00

Note. $N = 371$

The majority of the respondents (344) possessed a master's degree, 14 held a bachelor's degree, and 13 earned doctorate degrees. Participants in the survey had been working in some capacity in education for a mean of 16 years and in their current position of campus assistant principal for a mean of five years. More than half of the survey's respondents were in the position of assistant principal for less than five years. Tables 4-6 illustrate assistant principals' degrees, years of experience in the field of education, and years of experience as an assistant principal.

Table 4

Highest Degree Earned by Assistant Principals

Degree Earned	*n*	%
Bachelor	14	3.77
Master	344	92.72
Doctorate	13	3.50
Total	371	100.00

Note. N = 371

Table 5

Years of Service in Education by Assistant Principals

Years of Service in Education	*n*	%
0-5 years	7	1.89
6-10 years	98	26.42
11-15 years	89	23.99
16-20 years	61	16.44
> 20 years	89	23.99
Unreported	27	7.28
Total	371	100.00

Note. N = 371

Table 6

Years of Service as an Assistant Principal

Years of Service as an Assistant Principal	*n*	%
0-5 years	236	63.61
6-10 years	90	24.26
11-15 years	26	7.01
> 16 years	11	2.96
Unreported	8	2.16
Total	371	100.00

Note. $N = 371$

The 371 responses included assistant principals from 101 high schools, 90 junior highs, 168 elementary schools, and 10 mixed-grade or charter schools. For the purpose of this study, high schools were defined as those serving either grades 9-12 or grades 10-12. Junior highs were defined to include schools serving any mix of grades six through eight, thereby including intermediate, middle, and junior high schools in this category. Elementary schools were defined as those serving pre-kindergarten through grade five. In most of the study's districts, high schools encompassed grades 9-12. However, some districts included grade nine in the junior high. Similarly, most of the districts in the study had elementary schools that served students through grade five. A few districts placed grade five in their middle schools. Due to the varied treatment of grades five and nine by individual school districts, students in grade five and grade nine were placed into one of two categories. In all cases, the categorization of the school as elementary, junior

high, or high school was based on the majority of the students served and guided by the actual name of the school. These characteristics are illustrated in Table 7.

Table 7

School Characteristic by Number of Schools

Number of Schools	*n*	%
Elementary schools	168	45.60
Junior high schools	90	24.30
High schools	101	27.30
Mixed-grade/charter schools	10	2.72
Unreported	2	.08
Total	371	100.00

Note. $N = 371$

Respondents served on campuses ranging from elementary through high school. Most of the schools' (191) reported locations were in urban areas, 156 were reported to be in suburban areas, and 12 were reported to be located in rural areas. Within this sample, 56% of rural students, 54% of suburban students, and 78% of urban students were from low-income families, as evidenced by participation in the state's free and reduced price school lunch program. Student enrollment reported among these schools had a mean of 1,258 students, ranging from a mean of 2,315 students for high schools to a mean of 773 students for elementary schools. These attributes are represented in Tables 8 and 9.

Table 8

School Characteristic by Location

School Location	*n*	%
Rural	12	3.23
Suburban	156	42.05
Urban	191	51.49
Unreported	12	3.23
Total	371	100.00

Note. $N = 371$

Table 9

School Characteristic by Mean Number of Teachers and Students

	Teachers	Students
	M	*M*
Elementary schools	58.44	773.00
Junior high schools	69.00	1115.57
High schools	143.97	2315.28
Unreported	--	--
All schools	83.42	1258.27

All public schools in Texas are rated by a state accountability system based on student achievement, attendance, and dropout rates. In addition to calculating each

school's total achievement level, the state also calculates the achievement levels for significant student sub-populations within the school when determining a school's rating. The state uses the following four categories of ratings: *Exemplary*, *Recognized*, *Academically Acceptable, and Academically Unacceptable*. In the study's survey, *Academically Unacceptable* was represented by *Low Performing.* Assistant principals were asked to report their schools' accountability ratings in the survey. Assistant principals' reports of their respective schools' ratings indicated that there were 35 Exemplary, 102 Recognized, 189 Acceptable, and 16 Low Performing schools represented in the survey. Accountability ratings were not available for 29 of the schools included in the survey's results due to the accountability requirement differences for charter schools. The accountability ratings are represented in Table 10.

Table 10

School Characteristic by Accountability Rating

Accountability Rating	*n*	%
Exemplary	35	10.23
Recognized	102	29.82
Acceptable	189	55.27
Low Performing	16	4.68
Total	342	100.00

Note. $N = 342$. Accountability ratings were not available for 29 of the schools included in the survey's results due to the accountability requirement differences for charter schools.

Instrument

This study was comprised of responses to four questions concerning how assistant principals viewed research-generated knowledge and was a portion of a larger survey instrument that addressed a variety of aspects of the assistant principalship. The survey instrument was initially developed to provide clinical experience for students in the Master's of Education Leadership program. Use of an open-ended survey/questionnaire provided a uniform framework for the students to have meaningful interaction and dialogue with assistant principals. The overall survey instrument includes 115 items, 22 of which addressed the assistant principals' background and school demographics. In addition, 62 questions are Likert-scaled items, and 31 items are open-ended questions allowing for qualified responses.

Two of the research-generated knowledge questions were open-ended and designed to encourage respondents to elaborate on their answers. Two questions were designed primarily using a Likert-type scale, ranging from a low level rating (1) to a high level rating (10). The first Likert-scale question asked assistant principals to rate the level of usefulness of nine specific types of information resources and permitted an open-ended identification of a tenth type so the responder had the option of explaining a source not included in the given list. The last Likert-scale question asked the assistant principals to rate the quality of the educational research read over a one-year period and extended the response opportunity in the final question by asking the respondent what it would take to rate that research a 10. Employing open-ended items (or open-ended components of items) in the research-generated knowledge section of the survey allowed participants to

answer the questions in a detailed fashion without being restricted to a set of pre-determined answers (Bradburn, Sudman, & Wansink, 2004).

In the particular section that involved research-generated knowledge, the following questions were outlined and posed to the participants:

1. Can you think of an example of research-generated knowledge which you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge.

2. What sources of information do you find most useful when looking for professional ideas? On a scale from 1 to 10 (highest), how would you rate each of the following types of information sources for the technical knowledge they provide? (A Likert-designed question with response choices including: professional meeting of state or national education associations; workshops; professional journals concerned with education; professional books concerned with education; professional bulletins from regional or national information sources; professional bulletins from district or state authorities; newsletters from professional organizations; university or college courses that you attended for certification or an advanced degree; Internet; other sources (please explain).

3. On a scale from 1 to 10 (highest), how would you rate the quality of educational research that you have read over the last year?

4. What would it take for you to rate it a 10?

Data Collection Procedures

Designers of the survey considered various options for administering the survey. Due to the long and intricate format of the survey, disseminating the survey by mail was

eliminated. Designers were also concerned that the likelihood of busy, working assistant principals responding clearly and completely to a detailed survey was low. Consequently, designers of the survey encouraged face-to-face cognitive interviews, a technique that would encourage sustained motivation from the respondent in completing the survey and afford the ability for the interviewer to probe deeper for information and to clarify any responses that were ambiguous. Cognitive interview techniques (Willis, 2005) maximize the amount of reliable information that the interviewee recalls; thereby, the technique encourages the interviewee to think about the events in different sequences and from different perspectives. Generally, cognitive interview methods reflect a theoretical model of the survey response process that involves four stages: comprehension or interpretation, information retrieval, judgment formation, and response editing (Beatty, 2004). This requires that the respondent must first understand the question, recall information, decide upon its relevance, and finally formulate an answer in the format provided by the interviewer. One cognitive interview technique is to ask respondents to verbalize their thoughts while answering survey questions (i.e., think aloud). In recent years, cognitive interviewing has relied more heavily upon verbal probes about the interpretation of questions and recall strategies (Beatty, 2004).

Graduate students in the Master's of Educational Leadership program were asked to administer the survey as part of a core course requirement for the program and for the supporting state principal certification. The survey was administered over a period of 18 months with different groups of graduate students administering the survey each semester during that time period. Students taking part in the survey project were familiarized with

the survey instrument and the overall goals of the study. Each student was required to interview four assistant principals. Since some of the interviewers were from the same district as some of the respondents, and in a few cases, even the same school, there was some overlap in the assistant principals surveyed. Additionally, students were able to choose which assistant principals they interviewed. This element of choice may have resulted in students interviewing assistant principals with whom they may have had a prior relationship. The pre-existing relationship may have created a more relaxed and open interview in which the interviewee was more at ease when providing responses. Implications of allowing a sample of convenience are discussed in the limitations of the study in Chapter Five.

Data Analysis

The goal of this study was to examine the perceptions of assistant principals in regards to research-generated knowledge. Research Question One contained elements of quantitative and qualitative data. The question asked, "Can you think of an example of research-generated knowledge that you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge." Respondents had the option of answering "No," "Yes," or "Yes" with elaboration. There was also a chance that the respondent may have responded in vague, irrelevant terms, hence, lacking meaningful elaboration. If the respondent answered "Yes," the second part of Research Question One allowed for more descriptive information.

Research Questions Two and Three provided a more concrete response format, although the end of Question Two provided the opportunity for descriptive responses at the respondent's discretion. The second question read, "What sources of information do

you find most useful when looking for professional ideas? On a scale from 1 to 10 (highest), how would you rate each of the following types of information sources for the technical knowledge they provide?" The first part of Research Question Two was quantitative. However, the last item listing the information sources provided an "Other sources (please explain)" option. Research Question Three read, "On a scale from 1 to 10 (highest), how would you rate the quality of educational research that you have read over the last year? This results in purely quantitative data. Research Question Four, "What would it take for you to rate it a 10?" probed the respondent to elaborate on what it would take to rate research accessed over the past year a 10 (the highest rating). Again, this provided an opportunity for a qualitative response as an extension to the initial quantitative question. According to Rosenthal and Rosnow (1991), descriptive research encourages the "careful mapping out of a situation or set of events in order to describe what is happening behaviorally" (p.10). In this research study, descriptive data was provoked, examined, and interpreted to better determine what factors impacted the assistant principals' responses to the research questions focused on the utility and quality of research-generated knowledge.

Cognitive Interview Techniques

Willis (2005) discussed two specific types of cognitive interview techniques: (a) the think-aloud approach and (b) the verbal probing. In the think-aloud approach, the interviewer poses a pre-scripted question and then simply records the subject's response in detail. This technique tends to be used for evaluating the validity of survey questions in their early stage of development. The latter technique involves a more interactive

dialogue between the interviewer and subject in which follow-up questions are used to obtain additional details and clarification regarding the responses. Some of the prompts used in verbal probing are simple exhortations such as "…explain" and "tell me more about …" (Willis, 2005). The benefit of using cognitive interviewing as opposed to a standard survey technique is that the resulting data contains the type of insights typically afforded by qualitative case studies and interviews, yet it still retains the quantitative characteristics of the traditional survey (Willis, 2005).

Unfortunately, this method is time-consuming to administer. Nonetheless, the trade-off is a comprehensive product in the end. An added benefit of the cognitive interview approach is that it allows interviewers to verify that the individual being interviewed has a similar understanding of each question's intent, which addresses two general criticisms of the validity and reliability of survey research (Desimone & Le Floch, 2004).

The cognitive interview protocol in this study had the students in the university's Master's of Educational Leadership program administer the survey. One of the classes was a course required for the M.Ed. and for principal certification. The class was designated to serve as the data-collection component. The students in that class were given the assignment of administering the survey to a minimum of four assistant principals. During the process of the class, the administrators were familiarized with the survey instrument and the goals of the study. Furthermore, the students were trained in both traditional survey and cognitive interview techniques prior to contacting the subjects. A portion of each student's grade in the class was based on the completion of the required number of surveys. This helped to increase the commitment from the

administrators. For convenience, the students were allowed to choose which assistant principals they would interview. The goal was to select administrators from the same district in which they worked. This connection helped to ensure the assistant principals' commitment by utilizing the respondents' role in mentoring and developing future assistant principals.

Intercoder Reliability

Intercoder reliability is the degree of agreement among raters. It provides a score of how much homogeneity, or consensus, there is in the ratings given by each of the judges. It is useful in refining the tools given to human judges by determining if a particular scale is appropriate for measuring a particular variable, as in the instance of each of the surveyed items in this study. The participants' responses were provided to five different judges to see if the various raters agreed on the classification of responses. If the raters did not agree, the raters dialogued to reach consensus of final classifications and themes. The following details the classification process for Research Question One, Research Question Two, and Research Question Four; however, the data from each question is further broken down in Chapter Four.

Emerging Themes

The first step in working with the data in Research Question One, Research Question Two, and Research Question Four was to identify, categorize, and code themes that emerged among the responses. The open-ended nature of these three questions gave the respondents some liberty and flexibility and produced a variety of responses. These responses were classified according to their commonalities, and they provided a collective view of the participants' perceptions concerning research-generated

knowledge, information sources, and research read over a one-year period. After emerging themes were identified, the researcher operationally defined them. Responses were categorized within each operational definition and fell under one discrete category. The classification of the open-ended responses from the three questions allowed for a mixed method of analysis. The qualitative data were descriptive information from the participants that were documented through their elaborated responses to the open-ended questions. The details provided in these open-ended responses helped to create a richer and broader picture of the study.

CHAPTER FOUR

RESULTS

Introduction

Chapter Four presents the results of the research study. The first part of the chapter analyzes the responses of the assistant principals for the four research questions. The responses for Research Question One revealed whether or not assistant principals found research-generated knowledge useful in their jobs as assistant principals; and, if so, what specific examples of research-generated knowledge they found useful. This question contained quantitative and qualitative data elements.

The question asked, "Can you think of an example of research-generated knowledge that you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge." Respondents answered in one of the following ways: "Yes," "Yes" with elaboration (a "Qualified Yes"), "No," or "Not Applicable." If the respondent answered "Yes," the second part of Research Question One allowed for more descriptive information, but the respondent did not always elaborate. Therefore, an "Unqualified Yes" response was noted by the respondent. Many respondents did not provide a response and left the space blank. At times, the respondent answered in vague, irrelevant terms, hence, lacking meaningful elaboration. Both of these types of responses are described as "No Response/Unanswered."

Research Question Two resulted in a more concrete response format, although it did provide an option for an additional alternative response if the options listed were not comprehensive in terms of sources the respondent found useful in the job of the assistant principal. The second question read, "What sources of information do you find most useful when looking for professional ideas? On a scale from 1 to 10 (highest), how

would you rate each of the following types of information sources for the technical knowledge they provide?" Research Question Two is primarily quantitative; however, the last item on the listing of information sources provided an "Other sources (please explain)" option that allowed for a qualitative analysis.

Research Question Three read, "On a scale from 1 to 10 (highest), how would you rate the quality of educational research that you have read over the last year?" This question is purely quantitative. As a follow-up to Research Question Three, Research Question Four read, "What would it take for you to rate it a 10?" Since Research Question Four probed the respondent to elaborate on what it would take to rate research accessed over the past year a 10 (highest rating), it allowed for a qualitative analysis of the response.

Research Question One

Can you think of an example of research-generated knowledge that you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge.

The participants offered one of the following responses: "Yes," "No," "Not Applicable," or a response that did not answer the question. Some participants did not respond to the question. Responses were categorized according to the general meaning or indication of the response as represented in Table 11.

Table 11

Frequencies and Percentages of Assistant Principals' Perceptions of Research-Generated Knowledge

Response	*f*	%
Qualified Yes	196	52.82
Unqualified Yes	3	.81
No/Not Applicable	74	19.95
No Response/Unanswered	98	26.42
Total	371	100.00

Note. N = 371

"Qualified Yes" responses represented affirmative responses accompanied by a specific example or examples of research-generated knowledge the respondent found useful in their job as an assistant principal. These responses are illustrated in Table 12. An "Unqualified Yes" response represented an affirmative response absent of an example. The "No" or "Not Applicable" response represented that the respondent could not think of an example of useful research-generated knowledge. These responses did not contain any further elaboration. Finally, the "No Response" or "Unanswered" response represented an absent response or a response that did not answer the question and was, therefore, irrelevant and received no further analysis.

The open-ended nature of the second part of Research Question One gave the respondents an opportunity to elaborate and generated a variety of responses. Most of the "Qualified Yes" responses were classified according to their commonalities and provided

a collective view of the participants' perceptions about research-generated knowledge. The following four categories of research-generated knowledge emerged: (1) leadership; (2) data-informed decision-making; (3) student support; and (4) curriculum, instruction, and assessment. Some respondents provided multiple answers that were placed into more than one category. There were some "Qualified Yes" responses that did not fall into any of the four categories because they were limited to a type of source without any elaboration on specific content from the source. These responses were represented as "Non-specific."

According to Rosenthal and Rosnow (1991), descriptive research encourages the "careful mapping out of a situation or set of events in order to describe what is happening behaviorally" (p.10). In this research study, descriptive data were provoked, examined, and interpreted to better determine what factors impacted the assistant principals' responses to the research questions focused on the utility and quality of research-generated knowledge in their jobs as assistant principals. Table 12 provides the qualitative data obtained from responses to Research Question One.

Table 12

Frequencies and Percentages of Assistant Principals' Categorized Examples of Useful Research-Generated Knowledge

Category Response	*f*	%
Leadership	39	19.90
Data-informed decision-making	41	20.92
Student support	37	18.88
Curriculum, instruction, and assessment	74	37.76
Non-specific	22	11.22
Total	213	108.68

Note. $N = 196$. The total frequency exceeds 196 and the total percent exceeds 100% due to multiple responses from individual respondents.

To understand the emerging themes from the data, an explanation of how the qualitative data was categorized is necessary. The classification of the open-ended response from the first question (Can you think of an example of research-generated knowledge that you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge) used a mixed methods approach. The qualitative data were descriptive information from the participants that were documented through open-ended questions. The details provided in the responses to the open-ended question created a fuller picture of the study.

In order to determine the emerging themes, the researcher used an effective technique to summarize qualitative data based on practices outlined by the National Services Resources (Pratt, 2008). The technique involved the following: organization,

identification of response categories, classification of data, tabulation of classifications, and examination of how responses were determined. In the process of organizing and simplifying open-ended responses, the basic content analysis was used with key categories emerging. As with any data analysis technique, the purpose was to identify meaningful patterns in the data.

Research Question One's responses encompassed examples of research-generated knowledge that assistant principals found useful in some aspect of their jobs. The coding produced the following four categories for those "Qualified Yes" responses to the question:

1. Leadership
2. Data-informed decision-making
3. Student support
4. Curriculum, instruction, and assessment

Leadership included any response that referenced how to effectively manage or lead human, fiscal, and/or physical resources, as well as organizational structures such as schools within schools, school culture, and school climate; all of these influence the ability to positively impact the education of students.

Responses in this category included:

"The motivation theory has been a great help to me."

"Being a good communicator is one of the most important skills to have as an assistant principal."

"Psychology courses were very helpful. It is important to understand theory and thought that gives insight of how to deal with people."

"Leading with heart. How to build climate of school and relationships with teachers."

"Jim Collins – Good to Great"

"I enjoy learning about new leadership techniques on how to improve the school culture."

"Yes, several journals that I have read and implemented in my leadership style."

"I found research focusing on leadership very useful."

"Emotional intelligence capacity."

Data-informed decision-making encompassed answers that referenced professional learning communities (PLCs), data-driven decision-making, data, effective schools, accountability, collaboration, and/or continuous improvement. Responses in this category included:

"PLC – Professional Learning Communities help to close the achievement gap."

"Bill Daggett – Model schools…"

"I use research to look at public school data and what's good and what's working in 90% of schools."

"Most recently we did research using available data on all student failures. Then we overlaid data about attendance, discipline, etc."

"The review of behavioral data per teacher, grade, race, and gender have helped me to reevaluate staffing decisions, curriculum design, and campus policies."

"Knowledge that use of data broken down and analyzed will always lead to success for everyone."

"Our district has made a huge push to incorporate the PLC concept. DuFour's concept has had a huge impact on how we do things around here."

The *student support* category integrated any indication of direct relation to or impact on the student: parental involvement; student attendance; discipline management; mentoring; special populations and special programs; student retention; student demographics; student interventions; student engagement; and/or learning styles. Responses in this category included:

"Research that shows students need a one-on-one mentor."

"Research on retention – We created a transition class to avoid retaining students because retention can be debated as ineffective."

"We use a program that is research-based for teaching children behavior management and techniques. Research is important for current practice."

"I think that would be the involvement of parents. I try to spend a lot of time communicating to parents of at-risk students. This has helped with their discipline."

"Research on discipline management – share with administrative team and teachers."

"Tutorials. We found that tutorials were pulling students from classes that they needed so we developed an after school program with incentives for attendance."

"Inclusion philosophy – preparing to be an inclusive school next year."

Lastly, *curriculum, instruction, and assessment* alluded to any response that incorporated aspects of teaching and learning: brain research; effective teaching practices; critical thinking; best practices; balanced literacy; exact reference to curriculum, instruction and/or assessment; language acquisition; educational technology; bilingual education; and/or multiple intelligence theory. Responses in this category included:

"Brain research as to how students learn, how the brain connects with info. and how we should teach to increase the opportunity for students to learn and retain information."

"Cornell Notes and Thinking Maps. They give students visuals."

"Sheltered Instruction Observation Protocol (SIOP) has been extremely valuable in teaching teachers how to apply a framework to their teaching when trying to…"

"Marzano's high-yield meta-analysis study."

"Small group instruction. Our literacy classes are becoming more reader/writer workshop based."

"Research on the effect of critical thinking on student achievement."

"Lots of language acquisition information has been helpful to assist me in some of my responsibilities."

Twenty-two (11%) of the 196 respondents who elaborated did not provide specific content they found useful but alluded to various sources found useful such as:

"You must keep up with the current research. Many grants and programs are based on it. You need to keep current to have the edge."

"The middle school conference."

"I get email updates from ASCD and other professional organizations on a daily and weekly basis. I have found them to be very helpful."

"Use online periodicals from education weekly and peer reviewed articles."

"Educational journals are useful when I am interested in certain topics. The newspaper is a wonderful source for education policy."

Research Question Two

What sources of information do you find most useful when looking for professional ideas? On a scale from 1 to 10 (highest), how would you rate each of the following types of information sources for the technical knowledge they provide?

1. *Professional meetings of state or national education associations*
2. *Workshops*
3. *Professional journals concerned with education*
4. *Professional books concerned with education*
5. *Professional bulletins from regional or national information sources*
6. *Professional bulletins from district or state authorities*
7. *Newsletters from professional organizations*
8. *University or college courses that you attended for certification or an advanced degree*
9. *Internet*
10. *Other sources (please explain)*

Responses to options “a” through “i” resulted in quantitative data. The last item on the list of information sources provided an “Other sources (please explain)” option and resulted in qualitative data.

Table 13

Frequencies and Percentages of Assistant Principals' Ratings for Technical Knowledge Provided: Professional Meetings of State or National Education Associations

Response Rating	*f*	%
10	35	9.44
9	43	11.59
8	73	19.68
7	55	14.82
6	45	12.13
5	42	11.32
4	18	4.85
3	16	4.31
2	11	2.96
1	10	2.70
No response	23	6.20
Total	371	100.00

Note. $N = 371$

Nearly 94% of the assistant principals responded to this question. A total of 55.5% rated "professional meetings of state or national education associations" a 7 or higher for the technical knowledge they provided with nearly 20% of them rating the research an 8. Still, close to half of the respondents rated "professional meetings of state or national education associations" below a 7 for the technical knowledge they provided

them. Slightly more than 6% (6.2%) of the assistant principals did not rate this particular source of information.

Table 14

Frequencies and Percentages of Assistant Principals' Ratings for Technical Knowledge Provided: Workshops

Response Rating	*f*	%
10	46	12.40
9	60	16.17
8	75	20.22
7	48	12.94
6	40	10.78
5	41	11.05
4	14	3.77
3	9	2.43
2	10	2.70
1	3	0.80
No response	25	6.74
Total	371	100.00

Note. $N = 371$

Again, a strong majority (93.3%) of the assistant principals responded to this question. A higher percentage (61.7%) of the participants rated "workshops" a 7 or higher for the technical knowledge they provided with nearly 50 % of them rating the

research an 8 or higher. Only 30% of the respondents rated "workshops" below a 7 for the technical knowledge they provided them. And, 6.7% did not rate this particular source of information.

Table 15

Frequencies and Percentages of Assistant Principals' Ratings for Technical Knowledge Provided: Professional Journals Concerned With Education

Response Rating	*f*	%
10	39	10.51
9	54	14.56
8	58	15.63
7	61	16.44
6	41	11.05
5	40	10.78
4	22	5.93
3	19	5.12
2	9	2.43
1	4	1.18
No response	24	6.47
Total	371	100.00

Note. $N = 371$

Of the respondents, 93.5% rated this source of information. The percentage of the participants who rated "professional journals" a 7 or higher totaled 57.1% for the

technical knowledge they provided them. Slightly over 10% rated "professional journals" a 10 while approximately 15% of the respondents rated them a 9, 8, or 7. Approximately 36.5% of the respondents rated "professional journals" below a 7 for the technical knowledge they provided them. And, 6.5% did not choose to rate this particular source of information.

Table 16

Frequencies and Percentages of Assistant Principals' Ratings for Technical Knowledge Provided: Professional Books Concerned With Education

Response Rating	*f*	%
10	58	15.63
9	65	17.52
8	58	15.63
7	61	16.44
6	25	6.74
5	43	11.58
4	13	3.50
3	15	4.04
2	6	1.62
1	3	0.80
No response	24	6.50
Total	371	100.00

Note. $N = 371$

Again, of all of the respondents, 93.5% rated this source of information. The percentage of the participants who rated "professional books" a 7 or higher for the

technical knowledge they provided them totaled 65.3%. Over 33% rated "professional books" a 9 or a 10 while approximately 16 % of the respondents rated it a 7. Approximately 36.5% of the respondents rated "professional books" below a 7 for the technical knowledge they provided them. And, 6.5% did not rate this particular source of information.

Table 17

Frequencies and Percentages of Assistant Principals' Ratings for Technical Knowledge Provided: Professional Bulletins From Regional or National Information Sources

Response Rating	*f*	%
10	17	4.58
9	47	12.68
8	51	13.75
7	56	15.09
6	61	16.44
5	43	11.59
4	25	6.74
3	26	7.00
2	13	3.50
1	8	2.17
No response	24	6.46
Total	371	100.00

Note. $N = 371$

A total of 93.5% rated "professional bulletins from regional or national information sources" for the technical knowledge they provided them. The percentage of

the participants who rated “professional bulletins from regional or national information sources” a 7 or higher for the technical knowledge they provided them totaled 46.1% with only 4.6% rating it a 10. More than half rated it below a 7, and 6.5% of the respondents did not rate this source.

Table 18

Frequencies and Percentages of Assistant Principals’ Ratings for Technical Knowledge Provided: Professional Bulletins From District or State Authorities

Response Rating	*f*	%
10	15	4.04
9	50	13.48
8	56	15.09
7	55	14.82
6	57	15.36
5	47	12.67
4	25	6.74
3	20	5.39
2	11	2.96
1	8	2.16
No response	27	7.28
Total	371	100.00

Note. $N = 371$

A total of 92.7% respondents rated “professional bulletins from district or state authorities” for the technical knowledge they provided them. The percentage of the

participants who rated “professional bulletins from district or state authorities” a 7 or higher for the technical knowledge was 47.4% with only 4% rating it a 10. Similar to how participants rated the “professional bulletins from regional or national information sources,” 53.6% of the respondents rated professional bulletins from district or state authorities below a 7. And, 7.3% of the respondents did not rate this source.

Table 19

Frequencies and Percentages of Assistant Principals’ Ratings for Technical Knowledge Provided: Newsletters From Professional Organizations

Response Rating	*f*	%
10	16	4.31
9	37	9.95
8	65	17.52
7	52	14.02
6	65	17.52
5	44	11.85
4	23	6.20
3	23	6.20
2	10	2.70
1	12	3.23
No response	24	6.50
Total	371	100.00

Note. $N = 371$

A total of 93.5% of the respondents rated “newsletters from professional organizations” for the technical knowledge they provided them. The percentage of the

participants who rated “newsletters from professional organizations” a 7 or higher for the technical knowledge was 45.8% with only 4.3% rating it a 10. Slightly over 40% of the participants rated the “newsletters from professional organizations” a 7, 8 or 9. Nearly 55% of respondents rated “newsletters from professional organizations” below a 7. And, 6.5% of the respondents did not rate this source.

Table 20

Frequencies and Percentages of Assistant Principals’ Ratings for Technical Knowledge Provided: University or College Courses Attended for Certification or Advanced Degree

Response Rating	*f*	%
10	44	11.86
9	56	15.09
8	67	18.06
7	48	12.94
6	35	9.43
5	48	12.94
4	19	5.12
3	14	3.77
2	7	1.89
1	8	2.16
No response	25	6.74
Total	371	100.00

Note. $N = 371$

A total of 93.3% of the respondents rated “university or college courses attended for certification or advanced degree” for the technical knowledge they provided them.

The percentage of the participants who rated “university or college courses attended for certification or advanced degree” a 7 or higher for the technical knowledge they provided them was 58% with 12% rating it a 10. Slightly over 46% of the participants rated “university or college courses attended for certification or advanced degree” a 7, 8 or 9. Approximately 42% of respondents rated it below a 7. And, 6.7% of the respondents did not rate this source.

Table 21

Frequencies and Percentages of Assistant Principals’ Ratings for Technical Knowledge Provided: Internet

Response Rating	*f*	%
10	59	15.90
9	57	15.36
8	61	16.44
7	44	11.86
6	41	11.05
5	40	10.78
4	18	4.85
3	9	2.43
2	5	1.35
1	6	1.62
No Response	31	8.36
Total	371	100.00

Note. $N = 371$

A total of 91.6% of the respondents rated the “Internet” for the technical knowledge it provided them. The percentage of the participants who rated the “Internet” a 7 or higher for the technical knowledge it provided them was 59.6% with nearly 16% rating the “Internet” a 10. Approximately half of the participants rated the “Internet” a 7, 8, or 9. A total of 33% of respondents rated it below a 7. And, 8.4% of the respondents did not rate this source.

Table 22

Frequencies and Percentages of Assistant Principals’ Ratings for Technical Knowledge Provided: Other Sources

Response Rating	*f*	%
10	43	11.58
9	27	7.28
8	27	7.28
7	5	1.35
6	8	2.16
5	8	2.16
4	1	0.27
3	3	0.80
2	1	0.27
1	9	2.43
No response	239	64.42
Total	371	100.00

Note. $N = 371$

A menial total of 36.6% of the respondents rated the “other sources” option for the technical knowledge it provided them. The percentage of the participants who rated “other sources” a 7 or higher for the technical knowledge it provided them was 27.5%. However, nearly 12% rated the “other sources” a 10. Approximately 16% of the participants rated the “other sources” a 7, 8 or 9. Less than 10% of respondents rated it below a 7, but this was attributed to the fact that 64.4% did not rate the “other sources” option.

Comparatively, assistant principals preferred “professional books,” followed by “workshops,” then the “Internet” as the top three sources for the technical knowledge and usefulness provided in some aspect of their jobs. Ranking fourth, fifth, and sixth were “university or college courses,” “professional journals,” and “professional meetings of education associations” respectively. At the bottom of the list were “state and district authority generated professional bulletins” (seventh), “regional or national professional bulletins” (eighth), and “newsletters from professional organizations” (ninth). Last on the list was “other sources,” ranking 10th out of the 10 information sources that were presented for rating in the survey. Table 23 illustrates assistant principals’ rankings of each information source for the technical knowledge provided. Each ranking is paired with the cumulative percentage of response ratings of 7 or higher for each technical knowledge source.

Table 23

Summary of Response Rating Rankings for Technical Knowledge Sources

Technical Knowledge Source	Response Rating Ranking (cumulative % ≥ 7 rating)
Professional books	1 (65.22%)
Workshops	2 (61.73%)
Internet	3 (59.56%)
University courses	4 (57.95%)
Professional journals	5 (57.14%)
Professional meetings of education associations	6 (55.53%)
State/district professional bulletins	7 (47.43%)
Regional/national professional bulletins	8 (46.10%)
Newsletters	9 (45.80%)
Other sources	10 (27.49%)

Note. % of technical knowledge sources that were ranked 7 or higher by the assistant principals.

The "other sources" option in Research Question Two asked the respondent to "please explain." Consequently, participants provided a variety of other sources as useful information sources for the technical knowledge they provided to them in their jobs as assistant principals. Table 24 illustrates other sources identified as valued for the technical knowledge they provided.

Table 24

Other Sources Qualified

Category Response	*f*	%
Other professionals in the field	64	80.00
Professional conferences/development (e.g., local, regional, outside consultants)	9	11.25
Field experience	3	3.75
Other local and national sources (e.g., non-profit agencies, public law, national news)	3	3.75
Higher education coursework	1	1.25
Total	80	100.00

Note. $n = 80$

Other Sources. Most of the respondents believed people or individuals were other sources of technical knowledge. Specifically, participants described "other professionals in the field of education" as another source of technical knowledge. These identified professionals in the field included but were not limited to: other successful (practicing or retired) assistant principals and principals; teachers; school improvement specialists; human resource professionals; social workers; the Board of Trustees; and the superintendent. In addition, learning acquired through professional conferences or other local or regional development opportunities provided by regional educational service centers, leadership academies, internal professional learning communities, and external educational consultants were offered as valuable sources of technical knowledge. A few

respondents conveyed field experience to be their best "teacher." Participants also identified the entity of public law as well as reports of current events in schools and around the nation as sources useful to them in their jobs as campus administrators. Based on observations of teachers implementing instructional strategies learned from college courses, one respondent shared that this type of learning source would also be useful to him as an assistant principal.

Research Question Three

How do assistant principals rate the quality of educational research read over a one-year period?

Responses to Research Question Three resulted in purely quantitative data. However, these results were expanded upon and were further explored through the responses to Research Question Four. Table 25 illustrates how assistant principals rated research read over a one-year period above average.

Table 25

Assistant Principals' Response Ratings on the Quality of Educational Research

Response Rating	*f*	%
10 (highest)	55	14.82
9	39	10.51
8	106	28.57
7	62	16.71
6	35	9.43
5	23	6.20
4	11	2.97
3	6	1.62
2	3	0.81
1 (lowest)	1	0.27
No response	30	8.09
Total	371	100.00

Note. $N = 371$

A total of 91.9% of the participants responded to Research Question Three. The percentage of the participants who rated the quality of educational research over a one-year period a 7 or higher was 70.6% with nearly 15% rating it a 10. Slightly fewer than 55% of the participants rated the quality of educational research over a one-year period a 7, 8, or 9. Just fewer than 30% of respondents rated it below a 7.

Research Question Four

What would it take to rate it a 10?

Due to the open-ended nature of Research Question Four, participants offered a variety of responses. These responses allowed for a qualitative analysis. The majority of the participants did not respond to this question while those who did respond sometimes offered responses that fell into multiple categories. Responses were categorized according to the general meaning or indication of the response as represented in Table 26.

Table 26

Assistant Principals' Responses: What it Would Take to Rate Research a 10

Category Response	*f*	%
More practical/applicable	78	39.00
More useful/relevant	41	20.50
More on implementation	22	11.00
More on proven results	15	7.50
More on leadership/teacher quality	5	2.50
More action research	5	2.50
Improve accessibility	28	14.00
Improve readability	9	4.50
Other	21	10.50
Total	224	112.00

Note. $N = 200$. Total frequency is more than 200 and the total percentage is more than 100% due to multiple responses from individual participants.

Of the 371 participants, 200 responded to the final research question. Many of the 200 respondents provided multiple attributes necessary for them to rate research they recently read at a 10 (highest); hence the total percentage exceeded 100%. The open-ended nature of this research question called for categorization of responses. Most responses fell into a discrete category. Initially, there were 20 categories. The researcher eliminated categories that had less than five responses. Those responses were dissolved into the "Other category." All categories with five or more responses remained discrete categories as illustrated in Table 26.

The majority (78 out of 200) of the responses fell into the "more practical/applicable" category. Responses in this category included:

"Practicability of the research and how it applies to all groups."

"Real-world applications."

"It would have to be more practical and applicable to inner city schools."

"More practical ways to use it with teachers, ways to follow-up. Some is a little too technical."

"Research articles need to be real practical issues you can take and implement immediately at your school."

"Seek to make it applicable from a practitioner's perspective."

"More down to Earth. Practical and it should adhere to what is happening now. What's happened in the past, you can't fix it. It should have a practical purpose."

"I do not agree with some of the literature because its not realistic, and it does not apply to my work environment."

"Current and applicable to a wide system of community of students."

Another 41 (21%) responded that they wanted the research to be "more useful/relevant." Responses in this category included:

"Not fluff – of real value."

"Make it more relevant to the situations that I encounter in a real school."

"So much of what we get is general. The stuff that helps me in educational research deals with students/schools that look like mine."

"More relevance to my district."

"More pertinent to the types of children we have at our school."

"More relevance to classroom practice."

"It needs to be connected to the school."

"More relevance to my type of school and school setting."

"The school population in the study should mirror the different schools in real life."

"It would have to be more representative of the populations we teach."

Eleven percent of the respondents expressed that they wanted the research to focus more on implementation of best practices. Responses in this category included:

"Finding a way to implement things without making it an added burden."

"Implementation ideas rather than just information."

"More examples of how to implement in different ways."

"What would help the most is more information dealing with implementation."

"More information on how to do things they propose."

Subsequently, 8% further challenged researchers to increase the focus on proven results of research. Responses in this category included:

"Something proven to work worldwide consistently, over time."

"Need to see it to believe it works. Would want to go to a school that has already implemented it to talk to someone about its success…"

"Credible, makes sense, students in mind, teacher friendly, proven results, valuable for a lifetime, not just for a moment."

"More depth about case studies and how schools really performed or integrated a concept or idea."

Five respondents declared they wanted more research on leadership or teacher quality. Responses in this category included:

"More research on leadership and teacher quality."

"I would like to see more research done on effective teaching and teacher evaluation."

Five other participants identified action research in short supply in the research field. Responses in this category included:

"See it in action, lots of theory but it is not always founded on experience."

"Larger participating groups. Possibly multiple schools involved in the research. Side-by-side comparisons of the control groups vs. the participants."

Twenty-eight assistant principals described limited accessibility as an issue in need of improvement with specific reference to limited time as well as limited access. Responses in the category included:

"More time to evaluate all the types of research. With the multitude of responsibilities, it creates a problem at times."

"More time to read the information in bulletins and journals."

"More time to digest the material."

"Help to locate specific research."

"Make more available for APs."

"A more centralized place. With so little time, searching for the different types of research is sometimes difficult or impossible."

"More frequent exposure to the research and time to digest all the information."

"More accessible."

And, nine campus administrators expressed concern about the readability of the available research. Responses in this category included:

"Shorter."

"Crib notes, shorter articles."

"Make it more concise, reader-friendly…"

"Easier to read."

"Less technical terms."

Several responses did not fit within the discrete categories listed above and would have produced multiple categories with one to four responses. The researcher grouped all minimal response categories into the "other" category. Responses in the "other" category include criticism that research focused too much or too little on testing, did not adequately represent the diversity of special student populations, provided an inadequate amount of research on secondary level data, and needed more research on the achievement gap, technology, parent involvement, and other school structures (e.g., private school). Responses in the category included:

"It would have to focus less on high stakes testing."

"I am currently researching various programs available for bilingual students. There has not been a lot of research conducted in this area."

"More research using secondary data. Most research is based on elementary school data."

"Cover more detailed information and not biased."

"We need more opportunities and hands-on experiences to learn about technology."

"More specific research towards a true understanding of education and the urban student."

"If they did a study on where parents provide input on what they value from the instructors."

"Private school focus."

CHAPTER FIVE

DISCUSSION

The final chapter of this study is organized to summarize the research, share its findings, recognize limitations of the study, offer implications of the study, and present conclusions, including recommendations for further research. Thus, this final chapter contains the following subsections: (1) summary; (2) findings and discussions; (3) limitations; (4) implications; and (5) conclusions.

Summary

The purpose of this study was to gain a better understanding of the perceptions of assistant principals with regards to research-generated knowledge and the manner in which assistant principals view the utility and quality of information sources to which they have access. Subsequently, the study revealed whether assistant principals were able to identify specific examples of research-generated knowledge they found useful in some aspect of their jobs as assistant principals. In addition, this study disclosed what information sources assistant principals found most valuable in their jobs as assistant prinicpals for the technical knowledge they provided. Finally, this study divulged how assistant principals rated the overall quality of research they read over a one-year period and what it would take for them to assign the highest rating of a 10 to the research.

Archived data, which was collected through face-to-face interviews, was accessed and utilized in this research study. Students working on their Masters of Education degrees who were enrolled in the College of Education's Educational Leadership Department conducted the interviews. The large research university is located in the Gulf Coast region of Southeast Texas. The participants of this study were 371 assistant

principals. The population of assistant principals consisted of 261 females and 110 males. The ethnic breakdown of this group to the nearest whole number percentage was: 51% White, 25% African American, 19% Hispanic, 3% Asian, and 2% Other. Participants' average years spent in education was 16, and their average tenure as assistant principal was five years.

The survey instrument, which was developed by a professor with a group of principals and Masters of Education program students in the Educational Leadership Department at the College of Education within a large research university, included two main sections. Section one included 22 items for administrators to divulge their demographic background information and their respective school demographics. Section two included a combination of 62 Likert-scale items and 31 open-ended questions. The cognitive interview method was used for the open-ended questions. This study focused on two Likert-scale items and two open-ended questions. The duration of the data collection process consisted of approximately one and one-half years.

This particular study was conducted using a mixed methods approach to (a) analyze the perceptions of assistant principals' regarding research-generated knowledge and to (b) analyze the manner in which assistant principals viewed the utility and quality of accessible information sources for the technical knowledge they provided. The first step was to conduct a quantitative analysis of the data using descriptive statistics. The second step required in the examination of the qualitative data was to extract the naturally occurring, research-based themes from the responses and then categorize (or code) the responses. In order to accomplish this goal, the researcher reviewed each response individually and identified the main theme(s) of the response. Once a list of themes was

created, the themes were examined for commonalities which allowed the researcher to combine several of the original categories to further condense the number of themes. After the naturally occurring themes were determined, they were further examined for a basis in the existing literature. The diction of the themes is based in the literature. This process resulted in varied, open-ended responses from the assistant principals being categorized in generalized themes for further examination.

Findings and Discussions

Findings and discussions of the study will be presented in four different sections: (1) Research Question One, (2) Research Question Two, (3) Research Question Three, and (4) Research Question Four.

Research question one. *Can you think of an example of research-generated knowledge which you found useful in some aspect of your job as assistant principal? If so, please tell me about that knowledge.*

This question sought to garner practicing assistant prinicpals' perceptions regarding the value of research-generated knowledge in their jobs as assistant principals. It also extracted specific knowledge that assistant principals found useful in their roles. Analysis of responses showed that not all assistant principals could automatically think of examples of research-generated knowledge useful to them in their jobs as assistant principals. Of the 371 assistant principals that responded to this survey, 74 (nearly 20%) of them could not identify examples of research-generated knowledge they found useful to them in their jobs as assistant principals – their responses were "No" or "Not Applicable." Furthermore, 98 (nearly 26%) of the 371 participants did not respond to this particular question at all or did not answer the question asked. Consequently, over 46%

of the participants did not offer confirmation that they could identify any concrete examples of research-generated knowledge they found to be useful in their jobs as assistant principals.

Based on the data, it appears that some of the assistant principals surveyed may have struggled with achieving an expanded epistemic frame. Ziegenfuss (2010) challenged assistant principals to extend their knowledge in order to set the stage for influencing both internal and external stakeholders during these constant times of change for educational organizations. Further, Ziegenfuss (2010) charged assistant principals with this imperative responsibility to develop an expanded epistemic frame if they (assistant principals) wish to bridge the gap between research and educational practice for the benefit of teaching and learning. According to this survey's results, there does not appear to be strong evidence that most assistant principals who participated in this survey are expanding their epistemic frames through research-generated knowledge.

Slightly over half, 54%, of the assistant principals surveyed did confirm that research-generated knowledge was useful in some aspect of their jobs as assistant principals. Of the 199 respondents who affirmed the utility of research-generated knowledge, 196 of them elaborated on what research they found useful. Of the 196 respondents who offered elaboration, 174 provided examples that were content specific. These responses were categorized into four themes: (1) leadership; (2) data-informed decision-making; (3) student support; and (4) curriculum, instruction, and assessment. The remaining 22 elaborations were not content specific.

Nearly 40% of the content specific responses were related to curriculum, instruction, and assessment. This confirms the current trend in the instructional

leadership component of the assistant principal's job. According to Sun (2011), assistant principals have a significant supervisory role when it comes to instructional leadership tasks such as teacher evaluation, instructional leadership, and curriculum development. As the principal and assistant principal positions have evolved and the need for distributed leadership (Muijs & Harris, 2003) has become apparent, it is imperative that assistant principals view themselves as instructional leaders. The results of this study reinforce the realization that assistant principals have moved from merely logistics managers to leaders of teaching and learning.

Next in frequency of response were examples of responses related to data-informed decision-making. Approximately 21% of the respondents referenced research on professional learning communities and the use of data as useful in their jobs as assistant principals. According to Earl and Katz (2006), the NCLB Act maintains the lofty expectation that educational leaders will analyze, interpret, and use data to determine plans of action throughout all areas of education, ranging from professional development to student achievement. NCLB exists on the assumption that the use of data nourishes continuous improvement efforts by establishing the framework to assess existing capacities, monitor growth, and update development plans (Earl & Katz, 2006). The results of this study confirmed the significance data have on assistant principals as they make critical decisions on a daily basis.

Not far behind in terms of frequency, at just under 20%, were responses related to leadership in general with specific reference to motivation theory, emotional intelligence capacity, and school climate and culture. Murphy et al. (2006) conveyed that the school leader affects student achievement in many ways, including playing a critical role in

creating a school culture focused on learning and high expectations. These surveyed assistant principals appeared to comprehend the need for campus leaders, both the principal and assistant principal, to communicate with all stakeholders in the educational organization and to establish a culture and climate conducive to student success.

Similarly, very close in terms of popularity in responses, is the theme of student support. Approximately 19% of the participants reported that research on various supports for the students such as parent involvement, discipline management, mentoring, special populations and special programs, and student demographics served as valuable research-generated knowledge in their jobs as assistant principals. Confirming the importance of the various supports necessary for assistant principals to provide, Hartzell et al. (1995) and Wildman (1996) asserted that assistant principals must have the ability to oversee multiple student support services as they are called upon to address student-related problems/decisions 45% of the time, and they are called upon to handle parent-related problems/decisions 10% of the time. Hence, over half of their time as assistant principals is spent working directly with students or their parents.

Research question two. *All educators need access to new expert knowledge. What sources of information do you find most useful when looking for new professional ideas? On a scale of 1 to 10 (highest), how would you rate each of these types of information sources for the technical knowledge they provide:*

1. *Professional meetings of state or national education associations*
2. *Workshops*
3. *Professional journals concerned with education*
4. *Professional books concerned with education*

5. *Professional bulletins from regional or national information sources*
6. *Professional bulletins from district or state authorities*
7. *Newsletters from professional organizations*
8. *University or college courses that you attended for certification or an advanced degree*
9. *Internet*
10. *Other sources (please explain)*

This question uncovered what sources of information assistant principals found most useful when looking for professional ideas and how assistant principals rated these particular sources for the technical knowledge they provided. Overall, participants rated professional books, workshops, and the Internet the highest for the technical knowledge they provided. University courses and professional journals were right behind, ranked fourth and fifth, respectively. It appears that assistant principals rated sources that allowed individual choice the highest. This speaks to the influence an individual's belief systems have on their professional knowledge-base. Hassinger as cited by Dixon (2008) conveys that a leader's buy-in to the need for a new idea is consistent with that leader's attitudes and beliefs. It is evident in the ranking results that assistant principals seek out knowledge that they, as individuals, connect to based on their belief systems as the sources they rank highly are sources driven by choice and local connection and not determined by state or national authorities far removed from their direct experiences.

It is also important to note that the list of information sources appeared to be viewed by the participants as a rather comprehensive list since the "other sources" option was the least valued information source of the 10 available options. Only 80 (~22%) of

the 371 participants opted to offer other sources to be considered as useful when looking for professional ideas. Hence, nearly 80% of the participants found the list of nine specific information sources to be comprehensive. Moreover, the "other sources" that were revealed showed an overwhelming majority of respondents recognizing other professionals in the field as their most valuable resource. This confirms the assertion by Barth (1984), who shared that when asked how they (principals) found professional renewal, they often turned to their colleagues. As Matthews and Crow (2003) informed, most assistant principals are likely to move into principal positions; therefore, it is not surprising that they think like prinicpals and also view their fellow school administrators as the most underrated source of technical knowledge.

Research question three. *On a scale of 1 to 10 (highest), how would you rate the quality of the educational research that you've read over the last year?*

This question aimed to get an overall picture of how assistant principals rated the educational research they read over a one-year period. Purely quantitative, the results of the responses revealed that the majority of assistant principals surveyed viewed the quality of educational research as above average. On the given Likert scale of 1-10, 1 being the lowest and 10 being the highest, average would be 5.5. Therefore, any ratings of 6 or higher would be considered above average. A total of 80% of respondents rated the quality of research they read over a one-year period a 6 or higher. This appears to be high in comparison to the results of the responses for Research Question One where 46% of the participants did not confirm their use of any examples of research-generated knowledge in their jobs as assistant principals.

Subsequently, it conveys the possibility that research-generated knowledge is

indeed valued, although it is not accessed by assistant principals. Based on the quantitative data associated with Research Question Three, respondents appeared to believe in what Honig and Coburn (as cited in Arjomand, 2010) professed—the notion that research-generated knowledge can positively impact student achievement and decrease other influences that take the focus away from improving teaching and learning. Perhaps, it is the social context and routines of the assistant principals as stated in the work of Levin et al. (2009) that interferes with assistant principals accessing research-generated knowledge.

Research question four. *What would it take for you to rate it a 10?*

This question unveiled the reasons why assistant principals may not value research-generated knowledge. When asking assistant principals what should be "right" with research, respondents tended to offer what was "wrong" with research. The qualified responses were consistent with what organizational knowledge mobilization and belief systems literature present as barriers and nuances often encountered in the discussion of the value, the use, and the transfer of research-generated knowledge. Respondents claimed that research was *not* practical, applicable, useful, relevant, accessible, nor readable. Moreover, the assistant principals surveyed further questioned the lack of implementation information, lack of proven results via case studies, and lack of action research. Resounding is the message that there are too many barriers for assistant principals to view research-generated knowledge as useful to them as practitioners.

Barriers identified by Levin (2008) such as the new knowledge does not fit with prior knowledge and belief; the new knowledge or practice does not fit with self-interest;

and proposed change implied from the new knowledge does not seem feasible paralleled participants' responses: not practical; not relevant; and not applicable. Brown (as cited in Hargreaves, 1999) charged that research must change educators' understandings and that ideas have to enter the "common-sense discourse of communities" of practitioners and policy makers. Clearly, according to the assistant principals surveyed, the connection between the theorist and practitioner has not been achieved.

Limitations

The selection process of the interviewees may cause concern about the representation of the group. The interviewers were free to choose the assistant principals they interviewed. Interviewers may have chosen administrators they knew or those they had easy access to out of convenience; this may appear to present limitations. The interviewers represented multiple school districts in the Gulf Coast region; thus, they provided a representative sample. As a result, the expanded geographic area of the study decreased potential risk of bias.

The number of participants in the distinct categories may limit the generalizability of the results to all geographic areas. For example, there were a low number of assistant principals from rural schools represented when compared to the number of assistant principals from urban and suburban schools. Only 3.6% of the assistant principals were from rural school districts compared to 43.9% of the assistant principals from suburban school districts and 52.5% of the assistant principals representing urban school districts.

Finally, it appears as though there may be some inconsistency with how respondents answered Research Question One and Research Question Four. It may have

served the participants better if the interviewer had provided increased “think time” and specific additional prompting for Research Question One.

Implications

As stated at the beginning of this study, this research contributes to the field of research on the assistant principal. Muijs and Harris (2003) proposed that the role of the assistant principal has evolved due to the need to distribute leadership more widely and keep up with times of constant change. Results from Research Question One of this study confirm that distributed leadership is a reality in educational organizations. Furthermore, upon examination of the examples of research-generated knowledge the respondents provided, it is apparent that assistant principals view themselves as instructional leaders. Participants’ responses also indicate that they view themselves as instrumental in creating organizational culture and climate and having a breadth of knowledge related to student support systems. In essence, assistant principals view themselves as assimilating to the role of the principal in many regards.

In addition, qualified responses to Research Question Four provide a detailed look at current perceptions of assistant principals specific to the barriers that are keeping them (assistant principals) from accessing and utilizing research as practitioners. Specific feedback from practicing assistant principals divulges the reasons why they (assistant principals) would not rate research they read over a one-year period a 10. Assistant principals who participated in this survey concur that research is *not*: practical, applicable, useful, relevant, feasible to implement, credible, accessible, *nor* readable. Cordingley (2008) offered specific suggestions for increasing the usability of academic writing: the research should be clear, simple, short, and jargon-free; interventions and

knowledge in action should be described in detail, with focus on both action and evidence; and evidence should be presented in the context of how it was used by practitioners in the related study and how it resulted in school improvement. Furthermore, Cordingley (2008) asserted that the research methods should be summarized and suggestions for finding out more about the research should be offered to the reader. These data shed light on the manner in which research-generated knowledge is viewed by assistant principals and presents support for the literature and a challenge to researchers, policy makers, administrators, and developers of administrator preparation programs seeking to make research more practical, applicable, useful, relevant, feasible to implement, credible, accessible, and readable if they wish to increase the use of research by practitioners, specifically assistant principals, in the field of education.

Another contribution of this study was realized through the data on what roles assistant principals envision themselves undertaking concerning research-generated knowledge and its influence on campus leadership. Sun (2011) reported that assistant principals interviewed about their roles and responsibilities responded that they had increased involvement with instructionally focused tasks. In alignment, the data from this study uncover what assistant principals say they experience as they gain information and strive to keep current on various matters. Topics that respondents disclosed as relevant to their roles as assistant principals in addition to the general managerial responsibilities included: school leadership in general; data-informed decision-making; instructional leadership (curriculum, instruction, and assessment); and topics related to directly supporting students.

This research identified what research-generated knowledge and information sources assistant principals feel they need to possess in order to be effective educational leaders. The findings of this study provide implications for improving assistant principals' access to appropriate and useful research-generated knowledge and information sources. Moreover, senior leaders can use this data to make informed decisions regarding the use of funds in expanding the knowledge base of practicing assistant principals in their districts based on what assistant principals have communicated as relevant and worthwhile subject matter in their responses. Examples, as revealed throughout the study, would emphasize training on how to motivate employees, communicate with multiple stakeholders, create an organizational culture and climate conducive to success, implement data-informed decision-making, master instructional leadership, and extend the knowledge base about student support systems.

Finally, the feedback from the assistant principals in this study establishes the need for increased exposure to relevant research-generated knowledge as well as more intensive guidance as to how to access, read, interpret, and utilize research-generated knowledge during administrator preparation programs. Leaders in higher education must take note of the style of research that is most practical and applicable for practitioners and allow that to be the focus for research-oriented coursework required of aspiring school leaders. For example, administrator preparation program developers should highlight different types of information sources and their respective relevance so aspiring assistant principals understand how to integrate research into the essential functions of the assitant principal. This effort would likely increase the comfort level with which assistant

principals approach research-generated knowledge and increase the likelihood of immediate application and implementation when they become assistant principals.

Conclusions

Wildman (1996) constructed a case for why assistant principals must use research-generated knowledge. He stated that research-generated knowledge will help school leaders adequately address problems that arise and it will help determine what is needed from school administrator preparation programs. Clearly, a large number of the assistant principals surveyed were not consciously benefitting from research-generated knowledge at the time this survey was conducted. However, according to the qualified responses to Research Question One, it is clear that assistant principals are keenly aware of their current roles. It is encouraging that the research-generated knowledge that 54% of the respondents did find valuable directly related to what the literature revealed are the new responsibilities of the assistant principal:

1. instructional leadership via knowledge of curriculum, instruction, and assessment;
2. data-informed decision-making to ensure student academic success;
3. general leadership attributes involving effective communication, understanding organizational culture and climate, and the ability to serve multiple stakeholders; and
4. student support systems (e.g., parent involvement, discipline management, and an awareness of special populations and programs).

However, it is important to point out that as assistant principals advance to principal positions, their epistemic frame must expand in the area of visionary leadership, making that the number one focus.

Evident in the qualified responses to Research Question Four is the notion that assistant principals responding to this survey overwhelmingly viewed research as an obstacle course—an obstacle course for which they lack the time and energy to conquer. As Dagenais et al. (2008) stated and as results of this study corroborate, education practitioners desire characteristics such as relevance, accessibility, usability, readability, and applicability. Responses from assistant principals in this study also agreed with Cordingley (2008) who pointed out that practitioners find it necessary to "connect intellectually, practically, and emotionally with research knowledge and be able to see how they can apply this knowledge to their specific contexts" (p. 38). Brownlee's research into the influence of an individual's belief systems are also linked to comprehension, meta-comprehension and meta-cognitive capacity, interpretation, and persistence (Brownlee, 2000). Hence, it would behoove researchers to accommodate the practitioner's preferences and interests if they want their research to be read, interpreted as useful and implemented into the practices of the assistant principal.

In conclusion, the assistant principals surveyed supported the perception that research-generated knowledge is important for school leaders, in particular, assistant principals. The participants confirmed that there are examples of useful research-generated knowledge available. However, the respondents conveyed that the accessibility and readability of the research is not adequate and that there are multiple

barriers to overcome, as well as a shortage of certain crucial information that should be pursued.

In addition, participants in this survey offered responses that can provide administrator preparation programs some insight. Charging that principal preparation programs must be designed based on the understanding that the responsibilities of the building administrator have and will continue to change in conjunction with the various levels of educational demands and accountability from an array of origins, Riker (2007) concluded that these preparation programs must prepare practitioners to engage in research. In order to rouse authentic engagement from assistant principals, creators and facilitators of school administrator preparation programs must establish an effective framework for approaching research during the early stages of professional training. The results of this survey provide details of what assistant principals find useful, valuable, and necessary to convince them to access and implement research-generated knowledge. Developers of administrator preparation programs should take note.

Finally, as Arjomand (2010) suggested, if the ultimate goal is to increase both organizational and individual capacity for research use, the triangle of researchers, administrators, and educators must cooperate and collaborate. Hence, it is the imperative responsibility of researchers to respond to the data in this study and begin to approach research for practitioners in a different, more practitioner-friendly way. Then, it is the responsibility of aspiring assistant principals who will greatly impact student achievement, to recognize the need to commit to accessing, reading, internalizing and transferring research-generated knowledge for the benefit of educators and students.

Recommendations for Future Research

Based on the results of this study, the following are recommendations for continued research in the area of the assistant principal and research-generated knowledge:

1. The findings of this study are limited by sample. To gather a comprehensive view of assistant principals and research-generated knowledge, practicing assistant principals beyond the greater Gulf Coast region should also be interviewed.
2. A comparative analysis of the differences among the groups within the sample (gender, ethnicity, years as an assistant principal, school districts, etc.) would allow further exploration of the data to see if any significant correlations emerge.
3. A comparative study of principals, assistant principals, and teachers' perceptions of research-generated knowledge and the quality of information sources should be conducted. Additional investigation across these three positions would help shed light on how differently (or similarly) these three groups view research-generated knowledge and the quality of information sources to which they have access.
4. A qualitative study further examining assistant principals' ideas of useful and high quality research-generated knowledge would provide rich data on what research-generated knowledge and information sources assistant principals feel are practical, applicable, useful, relevant, and feasible to implement to obtain positive results for student success.

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APPENDIX A

SURVEY INSTRUMENT

APPENDIX A

SURVEY INSTRUMENT

Graduate Student's Name

Section A:

Demographic Information

The Principal's name

Age in Years: ☐ 30 and Under ☐ 31-37 ☐ 38-45 ☐ 46-55 ☐ 56-62 ☐ Over 63

Sex: ☐ Male ☐ Female Years as a Principal Years in Education

Degrees Held: ☐ Bachelors ☐ Masters ☐ Doctorate

Management Certification Year

Institution

Ethnicity: ☐ White/Non-Hispanic ☐ Black/Non-Hispanic ☐ Hispanic ☐ Asian/Pacific Islander

☐ American Indian/Alaskan Native ☐ Non-Resident/International

Major teaching field

Extra-curricular activities directed while a teacher

The School's name

Location: ☐ Rural ☐ Suburban ☐ Urban [ ] The Grades in the school

Number of: Teachers [ ] Students [ ]

Percentage of students: [ ] White/Non-Hispanic [ ] Black/Non-Hispanic [ ] Hispanic
[ ] Asian/Pacific Islander [ ] American Indian/Alaskan Native
[ ] Non-Resident/International

Other certificated personnel [ ] Non-certificated personnel [ ]

TAKS Rating: ☐ Exemplary ☐ Recognized ☐ Acceptable ☐ Low performing

Percentage of students receiving free and reduced Lunch [ ]

Name of School District [ ]

Section B:

In this section we are trying to establish how principals conceptualize their notions of what makes a school a "good" school as opposed to a "fair or poor" school.

Much of the current educational leadership literature focuses on effective schools and more currently how we develop our schools as community. The new nomenclature currently used is "good school." How would you describe a good school?

For our purposes school culture is described as "What the school values." How would you describe the culture of a good school?

Section C

We are trying to understand the importance of the relationship between the principal and the teachers.

Explain how the relationship between the principal and the teacher important for the school.

Describe what you think are the most critical feature for a successful working relationship between teacher and principal.

What do you do to create good relations with your teachers?

Do you look out for the personal welfare of your teachers? If so, how do you do it?

Section D

In this section we are trying to establish the attitudes beliefs and values that principals have with regard to teacher supervision.

What is the purpose of teacher supervision?

Do our assessment practices (TTAS, PDAS) really work? Do you believe that the process achieves the intended outcome? What do you believe are the outcomes?

Do you think that the principal is the best person in the school to do supervision? For example is there any value for a principal with no education or experience supervising a French language class.

When supervising teachers do you report on what you observe or do you consider other factors when writing your reports? Explain

Section E

We are trying to establish the understandings that principals have about leadership

Describe he difference between a "linear" leader contrasted to a critical thinker and systematic problem solver?

What do you believe are the most important characteristics of a good leader?

How would you describe yourself as a leader?

To what extent do you allow teachers to take risks to make the school better?

To what extent do you believe that teachers should be involved in leadership roles in your school?

Section F

We are trying to establish the understanding and value principals attach to the role of parental involvement in their student's education.

What do you believe is an appropriate and necessary level of parental involvement in the student's education? Explain.

What do you do to encourage and support parental involvement in their student's education?

When a parent asks you to change their student's teacher how do you react? Check one category below

☐	I do so willingly
☐	I do so hesitatingly
☐	I do so begrudgingly
☐	I try my best to discourage it
☐	I resist their efforts to have a change

Explain your answer here:

Section G

In this section we are trying to establish the obstacles frustrations and changes principals are most concerned with

On a scale of 1 to 5 with 5 being most and 1 being least, rate the degree to which each of the following presents a feeling of frustration or being discouraged in being able to carry out your duties.

	1	2	3	4	5
Federal Bureaucracy	☐	☐	☐	☐	☐
State Bureaucracy	☐	☐	☐	☐	☐
School District Bureaucracy	☐	☐	☐	☐	☐
Lack of Money	☐	☐	☐	☐	☐
Lack of other resources	☐	☐	☐	☐	☐
Lack of parent involvement in the school	☐	☐	☐	☐	☐
Poor Preparation of Teachers	☐	☐	☐	☐	☐
Lack of Teacher Commitment	☐	☐	☐	☐	☐
Poor instruction of teachers	☐	☐	☐	☐	☐
Lack of parental involvement at home	☐	☐	☐	☐	☐
Lack of Student Motivation	☐	☐	☐	☐	☐
Poor basic skills of students	☐	☐	☐	☐	☐

On a scale of 1 to 5 with 5 being most and 1 being least rate the degree to which each of the following presents a genuine obstacle or restriction that cause you the most concern as you try to carry out your duties as principal.

	1	2	3	4	5
Federal Bureaucracy	☐	☐	☐	☐	☐
State Bureaucracy	☐	☐	☐	☐	☐
School District Bureaucracy	☐	☐	☐	☐	☐
Lack of Money	☐	☐	☐	☐	☐
Lack of other resources	☐	☐	☐	☐	☐
Lack of parent involvement in the school	☐	☐	☐	☐	☐
Poor Preparation of Teachers	☐	☐	☐	☐	☐
Lack of Teacher Commitment	☐	☐	☐	☐	☐
Poor instruction of teachers	☐	☐	☐	☐	☐
Lack of parental involvement at home	☐	☐	☐	☐	☐
Lack of Student Motivation	☐	☐	☐	☐	☐
Poor basic skills of students	☐	☐	☐	☐	☐

On a scale of 1 to 5 with 5 being most and 1 being least rate the following for the things that you would change to make you more enabled in your role as principal.

	1	2	3	4	5
Federal Bureaucracy	☐	☐	☐	☐	☐
State Bureaucracy	☐	☐	☐	☐	☐
School District Bureaucracy	☐	☐	☐	☐	☐
Lack of Money	☐	☐	☐	☐	☐
Lack of other resources	☐	☐	☐	☐	☐
Lack of parent involvement in the school	☐	☐	☐	☐	☐
Poor Preparation of Teachers	☐	☐	☐	☐	☐
Lack of Teacher Commitment	☐	☐	☐	☐	☐
Poor instruction of teachers	☐	☐	☐	☐	☐
Lack of parental involvement at home	☐	☐	☐	☐	☐
Lack of Student Motivation	☐	☐	☐	☐	☐
Poor basic skills of students	☐	☐	☐	☐	☐

Section H

On a scale of 1 to 5 with 5 being most and 1 being least indicate the extent to which each of the following represents important knowledge you should have to be a successful principal.

	1	2	3	4	5
Knowledge of people	☐	☐	☐	☐	☐
Curriculum	☐	☐	☐	☐	☐
Law	☐	☐	☐	☐	☐
Fiscal	☐	☐	☐	☐	☐

On a scale of 1 to 5 with 5 being most and 1 being least indicate the extent to which each of the following represents important skills you should have to be a successful principal.

	1	2	3	4	5
Interpersonal	☐	☐	☐	☐	☐
Communication	☐	☐	☐	☐	☐
Leadership	☐	☐	☐	☐	☐
Management	☐	☐	☐	☐	☐
Technical	☐	☐	☐	☐	☐

On a scale of 1 to 5 with 5 being most and 1 being least indicate the extent to which each of the following represents important attributes you should have to be a successful principal.

	1	2	3	4	5
Positive disposition	☐	☐	☐	☐	☐
Visionary	☐	☐	☐	☐	☐
Ethical Values	☐	☐	☐	☐	☐
Good Communicator	☐	☐	☐	☐	☐
Organizer	☐	☐	☐	☐	☐

Section I

We are trying to understand the importance of student behavior in the operation of the school

To what degree is student discipline an important aspect of a good school?

Explain

Do you know of teachers who rarely have student discipline problems?

Yes ☐ No ☐

If yes, what is it that those teachers do that results in good student discipline.

Describe what it is that teachers' do that have poor student discipline.

Do you see a relationship between a teachers' classroom discipline and students' academic achievement?

Do you think that schools should teach "virtues" or "character?" Why or why not? Do you have any formal programs in your school that focus on character education?

Section J

There is probably a lot of advice you could give to someone preparing to become a school principal but if there was one single piece of advice you could give what would advise.

Section K

How has the influence of high-stakes testing influenced your role as a principal? How is it influenced teachers, parents, and students?

Section L

To what extent is the achievement gap a problem in your school? What efforts have you made to reduce achievement differences in school?

Section M

To what extent has technology make a difference in your school? How has it influenced teachers, counselors, and students? How has it influenced your role as principal?

Section N

Can you think of an example of research-generated knowledge which you found useful in some aspect of your job as principal? If so please tell me about that knowledge.

All educators need access to new expert knowledge. What sources of information do you find most useful when looking for new professional ideas? On a scale of 1 to 10 (highest), how would you rate each of these types of information sources for the technical knowledge they provide:

a. Professional meetings of state or national education associations

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

b. Workshops

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

c. Professional Journals concerned with education

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

d. Professional Books concerned with education

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

e. Professional Bulletins from regional or national information sources

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

f. Professional Bulletins from district or state authorities

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

g. Newsletters from professional organizations

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

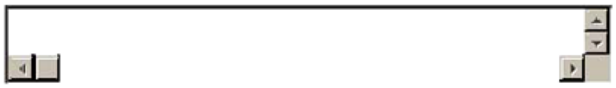
h. University or college courses that you attended for certification or a advanced degree

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

i. Internet

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

j. Other sources (please explain)



☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

On a scale of 1 to 10 (highest), how would you rate the quality of the educational research that you've read over the last year?

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 ☐ 10

What would it take for you to rate it a 10?

APPENDIX B

UNIVERSITY OF HOUSTON CONSENT

TO PARTICIPATE IN RESEARCH

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UNIVERSITY of HOUSTON

COMMITTEES FOR THE PROTECTION OF HUMAN SUBJECTS

August 14, 2008

Miss Charmaine Hobin
c/o Dr. Angus J. MacNeil
Educational Leadership & Cultural Studies

Dear Miss Hobin:

Based upon your request for Exempt status, an administrative review of your research proposal entitled 'How Influential do assistant principals perceive educational research as related to their job responsibilities?' on July 16, 2008, according to institutional guidelines.

The review has determined that your project is exempt under category 4.

As long as you continue this project using procedures described in this project, you do not have to reapply to this Committee for review.* Any modification of this approved protocol will require review and approval.

If you have any questions, please contact Alicia Vargas at (713) 743-9215.

Sincerely yours,

Rosemary Grimmet
Executive Director
Research Services

Rosemary Grimmet
Exec Director Research Services

*Approvals for exempt protocols will be valid for 5 years beyond the approval date. Approval for this project will expire July 1, 2013. If the project is completed prior to this date, a final report should be filed to close the protocol. If the project will continue after this date, you will need to reapply for approval if you wish to avoid an interruption of your data collection.

Protocol Number: 08316-EX

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