

PROBLEM-SOLVING EXPERTISE IN THE SCHOOL
SUPERINTENDENT: A QUALITATIVE ANALYSIS

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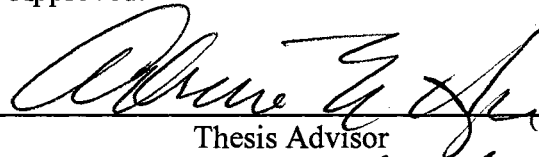
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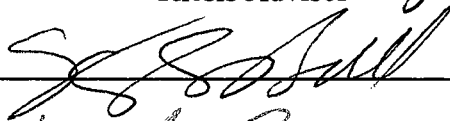
Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
December, 2003

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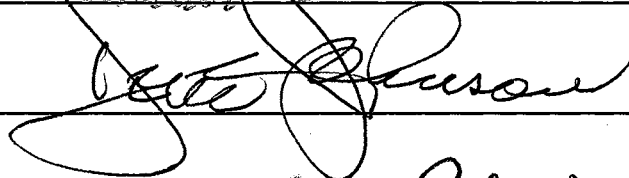
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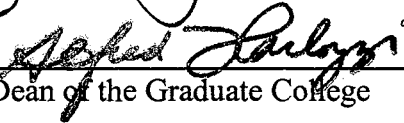


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ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to Dr. Adrienne Hyle, committee chairperson and dissertation advisor, for her guidance through this project. She showed great enthusiasm in seeing me succeed and in the topic of my study. I would also like to thank the members of my dissertation committee: Dr. Ken Stern, Dr. Deke Johnson, and Dr. Kay Bull. Each made valuable comments and offered additional insight during committee meetings, and I appreciate their suggestions and openness to serve on this committee. I would also like to thank each of my professors and the faculty and staff of Oklahoma State University and Oklahoma State University – Tulsa Campus for all of their help and the answers they all willingly provided to my many questions.

I would like to thank my good friend Keith who went through this process with me every step of the way. I enjoyed all of the classes we took together, the discussions these classes led to, and the time we spent pushing each other through these respective studies.

I also owe thanks to all of the people who took part in this study. Those of you who took time out of your busy schedule to let me walk in your shoes through the interview process, I sincerely appreciate your help.

To my parents and my in-laws I owe a great debt, as you never let me get too busy or tied up in my life to let this dream go. Thank you for pushing me and for forgiving me when I was too busy to spend the time with you that I should have.

Finally, I want to express my gratitude and love to my family; my wife Melody, and my children Zackary and Avery. This was a goal of mine before I was married and had children and I thank you for allowing it to become your goal also. Your support and encouragement is what led me to see it through. This is something we all did together, and it could not have been accomplished without your help and sacrifices. I love you all and will make it up to you in the future.

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CHAPTER I

Design of the Study

With so many superintendents reaching a point in their careers where retirement is looming, educational institutions are beginning to see an influx of new administrators in both public and private school districts. In fact, Hess (1988) reported that 50% of principals and three fourths of all superintendents will be able to retire by 1994. The new replacement administrators are for the most part coming from the teaching field, as most school administrators do. Although these new administrators may be highly skilled teachers, “there is little evidence that a person highly skilled in one domain can transfer that skill to another” (Chi, Glaser, & Farr, 1988, p. xvii).

Superintendents who have been in the business for many years have grown accustomed to answering questions, making decisions, and solving problems. As administrators go through this process, their expertise level grows, and in time, they develop a personal philosophy on how a school should be run. As expertise is gained and a philosophy is determined, many difficult decisions can be made by following this philosophy. However, gaining expertise and honing a personal philosophy is usually a very time-consuming task. “Although differences in talent seemingly make it much easier for some people than others, we know that in general it takes a great deal of time and experience to become an expert” (Bereiter & Scardamalia, 1993, p.16).

In his study of experts' biographies, Hayes (1985) contends that it takes approximately 10,000 hours of experiences for an individual to gain expertise in a specific field. A superintendent's expertise, then, is something that has to be acquired over a great period of time. It is created through many various methods such as seeing decisions other administrators make, personally having success or failure with decisions that have been made, and the simple act of just gaining experience on what things need to be accomplished to make a school run more successfully. Leithwood and Steinbach (1992) explain

When learners take advantage of social interactions among peers (as when a group of five or six school administrators try to solve an authentic problem together), the opportunities are increased for tacit knowledge to become explicit and thereby examined. Further, it is then possible to acquire the formerly tacit knowledge of one's colleagues, developed through hard experience. (p. 323)

In sum, an educator's expertise and personal philosophy is going to be ever growing, ever changing, and usually becoming more specific as more knowledge is gained.

Bereiter and Scardamalia (1993) have shown "that experts are not better thinkers. They are better at solving problems in their domains because of the knowledge they can draw on, knowledge which is so effective that it enables experts to get by with less thinking than their lowlier colleagues" (p. 42). Richmond, Gobet, Staszewski, and Simon (1996) agree. "Experts simply employ, at a very high level of skill in their domains of expertise, the basic information processes that other human beings employ at lower levels of skill, but the experts have access to much richer knowledge bases than are available to non-experts (p. 115).

Cognitive psychology research effectively began in 1972, with the publishing of the Newell and Simon book, *Human problem solving*. This beginning point has developed into what we now call “expertise.”

An expert is commonly defined in a very pragmatic way as an individual who operates at

the level of an experienced professional: an MD in medicine, a Master or Grandmaster in chess, an experienced systems programmer, a practicing attorney, an engineer employed in design and so on (Richman et al., 1996, p. 168). Bereiter and Scardamalia (1993) further this definition as “the effortfully acquired abilities that carry individuals beyond what nature has specifically prepared them to do” (p. 3).

With so many new, and oftentimes, young superintendents entering the field, many of them have not had a great opportunity to hone their educational philosophies. These new superintendents have spent time in the classroom, or on the athletic fields, and may know how they feel about certain issues from their own vantage points, but may not have had the opportunity to look at many educational issues from an administrative perspective. “Past experience has made you what you are, and knowledge is an aspect of what you are” (Bereiter & Scardamalia, 1993, p. 45). While a great deal of research has been conducted in education concerning the cognitive development of students, little has been done to understand the cognitive development needed of the educational administrator.

Expertise, when related to administrator problem-solving processes, deserves to be researched for dual purposes. First, the ability to take part in adequate hiring practices

by responsible groups (Boards of Education, hiring committees, etc.) depends on their ability to recognize expertise in subjects. Their only other viable alternative is to hire interviewing services or to depend on programs known for developing successful administrators. Both of these can be costly endeavors to school districts.

Because many superintendents are retiring and opening up positions for younger educators with less experience, it is more important than ever that universities develop programs geared to train these applicants. The impact these retiring superintendents are having on state schools has not been lost on the State of Oklahoma. To combat these losses, the state has relaxed the standards for gaining administrative certification. At this time, holding an advanced degree, for instance a Masters or higher, and being certified to teach in a minimum of one subject area are the only requirements one must possess to be allowed to test for a principal or superintendent certificate. These two qualifications coupled with two successful years' teaching, administrative or supervisory experience in a public school is all that is necessary for an individual to accept a position as a school administrator (School Laws of Oklahoma 2003, Sec 180.9).

In addition to aiding the administrator shortage, proponents of this change believe that this practice is useful in allowing schools the opportunity to more easily bring in leaders from other fields. Leaders from the business world or managers of corporations could possibly bring many valuable problem-solving or management skills to the position of superintendent of a school district. The philosophical issue that school districts consider, however, is whether or not it is essential for school leaders to possess an educational background to effectively run and lead a school district.

While researchers in the field of expertise agree that “talent, skill, specialization, professionalism, experience, authority and credentialing” (Bereiter & Scardamalia, 1993, p. 5) are not necessarily traits that assure expertise, it stands to reason that lowering administrator standards will help keep an supply of potential administrative candidates at a healthy level. The question remains, however, are these candidates adequately trained for the position. Although this practice circumvents the work of the universities in training prospective administrative candidates, it does however relieve the shortage of applicants and open the door for applicants from other fields. Because applicants are coming to job interviews with less training and experience than ever before, it is imperative that research be done to improve the hiring practices that school boards, hiring committees, etc. use to hire school administrators.

Secondly, administrator education and preparation programs use research on expertise in training aspiring superintendents. Unlike individual sporting events, where performance is measured in absolute units of time, Ericsson (1996) contends that measurements of expertise in decision-making processes cannot be made accurately at this time. Research into expertise is needed to impact knowledge bases in various realms such as decision-making and the measurement and teaching of expertise.

Administrators often have to make numerous decisions on rather small matters.

But the mark of expertise in administration is to make decisions that not only take care of the immediate problem but that at the same time support the higher-level goals of the organization (Bereiter & Scardamaila, 1993, p. 56-57).

Administrators make hundreds of decisions a day. Many of these decisions, while minute, impact countless students and parents within their school district. Despite the number and

the importance of the decisions that administrators make on a daily basis, there has been almost no research done on the decision-making process as a whole. In addition to the absence of research in this area, very few programs are attempting to teach administrators the skills necessary skills effectively solve problems. This problem is negatively impacted by the lowering of state guidelines for administrator certification, thus giving universities even less reason and opportunity to develop these programs. Until these changes are made and definitive guidelines are determined to help hiring committees choose administrator candidates based on their expertise in problem-solving, mistakes in hiring are going to continue to be made.

It is universally agreed upon by researchers that acquiring knowledge connected to the realm of expertise is a vital component of expertise. Chi, Glaser, and Farr (1988) point out that experts excel in their specific domain due to their large amount of knowledge of the domain. In his study of chessmasters, de Groot (1946) determined that experts acquire large amounts of applicable knowledge that they then are able to access for use when needed in their expert domain. Ericsson, Krampe, and Tesch-Romer (1993) investigated performance by identifying training activities that individuals take part in that they term “deliberate practice.” They suggest that it is the lifetime of accumulated practice that impacts the expertise or ability of an individual, not the amount of practice the individual undergoes on a daily or weekly basis.

Bereiter and Scardamalia (1993) say that experts work on the edge of their competence. As new skills are acquired, “these new skills combine with old skills to form super skills, which make it possible to progress toward still more complex problems calling for still more complex skills” (p. 98), thus expertise is gained.

Problem-solving roles in education can be divided into several areas. However, for this study, an examination of problem-solving expertise will be analyzed for the role of the superintendent. Hopefully this study can add to the existing knowledge on expertise, thus helping future administrators grow into their role more quickly.

Statement of the Problem

Beginning superintendents usually are not novice to education, but may be new to administration. They enter the education profession prepared for their work by college coursework and related life experiences. This coursework and life experience serves as the foundation upon which they rely when solving problems (e.g. making decisions, answering questions, determining more practical solutions, etc). Unfortunately, not all new superintendents are successful. Bereiter and Scardamalia (1993) would explain differences in performance in terms of varying problem-solving expertise founded on their topology of informal, impressionistic, and self-regulating expert knowledge.

Numerous studies have been done measuring expertise patterns for doctors, nurses, physicists, magistrates, chess players, musicians, athletes, and college professors (Finnegan & Hyle, 1998), none have explored the development of expertise in public school superintendents. This study will focus on differences in the problem-solving abilities of superintendents, as demonstrated by the Baker/Bottoms "Characteristics of Expertise" Scale adapted from the works of Bereiter and Scardamalia (1993).

Purpose of the Study

Regardless of the amount of administrative experience an administrator has, administrators have many various lifetime experiences to draw from that help their problem-solving skills. These experiences may come from other positions they have held, whether within education or not, personal experiences, or perhaps an expanded knowledge base simply due to having spent time under a mentor with a great deal of expertise.

These kinds of experiences, to use Bereiter and Scardamalia's (1993) terms, would cause variances in the amount of informal knowledge, impressionistic knowledge, and self-regulating knowledge that a person possesses. Using this line of reasoning, the purpose of this study encompasses four connected aspects:

First, through interviews and analysis, to examine expertise through looking at the differences in the problem-solving abilities of a wide range of superintendents, both new and long tenured.

Second, incorporating the ideas of Bereiter and Scardamalia as discussed in their book *Surpassing ourselves: An Inquiry into the Nature and Implications of Expertise* (1993), to analyze the problem-solving strategies of these same superintendents through the lens of a topology of expertise. Further, determine if the skills can be assigned to one of three categories (Level 1 or novice, Level 2 or post-novice, and Level 3 or expert) by building on Bereiter and Scardamalia's (1993) use of informal knowledge, impressionistic knowledge, and self-regulating knowledge.

Third, to develop a professional expertise scale to aid in rating these administrators' degrees of informal, impressionistic and self-regulating knowledge. This information will help in assessing the effectiveness of the scale for training programs and administrator selection guidelines.

Finally, given the data collected, to describe other findings that present themselves during the course of this study.

Theoretical Frame

The consistent (and unsurprising) finding of research is that experts can solve problems in their domain that novices cannot solve, or in the case of problems solvable by novices, experts can solve them much more rapidly and accurately.

(Richmann et al., 1996, p.169)

Superintendents are expected to possess certain knowledge that they accumulate coursework they have taken, legal issues, or school board policies. It is expected that all administrators, regardless of level, should have this basic knowledge base. However, Bereiter and Scardamalia (1993) introduce three additional types of knowledge that they call hidden expert knowledge: informal, impressionistic, and self-regulating. Informal knowledge is “much more highly developed [in experts] and usually more heavily influenced by formal knowledge” (Bereiter & Scardamalia, 1993, p.54). Experts solve problems and tend to view problems more logically than novices. Impressionistic knowledge could be defined as “the distillation of experience, dominated by a few salient events” (p. 46). As further evidence, Bereiter and Scardamalia (1993) cite Broudy (1977);

“what goes by the name of ‘intuition’, an attribute ascribed to brilliant researchers, designers, and trouble-shooters, usually amounts to a strong impression that something is interesting, promising, or amiss” (p. 56). Finally, self-regulating knowledge is described as “knowing how to manage oneself” and “regulating anxiety and concentration” (p. 60). Experts not only possess the knowledge necessary to be successful, but are also able to effectively use that knowledge, even in high pressure or tense situations.

For this study, administrators who draw the majority of their informal knowledge from past experiences, graduate courses, or reading administrative publications would be considered a Level 1 or novice administrator. Administrators that do these things but who also take informal knowledge and combine it with new knowledge or research to create an advanced level of informal knowledge would be considered Level 2 or post-novice administrator. Lastly, the administrator who does these things, yet also has a knowledge base that spans the spectrum of administration or is synthetic and tends toward the applied would be considered a Level 3 or expert administrator in the realm of informal knowledge.

For this study, in the impressionistic category, novice administrators are expected to be able to see intriguing questions to ask from viewing data, and can often offer new approaches to ideas. Post-novice administrators add to this by seeing innovative opportunities in new areas and can see the bigger picture, often asking broader questions or perceiving broader applications. The expert administrator does these things as well as synthesizing information to form a better solution for the problem, as well as seeing the need to draw insight together.

Lastly, in the self-regulating category, novice administrators attempt to juggle multiple demands, manage stress, work to manage their time, and try to legitimize themselves by learning self-critiquing techniques and improving professional visibility. The post-novice administrator has less legitimacy anxiety, so focus increases. He or she also develops a professional network, accepts problems solving challenges with zeal, and acquires new formal knowledge by choice, such as reading journal articles or continuing his or her education. The expert administrator concludes this category by being able to competently delegate responsibility, being in control and confident of his or her professional life, and taking on leadership with confidence. Table 1 summarizes the operationalization of the schema described above for this study.

Table 1

Baker-Bottoms “Characteristics of Expertise” Scale

	Informal -Sum of life knowledge composed of life experiences, course work, etc.	Impressionistic -Intuition gained from the knowledge of past experiences.	Self-regulating -One’s knowledge of performance requirements and the management of that knowledge.
Level 1 Novice Administrator	Limited life experience to integrate into professional life. <ul style="list-style-type: none"> • Gains Knowledge from reading in specialty area. • Draws from Graduate Coursework. • Draws from Teaching Experience. • Draws from Informal knowledge of colleagues. 	Has knowledge acquired from experience but often unable to synthesize into problem-solving. <ul style="list-style-type: none"> • From informal knowledge acquired in experience sees intriguing questions to ask of original data. • Uses a guide to problem-solving Often sees literature as inadequate of problem-solving. <ul style="list-style-type: none"> • Must rely on input from others. 	Difficulty in managing stress. <ul style="list-style-type: none"> • Juggling multiple demands. • Difficulty in time management. Struggles to control professional life- Legitimacy issues. <ul style="list-style-type: none"> • Can see self in role. • Has professional visibility. • Begins to learn self-critiquing techniques.
Level 2 Post-Novice Administrator	Expanded life experiences and formal knowledge. <ul style="list-style-type: none"> • Draws from past experiences. • Relies on input from others, colleagues, faculty. • Combining informal knowledge with new knowledge (research) to form new higher level of informal knowledge. 	Begins to use knowledge from experience in problem-solving and considers community in solution. <ul style="list-style-type: none"> • Sees innovative opportunity within new areas, but still relies heavily on guide. • Perceives broader questions or applications. Begins to use existing literature to reinforce solutions.	Less difficulty in managing stress. <ul style="list-style-type: none"> • Acquires new formal knowledge by choice. • Accepts decision-making challenge without reservation. • Begins to trust and delegate responsibility to subordinates. Controls selected areas of professional life. <ul style="list-style-type: none"> • Less legitimacy anxiety, so formal focus increases. • Develops professional networks.
Level 3 Expert Administrator	Wealth of life experience and formal knowledge. <ul style="list-style-type: none"> • Informal knowledge that cuts across the spectrum of administration. • Broadening interest in educational issues. • Informal knowledge is synthetic and trends toward applied. 	Able to use knowledge from experience to synthesize information and create solutions to problems. <ul style="list-style-type: none"> • Creative problem-solving. Sees the need to draw insights together in problem-solving.	In control of professional life. <ul style="list-style-type: none"> • Feels little or no stress. • Can delegate responsibility Content and confident with professional life. <ul style="list-style-type: none"> • Can take on leadership with confidence. • Helps others with leadership.

Procedures

The design of this study is a qualitative examination of superintendent expertise and the level to which that expertise is developed. Eight superintendents from various sized districts were interviewed. The superintendents were asked to discuss what they do, how they do it, and how they solve problems and make decisions. They discussed areas such as where they look for input, who they include in the process, and what other external factors should be considered when making a tough decision. Their responses were used to determine their expertise level as it corresponded to the topic of problem-solving. Once this level was determined, the subjects were placed in the appropriate category of the Baker/Bottoms “Characteristics of Expertise” Scale.

Researcher

I am a high school principal in a mid-sized rural school district in the heart of the United States. While I am in my second decade of working in an educational field, I am only in my seventh year as a school administrator. I spent two years as an Assistant Principal/Athletic Director, and I am in my fifth year as the High School Principal of that same district.

I have worked in two districts during my career, spending my teaching and coaching years in one district, and then moving to my present school to take an administrative position. As I think about the decisions that I am asked to make, and the problems that I face each day, I began to realize that my thinking on some of these issues

has been refined through the years. I do not think I have made many wholesale changes to my philosophy, but as I have gained expertise, I have realized that I look at some issues differently, and oftentimes make tough decisions more confidently.

Noticing this change in how I go about my job and how I think I have grown in my position is what caused me to gain an interest in this topic. I believe that studying how administrators gain expertise will be interesting and informative as I continue to hone my skills and develop expertise in my position.

Data Needs and Sources

To gain the information needed for this study, superintendents from semi-rural school districts were needed. The careers of these individuals varied in length of time in position. Each superintendent interviewed held an advanced degree and specialized certification that is accountable to their job position. Five of the subjects held only a Master's degree, while the other three had earned an Educational Specialist or Doctoral degree.

Superintendents were chosen as the subject because I have never held the position of superintendent. This should aid in keeping any personal biases and "expertise" out of the study.

Permission to interview human subjects was secured from the Institutional Review Board of Oklahoma State University. (Appendix A contains a copy of the approval form.)

Data Collection

The McCracken (1988) long interview method was used to gather data about individual demographics and levels of expertise. These interviews were 45 to 90 minutes long and comprised of semi-structured open-ended questions. To better understand where each of my subjects was in their professional life, descriptive, demographic, and chronological background information was obtained from each of the superintendents taking part in the study. This information included gender, degrees held, years of experience as a classroom teacher, years of experience in administration, administrative positions held, years in current position, and leadership positions held during their teaching career. The interview culminated with an in-depth discussion of how the interviewee would work out a conclusion to a topic of current interest: “Money is tight everywhere. Administrators are faced with making tough decisions about personnel, money and facilities, to name a few. This is obviously a stressful process. Using this example, how did you go about making these decisions, and from who else did you take input from? Explain the process in as much detail as possible.”

The interviews took place at the time and location of the subjects’ choice. Because the interviews occurred during the summer months, and superintendents are predominantly on a 12-month contract, the majority of the superintendents invited me to their office during working hours for their interview. Seven of the eight interviews were held during the working day in the superintendents’ offices. The eighth subject met me at a neutral site in the early evening.

Asking the subjects to choose the interview time and location allowed them the opportunity to feel more comfortable and less threatened during the interview process, as well as causing less of a disruption to their work day. The interview questions centered on educational philosophy, job description, methods, and problem-solving practices of public school administration.

Data Analysis

Data analysis was conducted by coding of interviews of the superintendents. Patterns were looked for which reflect hidden expert knowledge outlined by Bereiter and Scardamalia (1993). After compiling and coding the information, superintendents' responses were placed in categories of the Baker/Bottoms "Characteristics of Expertise" Scale. Information deemed important by respondents but inconsistent with Bereiter and Scardamalia was also reported.

Significance of the Study

Regardless of the position held, educators should always strive to improve their performance in the job duties. The lack of research on how to develop expertise in administration makes it increasingly difficult for superintendents to grow in their positions and improve their skills. If all improvement must be done through a trial and error process, then young administrators have a long and difficult road in gaining these skills.

As these superintendents struggle in their efforts to gain knowledge and expertise, the faculties that they work with, and the schools that they lead will also struggle. Growing pains will always exist, but much self-improvement can be done by staying abreast of current literature. This study hopes to increase the current pool of research on this topic.

More importantly, this study will attempt to provide some literature on how superintendents gain necessary skills and expertise while honing their philosophies. The growing pains that beginning superintendents deal with will continue to exist, but research of this type may speed up the learning curve for new administrators to improve their skills, enabling them to become an effective leader more quickly.

The research on expertise considers and analyzes the work methods of specialists, those who have attained the highest levels of performance, whether it is in the playing of chess, mountain-climbing, magisterial decision making, or medical diagnostics. In addition to these analyses, experts have been contrasted with novices, revealing a vast chasm. Recognizing this gap, however, does not explain how a novice becomes an expert. (Finnegan & Hyle, 1998, p. 9).

According to Bereiter and Scardamalia (1993), virtually all current research in this area compares experts with great amounts of experience to novices with little experience. This topic's lack of research makes this study even more essential.

Summary

The purpose of this study is to examine problem-solving strategies of superintendents, to place these superintendents on a “Characteristics of Expertise” Scale determined from Bereiter and Scardamalia’s (1993) topology of hidden expert knowledge, to assess the usefulness of this “Characteristics of Expertise” Scale for understanding differences in superintendent thinking, and then to describe any other findings that reveal themselves during the process of this study. This study also hopes to provide research on this topic, where very little exists at this time.

Reporting

The available literature on this topic will be discussed in Chapter Two. Although little literature actually exists on this topic, there is supporting research that should be introduced and discussed. After the data is collected, it will be presented in Chapter Three. The analysis of the data will occur in Chapter Four, and the final chapter will contain the findings, conclusions, implications and recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

In this chapter, research on administrator and superintendent problem-solving was discussed. Later sections include the history of expertise, and the three types of hidden expert knowledge as defined by Bereiter and Scardamalia (1993) are broken down into sub-categories and presented. Literature is reviewed which shows how components of hidden expert knowledge are broken down hierarchically.

Problem-solving

School administrators spend a great deal of time each day answering questions and solving problems. In fact, Lyons (1990) claims that secondary school principals may average up to 1000 interactions a day. These interactions range from the miniscule (handling minor discipline infractions) to the major (school consolidation). Although superintendents may not average this great a number of interactions a day, it stands to reason that their number would range well into the hundreds. Adding to the difficulty level in solving these problems is that, oftentimes, the administrator is hit with these problems without notice. Successful administrators not only must be adept at solving problems, but also must be able to think on their feet if they are to survive.

In his book concerning management practices, Vail (1989) contends that executives in today's world "live in a world of permanent white water" (p.2). Administrators go through their day solving problems that arise and dealing with their managerial duties, although everything going on around them may be very chaotic. Seemingly quiet days may turn difficult without notice. Leithwood, Steinbach, and Raun (1993) describe this concept in their article on superintendent group problem-solving processes.

It is the prevalence of wicked or ill-structured problems, just below the surface of the water, that explains why even a light breeze often results in whitecaps. And, sometimes, apparently benign problems turn out to be deceptively wicked. (p. 364)

Because of the turbulent nature of administrative positions, it is imperative that administrators have adequate problem-solving skills if they have any hope of being successful in their position.

In separate studies detailing the problem-solving abilities of CEO's of large corporations and school administrators, researchers have found that successful managers are beginning to employ problem-solving skills. Although the number of problems CEO's of corporations solve may be much fewer than the number a school administrator solves during a year's time, research has shown that they learn to rely on research and group collaboration to more effectively solve the problem. Farson (2002) states "interviewing CEO's, one learns that they make only a few really important decisions in a year and then only after prodigious research and consultation and soul searching" (p. 1). Studies by Leithwood and Steinbach (1990) support evidence that as administrators

exhibit more “expert-like” behavior, move up the job ladder, and gain experience, they realize the need to collaborate with peers when faced with difficult problems rather than to tackle them alone.

A great deal of the research in administrator problem-solving uses information-processing theory as its theoretical framework (Leithwood & Stager, 1989; Leithwood & Steinbach, 1991a; Leithwood & Steinbach, 1991b; Leithwood, Steinbach, & Raun, 1993). This “theory proclaims man to be an information processing system, at least when he is solving problems” (Newell & Simon, 1972, p. 9). In information-processing theory, problem-solving consists of six unique components: interpretation, goals, principles and values, constraints, solution processes and moods.

In information-processing theory, problems are the “gap” between what is now taking place and what we would like to take place. Routine problems are those in which the problem-solver knows both of these locations and the necessary procedure to travel from one to the other. If the problem-solver lacks knowledge of any of these three elements, the problem is less well-structured, and more difficult to solve. Thus, the difficulty level of the problem combined with the relevant knowledge possessed by the solver determines the complexity of the problem. During the problem-solving process, it is the problem-solver who determines whether the problem is well-structured or not. If the problem-solver believes the problem is well-structured, then it is (Leithwood, et al., 1993).

Expert problem-solvers, with more experiences and knowledge, find many problems routine that novice administrators may find difficult. So the same problem may be considered well-structured, or ill-structured, depending on who the problem-solver is.

“Expertise is associated with both effective and efficient problem-solving within a particular domain of activity (like leading a school system)” (Leithwood, et al., 1993, p. 366). Experts solve well-structured problems daily with little or no conscious thought. The problem is commonplace and recognized by the expert as a problem that he or she knows a great deal. Simon (1993) reinforces this point by claiming that experts in their domain recognize clues to many of the situations that they encounter. These clues help the expert do their job more effectively and with less thought.

Further research suggests that expert problem-solvers, in comparison to novice problem-solvers 1) develop a better understanding of the problem and devote more time to formulation of the problem before attempting to solve it; 2) adopt a broader range of goals for problem-solving; 3) are capable of using their values more frequently and as substitutes for knowledge when solving ill-structured problems; 4) anticipate constraints that may arise during the process more effectively; 5) prepare for collaboration by providing a detailed background of the problem and clearly outlining the problem-solving process; and 6) are more self-confident about their ability and are in better control of their intense moods when solving ill-structured problems (Leithwood, et al., 1993).

Summary

Problem-solving processes have been extensively studied in many settings outside education. Administrator problem-solving processes, however, have largely been ignored until the work of Kenneth Leithwood and his associates (see, e.g., Leithwood & Stager, 1989; Leithwood & Steinbach, 1991a; Leithwood & Steinbach, 1991b; Leithwood,

Steinbach, and Raun, 1993.) Due to the number of problem-solving interactions that school administrators face on a daily basis, this is an area that researchers must continue to explore.

Most of the research on administrator problem-solving processes has been guided by information-processing theory. The six components of the model, and how expert problem-solvers accomplish these components follow: 1) making sense of information by comparing it known variables (Interpretation); 2) decomposing the problem into more manageable pieces with precise goals (Goals); 3) using internalized standards for guiding actions and thoughts, influencing these actions and thoughts of collaborators, and morally judging the collaborators during the problem-solving process (Values); 4) recognizing and overcoming the constraints that hinder accomplishing these said goals (Constraints); 5) taking the necessary overt or covert actions needed to achieve the goals (Solution processes); and 6) being able to remain calm, confident, and to use past experiences as a guide to solving the problem (Mood) (Leithwood, et al., 1993).

History of Expertise

An expert is someone who knows more and more about less and less, until eventually he knows everything about nothing. (Anonymous)

Although it is my sincere hope that this is not the true definition of an expert, there are a wide range of definitions of expertise, ranging from formal definitions to working definitions. Formally, Merriam-Webster's Dictionary (2003) defines expertise as "specialized knowledge", while the American Heritage Dictionary (2003) defines

expertise as “skill or knowledge in a particular area.” In either case, they agree that an expert possesses knowledge in a particular realm at a different degree than the average person.

As stated in Chapter One, Bereiter and Scardamalia (1993) give a more working definition of expertise when they define it as the “effortfully acquired abilities that carry us beyond what nature has specifically prepared us to do” (p. 3). They go on to explain how expertise differs from learning. Animals have the capability of learning. Some animals, such as seeing eye dogs learn very complex tasks. So what sets expertise and learning apart?

What sets learning for all species apart from expertise in humans, is that the intentionality of expertise is uniquely human. Human beings set a goal and pursue the goal, where animals simply learn what they are taught. Humans often even gain expertise to the point of making extraordinary endeavors seem natural. Bereiter and Scardamalia (1993) contend that “expertise has to take into account the process of acquisition” (p. 4). Due to the intentional effort it takes, Olympic swimmers are experts and fish are not. To gain expertise, an individual must reach a plateau beyond natural abilities (Bereiter & Scardamalia, 1993).

Although expertise has been around forever, only in the past thirty years have researchers truly began to study how it is gained. Newell and Simon’s (1972) book, *Human problem solving* began the true study of expertise in individuals. Finnegan and Hyle (1998) point out that many studies have been done concerning expertise from fields as varied as doctors to chess players, yet very little research has been done on educational administrators.

Bereiter and Scardamalia (1993) believe that researchers must solve three problematic issues before beginning to understand expertise.

1. The “idea that knowledge replaces thought implies that experts, contrary to popular beliefs, may actually do less thinking than novices.”
2. The idea that the “knowledge that makes expertise possible is so finely adapted to performance, it cannot have much generality outside its domain.”
3. How does “such marvelous knowledge come about?” (p. 31)

In their attempt to research these issues, Bereiter and Scardamalia (1993) defined three types of hidden knowledge that experts possess. These hidden knowledge types may be applied to any area in which there is demonstration of expertise. For this project, that area is public school superintendent expertise. The three hidden types of expert knowledge, as defined by Bereiter and Scardamalia (1993) are informal knowledge, impressionistic knowledge and self-regulating knowledge.

Hidden Expert Knowledge and School Administration

Administrators of public schools are expected to have a standard pool of knowledge from which to draw, regardless of experience. This pool of knowledge is largely made up of knowledge gained from college course work, past experiences, review of legal concerns, professional organization updates, and school board policies. General knowledge and common sense also play a vital role in developing this core knowledge base. Joseph Claudet (1998) supports this point by stating, “school principals begin with a basic set of core knowledge and skills. However...the important processes of

developing and maturing as school leaders often occur in a variety of school contexts and typically over a career of application and experience” (p. 84).

As these processes of developing and maturing occur, an individual’s knowledge base grows. Bereiter and Scardamalia (1993) contend that as these developmental processes occur, and the knowledge base grows, the individual is actually increasing his or her hidden expert knowledge. It is their opinion, that the more advanced these levels of hidden expert knowledge become, the greater the individual’s expertise.

These types of knowledge encompass life and work experiences, intuition, self-worth, and the ability to function during high stress situations. The amount of these types of knowledge that administrators possess, as well as how they incorporate them into their problem-solving processes is what sets novice and experts apart. In the sections that follow, these types of hidden knowledge are operationalized for school administrators through the Baker-Bottoms “Characteristics of Expertise” Scale.

Informal Knowledge

The Baker/Bottoms “Characteristics of Expertise” Scale describes informal knowledge as “the sum of life knowledge composed of life experiences, course work, etc. Everyone has knowledge connected from past experiences. This informal knowledge that everyone has is called common sense. Some people, however, effectively combine their informal knowledge with large amounts of formal knowledge from a specific domain. These people have the capabilities to operate at an expert level in their domain. “Experts have a great deal of knowledge that has the same informal character as common sense,

but it is much more highly developed and usually more heavily influenced by formal knowledge” (Bereiter & Scardamalia, 1993, p. 54).

To make the transition from having common sense to using informal knowledge in an expert-like manner depends on many different variables. Bereiter and Scardamalia (1993) contend that the level in which an individual is able to enhance his or her informal knowledge with formal knowledge is one of the primary differences in the amount of expertise that individual possesses.

Experts have knowledge bases that encompass a wide range of material within a specific domain. Experts also have highly developed formal knowledge (knowledge from coursework, networking with colleagues, and research) that they combine with a lifetime of experiences in their domain. In addition to the formal knowledge that they possess, however, experts also have many past experiences that they gain knowledge from. Coupling this formal knowledge with a wide array of past experiences works to significantly increase a person’s knowledge base in a specific domain. As they continue to gain experiences, they combine these experiences with their informal knowledge to continue to increase their degree of informal knowledge. These past experiences greatly increase the expert problem-solver’s informal knowledge base, thus allowing the problem-solver to successfully solve a wider array of problems, and be more effective in problem-solving.

While coursework, research and formal knowledge are the basis for informal knowledge, novices will attempt to solve problems by relying on this coursework or their formal knowledge. This may be enough to allow the novice problem-solver to effectively

solve standard problems, but this person would have much more difficulty with problems that are outside the scope of normal day to day activities.

Novice problem-solvers may also expend a great deal of energy dealing with irrelevant information when solving problems. In their 2001 journal article on knowledge transfer, Hinds, Patterson and Pfeffer state, “Applying solutions to problems without domain-specific conceptual knowledge typically leads to inadequate solutions. Novices frequently attend to irrelevant information involving problems” (p. 1235).

It is important to note, however, that although past experience is vital to informal knowledge, these experiences are greatly enhanced by formal knowledge. “Although experts have, as we have emphasized, vast amounts of hidden knowledge that could not have been obtained formally, this hidden knowledge is nevertheless consistent with and influenced by formal knowledge” (Bereiter & Scardamalia, 1993, p. 65).

Summary. Everyone possesses informal knowledge; we call it common sense in most cases. This informal knowledge takes on many different shapes and forms as it is unique to each individual. For administrators, however, this knowledge base should be comprised of a strong background of formal knowledge, and enhanced with a multitude of past experiences. Expert administrators increase this hidden expert knowledge base by continuing to synthesize new experiences and new formal knowledge from coursework, research, etc.

Impressionistic Knowledge

The second category of hidden expert knowledge is impressionistic knowledge. Impressionistic knowledge is knowledge a person possesses that is connected to mood, feelings or values. Virtually every experience a person goes through has impressions registered to it. Oftentimes, these feelings are relegated to the background and are largely unnoticed. Sometimes, however, these feelings and associations play a larger role and are essential and inseparable from the knowledge. This is impressionistic knowledge (Bereiter & Scardamalia, 1993).

Most administrators will readily acknowledge the impact of values on their personal affairs and professional practices.... They reflect an individual's basic motivations, shape attitudes, and reveal the intentions behind actions. For this reason, values are considered important influences on administrative practice (Begley & Johansson, 1998, p. 399).

Depending on the amount of true impressionistic knowledge that an administrator possesses, these values can have a positive or negative impact on problem-solving. Decisions made due to administrator values without being accompanied with the proper amount of domain knowledge may often be poor decisions.

Novice administrators have impressions gained from past experiences, but without the proper knowledge base, they are unable to put these impressions to use as true impressionistic knowledge. Experts, however, have more accurately combined their impressions with the necessary knowledge to make these impressions a useful part of the knowledge. As experts gain experiences, they have more information to draw on in their

long-term and short-term memory when making decisions. This bank of experiences and memories are the basis of impressionistic knowledge.

Some modern theories of memory claim that we do not so much recall information as relive events. Events that leave strong impressions make the experiences more memorable, thus building our impressionistic knowledge (Minsky, 1980). As we relive these events we remember their positive or negative impact and our base of impressionistic knowledge grows.

Bereiter and Scardamalia state, “the most vital function of impressionistic knowledge in expertise ... is to provide a basis for practical and theoretical judgments” (1993, p. 56). Administrators in any field have to make countless decisions every day. These decisions will not only impact the immediate problem, but will also oftentimes set a standard for decisions that will be made in the future to similar problems. Due to these concerns of setting a standard, administrators must be sure that their decision not only solves the immediate problem, but also supports the higher level goals of the organization.

Novice administrators, without a great deal of impressionistic knowledge to draw on, may often overlook the long-term effects of their decision. They may go by the book, relying on set policies, in an attempt to ease some of the pressure that accompanies decision-making and problem-solving. An expert administrator, however, will draw upon a larger reservoir of impressionistic knowledge and will take into consideration more complex relationships and outcomes before making the decision (Berieter & Scardamalia, 1993).

Expert administrators can also make their decision more quickly. Impressionistic knowledge plays a large role in what we commonly consider intuition. Bereiter and Scardamalia (1993) further make this point by stating, “The full repertoire of expert knowledge may later be brought into play, but the first move is likely to be on the basis of some impression not tied to any particular item of prior knowledge (p. 58). Thus, expert administrators quickly make preliminary decisions, while taking extra time to search for the long-term solution. Using the term hunches instead of impressions, Sergiovanni and Starrett (1996) agree with this idea by stating:

Rarely does teaching or supervisory practice emerge from other practice. Instead, hunches are at play and operating principles emerge as theories of practice that provide a more rational basis for what one does. Typically, hunches and operating principles are implicit, and when they are explicit they are not thought about systematically. The question...is...what are the theories (the implicit hunches and operating principles) that help shape the way they see their professional world and provide the basis for professional decisions and practice (p. 6)

This sequence of events, as described by Sergiovanni and Starrett (1996) is presented below:

Practices → Hunches → Theories of Practice → Principles → Practices

Impressionistic knowledge should be evident in school administrator expertise in various forms. When answering questions about problem-solving, an administrator with a great deal of impressionistic knowledge should competently sort through the series of possible accompanying problems that may result from making the wrong decision. They tend to become more creative, or able to “look outside the box”, when solving problems.

McCay (2001) contends that content knowledge is not enough to deal with today's problems, so successful administrators must develop habits of learning to link their knowledge and actions. Expert administrators should also have a strong background in personal job development and a vast amount of past experiences from which to draw. Due to this background, they should be able to solve problems or make decisions by taking their knowledge and combining it with their study of existing literature and current beliefs in an attempt to draw various insights together.

Role of past experiences. When being interviewed for Zemke and Zemke's article on leadership, University of Michigan Professor of Management Noel Tichy stated that in his opinion "80 percent of leadership development is life experiences on the job" (2001, p.46). Studies have found that most principals do not fully understand the nature of the position until they are in it. As one principal stated, "You don't learn to be a principal until you are one" (Erlandson, 1994, p.14). While administrators spend countless hours training and taking college courses to prepare them for administrative roles, it cannot be ignored that a great deal of knowledge comes from experiences.

Expert administrators have the ability to take knowledge acquired from staff development and college studies and combine it with knowledge they have gained from past experiences to make better and more effective decisions, or become more effective problem-solvers. Martin, Slemon, Heibert, Hallberg, and Cummings (1989) concur with this point by stating "The role of experience in the acquisition of expertise is pivotal because it is through experience that experts acquire an adequate knowledge base for

conceptualizing situational information in ways that permit effective conceptualization, problem-solving and action” (p.395).

Past experiences do not only relate to experiences connected immediately to the administrator, but also to knowledge the administrator gains from witnessing other administrators’ experiences and discussing concerns with colleagues (McKay, 2001). The longer an administrator has been in a specific field, the more opportunities he or she has had to build a network of fellow administrators. As this network grows, the administrator increases his or her opportunity to gain valuable experience from watching and talking to other administrators.

It is important to note, however, “although experience appears as an indispensable precondition for the development of expertise, time-in-role will not necessarily produce experts” (Allison & Allison, 1993, p. 304). Kennedy (1987) concurs by stating “experience can only contribute to expertise if practitioners are capable of learning from it” (p. 148), a point that has also been stressed by Schon (1983, 1987) and Schwab (1978). Although experience in a position does not guarantee expertise, there can be no doubting that past experiences aide in the gaining of knowledge and positively correlate with expert behavior in decision-making and problem-solving.

Role of existing literature. While impressionistic knowledge is in part intuition gained from past experiences, other factors can increase the reliability of this intuition. One of the most important of these factors is how the administrator uses his or her existing knowledge.

Successful administrators build their impressionistic knowledge at a quicker rate by keeping up with current ideas and research over topics that he or she may face each day. In effect, the road to becoming an expert administrator will probably only be traveled by someone intent on being a lifelong learner. One practicing principal states “there’s no such thing as status quo. You’re either going ahead, or you’re going back” (Ellis, 1990, p.67). Administrators who are unwilling to move ahead and continue their education through training, class work or educational literature are finding the educational world passing them by.

As administrators take more classes, read more literature on administrative subjects, and do more research, they begin to understand that they do not have to find out everything through personal experience. Other administrators to some degree have dealt with most any situation that an administrator may face. Administrators are realizing that there is no reason to reinvent the wheel. By reading and using existing literature, it stands to reason that administrators will find themselves more capable of compiling facts and solving problems without making as many incorrect decisions along the way. Hansen (1980) agrees:

To remain current, to assist in the dynamics of societal and world change, schools must reflect the ability to adapt and improve.... The hallmark of a true profession is one where the most recent and vital information is disseminated and used by its members. (p. 67)

Expert administrators realize the need to rely on every available source to help them make the best decision possible when faced with a difficult problem. They are lifelong learners who are anxious to increase their own knowledge by reading about

others' successes and failures and taking part in professional growth opportunities (Dimperio, 1993). They understand that by doing these things, they will in turn increase their own chances of success.

Summary. Impressionistic knowledge is the knowledge that comes from impressions made upon us by events that we have experienced. Although this knowledge is generally enhanced through time, past experiences and existing literature play a vital role in the development of impressionistic knowledge.

The expert administrator will realize that many factors come into play when making decisions and solving problems. Often, these decisions are better made through relying on past experiences, using the network of colleagues that each administrator builds, and finally, using existing literature taken from other administrators who have worked to solve the same problems. When an administrator learns to put these factors together, he or she vastly increases the knowledge base to draw upon when making important decisions.

Self-Regulating Knowledge

Self-regulating knowledge deals with knowing how to take care of oneself. Further it is developing the ability to stay under control during intense or difficult situations. Finnegan and Hyle (1998) point out that:

Self-regulating knowledge refers to an individual's knowledge of what is required of them to operate at an expert level. It is not the self-regulating behavior itself.

Possessing the knowledge or knowing what is necessary and acting on that knowledge are very different things. (p.16)

Many people may possess the knowledge necessary to behave expertly in their specific domains, yet be unable to do so because they do not possess the methods to manage themselves that would allow them to perform at this level. Experts have learned how to control their emotions and concentrate on specific tasks. This allows them to access the domain knowledge needed to behave expertly.

Experts in a specific domain learn to “regulate their attention so that almost all of it is concentrated on the immediate task, with just enough attention to the surrounding turmoil to keep them aware of it” (Berietter & Scardamalia, 1993, p.58). Professional football teams that believe they have the opportunity to win a championship will often sign a player that is on the downside of his career, but who has won championships before. This player may not have any more football knowledge than the other players, and his skills may definitely be diminished, but he “knows how to win.” This “locker room presence” that they possess is due to their self-regulating knowledge.

For school administrators, self-regulating knowledge assumes many forms. Managing stress and gaining self-confidence head the list. Expert administrators should be in control of their professional life, be able to delegate responsibility, take on leadership with confidence, and be content with their professional life. Administrators with these qualifications are definitely self-confident and content in their abilities, and should not have difficulty managing stressful situations due to their high self-confidence.

Stress management. “The desire to manage things well, to lead effectively, certainly creates pressures and stresses” (Lemley, 1987, p. 134). Regardless of the position held, administrators of all levels have numerous sources of stress and tension each day.

By their nature, schools are grounds for conflict. Although Kahn and French (1970) push the notion that mid-management jobs, such as building principals, are the most stressful, central office administrators are not immune to these stresses either. Areas such as conflicts with parents and lower administrators, dealing with such complex issues as finance, new legislation and unfunded mandates, as well as long workweeks, keep the pressure on these administrators (Booth, Bradley, Flick, Keogh, & Kirk, 1994).

In most cases, the superintendent is the last line of defense to solve a conflict before it goes before the local Board of Education. Any conflicts that the building principal can not solve, as well as conflicts between two administrators, must be handled by the superintendent. While these conflicts usually do not occur as frequently as they do on the building level, once they reach this level, they are usually major problems.

Finances are a large problem and source of stress for central office administrators. In 1994 alone, it was reported “approximately 20 states [were] involved in litigation or legislative review that could change the way they fund public schools” (Boothe et al., 1994, p. 39). In many cases, due to frequent news reports declaring low performance in public schools, taxpayers and property owners are becoming more reluctant than ever to pay taxes to support public education when they are not sure public education is working.

As taxpayers grow impatient, lawmakers often look to make major education reforms, sometimes funding the mandates and at other times, not. This new legislation

and educational mandates cause great pressures on financial managers and oftentimes lead them to change jobs. For instance, four years after Kentucky passed its Education Reform Act, 139 of its 175 superintendents changed positions. The message: revolutions and reforms are often the hardest on those working on the front lines (Boothe et al., 1994).

The increasing length of superintendents' work weeks is also a major cause of stress. Due to the numerous school activities, board meetings, community group meetings, and sporting events that center around today's schools, many superintendents may arrive at work at 7:00 a.m. and end the day at 10:00 p.m., when the last whistle blows to end an athletic event or the last note is played at the band concert. In addition to these school activities, they also are often away from home to attend conferences and legislative sessions. In fact, 38 percent of superintendents surveyed reported that their spouses complain about their long work hours (Boothe et al., 1994).

While these pressures and job stresses are great, expert administrators learn to deal with them and even thrive on the pressure. If they are not dealt with appropriately, this executive stress, or the physical and psychological toll inflicted on administrators by these increased pressures (Breslow & Buell, 1980) can begin to take serious health tolls or cause them to look for other positions, as reported earlier.

However, many administrators learn methods to deal with these pressures, thus lessening their negative effects. One of the most common methods of stress management discovered when taking a poll of school administrators was to separate themselves from the work environment for a short period during the workday itself (Swent, 1983). Closing the door and reading, taking a short drive around the school grounds, or visiting with

another faculty member about something not related to school, are methods some administrators use to accomplish this.

In a related study, 71 percent of the administrators surveyed stated that taking a “psychological break – temporarily setting the problem aside and getting involved in another activity” (Washington, 1982, p.391) was a very effective method of stress control.

Many administrators accomplish this by involving themselves with students more positively throughout the day. By taking part in classroom activities such as sitting in on Student Council meetings, or going to lunch with the Students’ of the Month, administrators are able to separate themselves from the routinely negative aspects of their jobs, while in turn, focusing on the positives.

In his article on managing stress, Lyons (1990) listed the following suggestions:

1. Do not allow each problem brought to you to become your problem.
2. Learn to delegate responsibilities and duties.
3. Give careful attention to your role as supervisor.
4. Find and maintain a network of trusted professional and personal friends.
5. Develop some activities that you can use to reduce your anxieties and stress.

(pp. 46-47)

As shown by the Baker/Bottoms “Characteristics of Expertise” Scale, administrators who are able to achieve most of these suggestions are administrators who are coping with the stress, dealing with it effectively, and are probably at the expert level in the self-regulating category.

Finally, one of the best methods of coping with stress, according to a recent survey, is to “approach the job with a sense of humor. Laughter is wonderful medicine and, as suggested by Donald Fisher (1978), may be one of the best and more easily practiced stress reduction techniques available to humans today” (Swent, 1983, p. 71).

In summary, administrators at all levels face numerous sources of stress and pressure each day. Learning to deal with these stresses is a major component in performing their duties in an expert-like manner.

Self-Worth. A second prominent trait of expert administrators in the realm of self-regulating knowledge, is high self-confidence and feelings of self-worth in their positions. According to Saunders (1984), self-confidence is necessary for success. Administrators who lack this confidence or often question themselves when making decisions have a more difficult time convincing others to see their vision of a successful school.

The self-confidence of a school administrator can have serious effects on the performance of the school. Studies have shown that improvement in self-confidence is often followed by increased performance, which in turn produces additional positive changes in self-confidence (Feltz & Mugno, 1983). As administrators develop in their positions and become more self-confident, this causes them to improve in the roles as school leaders, thus producing a powerful self-fulfilling prophecy.

Administrators can work to gain this necessary self-confidence in a variety of ways, including developing professional networks and/or finding a mentor, and taking part in classes or participating in administrator development programs. Expert

administrators tend to positively view themselves in their role, are comfortable in their role, and that these methods help them to achieve a greater level of self-confidence.

“One way for leaders to develop is by following the example of someone they respect, esteem, and want to emulate” (Diamond, 1978, p. 60). Finding a mentor is a very useful method in developing self-confidence. Whitaker (1995) quotes an anonymous principal from her study as saying “We need more time for reflection and an opportunity to interact with other professionals-mentoring and networking systems are needed” (p. 293). One step an administrator can take towards accomplishing this goal is by working closely with another administrator in his or her own district, or by spending time with administrators from nearby districts.

Oftentimes, administrators may have the opportunity to participate in mentor programs. In her article dealing with principal burnout, Whitaker (1995) contends that these programs are useful for both new principals and established principals. Beginning principals often have difficulty seeing themselves in roles or have issues with their legitimacy. Experienced principals also benefit because many are reluctant to seek assistance to problems even though schools are changing and it is impossible to know all the answers.

School administrators must also continue to grow educationally, not only for their own sake, but also for the sake of their schools. “Administrators need to be models of lifelong learning” (Sadowski, 1993, p. 47). Administrators cannot expect their teachers to improve upon their skills and grow in their profession if they themselves are unwilling to grow professionally.

Dimperio (1993) concurs by stating, “A good administrator is dedicated to professional growth and innovation... Any school district that wants to grow and prosper needs administrators who can suggest and implement fresh ideas” (p. 36). Hansen (1980) weighs in on this topic by saying “Renewal is characteristic of a dynamic and improving profession” and “in-service education is a means of assisting the professional educator to be the best he/she might become” (p. 68).

When studying supervision of cooperative learning techniques, Licklider and Niska (1993) found that:

Principals who participated in staff development rated themselves significantly more effective in providing feedback...and significantly more knowledgeable about cooperative learning concepts. These principals were also significantly more confident and experienced a higher degree of sense of efficacy. (pp. 375-376).

Bandura (1982) states that a sense of efficacy is one’s perception of his or her ability to affect valued outcomes through personal effort. He points out that an increase in self-efficacy results in efforts to persist. Thus, as one perceives himself to be able to improve his surroundings, he becomes more persistent in following his beliefs and goals, in turn leading to greater success and self-confidence. This study agrees with the earlier statement dealing with the self-fulfilling prophecy. As administrators learn more about their role through administrator development practices, they become more self-confident, thus allowing them to continue to improve their expertise in their position. In sum, school leaders who work towards developing professional networks and acquire new formal

knowledge by choice through administrator development and lifelong learning programs are working towards gaining self-confidence and feelings of self-worth in their positions.

Summary. Self-regulating knowledge refers to knowing how to stay under control and in control of the situation when dealing with intense situations. Knowing the correct answer to a problem is not necessarily possessing self-regulating knowledge. Being able to know the answer and perform in difficult situations is the measure of self-regulating knowledge.

Expert administrators often show their self-regulating knowledge by their ability to deal with and manage high stress levels. They also show the ability to stay in self-control and be content with their professional life, as well as possessing a great deal of self-confidence in their abilities.

Chapter Summary

While the idea of expertise has been around for centuries, cognitive psychology studies into expertise only began about 30 years ago. Although the pool of research on expertise is growing, there continues to be little research on expertise and the problem-solving process. The current research, however, points toward the idea that experts not only have more knowledge in a specific domain, but also have advanced knowledge when compared with novices in the same field.

In their book, *Surpassing Ourselves: An Inquiry into the Nature and Implications of Expertise*, Bereiter and Scardamalia (1993) supported this concept by defining three

types of hidden knowledge possessed by experts. They defined these types of hidden knowledge as informal, impressionistic, and self-regulating knowledge.

Informal knowledge could be defined as the sum of life knowledge. This knowledge is made up of everyday life experiences, work experiences, course work and general common sense. As administrators grow in their positions, this base of hidden knowledge usually expands.

Impressionistic knowledge is the knowledge connected to feelings, values and mood. As events that occur in our lives make impressions in our memory, we increase our impressionistic knowledge. Past experience with a continued research into existing literature play a vital role in developing this knowledge base.

Finally, the third type of hidden expert knowledge is self-regulating knowledge. Self-regulating knowledge can be defined as having the ability to take care of oneself or the ability to stay under control in a stressful situation. Possessing the knowledge is only part of the equation for expert behavior. Acting on the knowledge under periods of high stress is the second half of the equation. School administrators with high levels of self-regulating knowledge exhibit this quality by handling stress well and possessing a high feelings of self-worth and self-confidence.

CHAPTER III

Study Methods and Data Presentation

The purpose of this chapter was to describe the necessary procedures for collecting the data and presenting the data. Demographic data of the subjects in this study were also described in this chapter.

Data Collection Procedures

The use of the interview as a research method is nothing mysterious: An interview is a conversation that has a structure and a purpose. It goes beyond the spontaneous exchange of views as in everyday conversation, and becomes a careful questioning and listening approach with the purpose of obtaining thoroughly tested knowledge. The research interview is not a conversation between equal partners, because the researcher defines and controls the situation. The topic of the interview is introduced by the researcher, who also critically follows up on the subject's answers to his or her questions. (Kvale, 1996, p. 6)

To gain an understanding of what the subjects were trying to tell during their interviews, McCracken's (1988) four step method of inquiry was used.

Step 1

The first step in McCracken's (1988) four step method of inquiry was a complete literature review. After reviewing the history of expertise, it was found that only in the past 30 years have researchers really begun to do studies on this subject. Although research has recently increased in this field, there is still very little data dealing with expertise in the field of educational administration, specifically the superintendency.

The review of the history of expertise led to Bereiter and Scardamalia's (1993) work detailing the three types of hidden expert knowledge: informal, impressionistic, and self-regulating. It is around this work that this study was based.

Step 2

The second step of this process was to investigate cultural categories. There are distinct advantages and disadvantages when an interviewer has an intimate relationship with the culture being investigated. This intimacy, or insight, has the negative potential to dull the researcher's power of observation and analysis. In contrast, however, it has the advantage of greatly enhancing the researcher's intimate acquaintance with the subject, thus giving the researcher a unique insight to the inner workings of the culture that most researchers from other fields cannot hope to develop (McCracken, 1988).

As I began the cultural review, I considered my experiences in administration. I am a high school principal in a mid-sized rural school district in the heart of the United States. I am in my thirteenth year in education, but I am only in my seventh as an

administrator. I spent two years as an assistant principal/athletic director, and am in my fifth as the high school principal. I have worked in only two districts during my career, spending all of my years teaching and coaching in one district, and then moving to my present school to take an administrative position. While I possess Superintendent certification, I have never worked in a central office as a superintendent or assistant superintendent.

To take advantage of the intimate knowledge of administration, yet avoid personal biases due to over-intimacy, I chose to interview superintendents. This allowed the opportunity to

engage the investigator in two processes: familiarization and defamiliarization.

Without the first, the listening skills needed for data collection and analysis are impoverished. Without the second, the investigator is not in a position to establish any distance from his or her own deeply embedded cultural assumptions.

(McCracken, 1988, pp. 33-34)

I attempted to create a contrast by choosing superintendents of different ages, gender, and years of experience. Although superintendents from various sized school districts were chosen, all were in a 150 mile radius of my home.

Step 3

McCracken's third step is designed to discover cultural categories. During this step, I was looking for patterns between the subjects, and key words or phrases that would allow me to place them in the correct locations on the Baker/Bottoms

“Characteristics of Expertise” Scale, in terms of informal, impressionistic, and self-regulating knowledge. This was accomplished by finding out demographic information, developing and using a set of non-directive questions to enhance interview flow, and employing probing techniques during the course of the interview.

The first step of this process was completed by asking questions designed to find out some general demographic information. These questions were very basic, generally pertaining to educational experience, degrees held, positions held, and years on the job as both teachers and administrators. No questions about personal life were asked to keep the interview on a professional level.

Secondly, a set of opening non-directive questions, known as grand tour questions (Spradley, 1979; Werner & Schoepfle, 1987) was developed to help keep the interview flowing, yet sustaining it in an unobtrusive way (See Appendix B). These grand tour questions had two primary purposes: 1) to allow the subjects to tell the story in their own terms, and 2) to give the opportunity to phrase the questions in a general and nondirective manner, allowing the respondents the ability to talk without overspecifying the substance of their answer (McCracken, 1988). These questions were developed around four primary areas; 1) Superintendent Structure and Characteristics, 2) Essential Superintendent Knowledge Bases, 3) Superintendent Feelings of Legitimacy, and 4) Problem-Solving Processes.

The first question dealing with superintendent structure and characteristics was “In your opinion, what characteristics do good administrators possess?” This question was designed to discover what innate qualities a person needs or what qualities a person needs to develop to become a successful administrator. This question was usually

followed up by asking what qualities they had seen from administrators that they considered being experts in the field.

The second question, “What is your philosophy of education?” attempted to determine how closely the characteristics these superintendents deemed important for successful superintendents were followed in their own educational philosophy. These first two questions were used just to get an overview of the superintendent’s feelings about what components are necessary for success. The answers to these questions also gave me insight into the factors that helped shape them into the style of administrator that they became.

“What factors have shaped your decision-making process the most?” was the third question. This question was designed to find out what external factors, such as college coursework, past experiences, network of other superintendents, educational literature, etc. shaped their decision-making process and philosophy of making tough decisions. The answers to this question gave some insight on the superintendent’s informal and impressionistic knowledge.

The fourth question, “How do you deal with stress?” was used as a technique to determine the superintendent’s self-regulating knowledge. This question was asked to help determine the superintendent’s feelings of legitimacy in his/her role, the ability to delegate, and the ability to deal with stress and lead with confidence.

The fifth question was used as a capstone question intended to sum up and draw everything together. This question was “Money is tight everywhere. Administrators are faced with making tough decisions about personnel, money, and facilities, to name a few. This is obviously a very stressful process. Using this example, how did you go about

making these decisions, and from who else did you take input from? Explain the process in as much detail as possible.” These responses gave me an inner look as to how the superintendent has gone about trying to solve this difficult problem, and who he/she has included in the process.

Probing techniques were used while asking these questions and many secondary questions arose during the course of the interview. The data collected was intended to provide insight into the decision-making/problem solving expertise each of the subjects possessed. The collected data was utilized to place these subjects on the Baker-Bottoms “Characteristics of Expertise” Scale which helped determine each of the subjects’ level of expertise in the three types of hidden expert knowledge: informal, impressionistic, and self-regulating.

Step 4

The fourth step linked the research findings to the literature review. In Chapter II, I presented many educational articles and research findings that dealt with problem-solving processes. Later, in Chapter III, the data from the subjects’ interviews was reviewed to determine how it corresponded with this prior research. This was accomplished through an analysis of the data.

Analyzing the data is a five stage process. The first stage takes each individual utterance, and then finds what is useful by turning it into an observation. The second stage develops these observations according to the transcript and later to previous researched literature. The third stage focuses on the interconnection of the observations.

The fourth stage takes the second-level observations and scrutinizes them collectively, searching for patterns of intertheme consistency and contradiction. Finally, the fifth stage takes these patterns and themes, and subjects them to a final process of analysis. This final process of analysis is accomplished by taking the themes from each interview and bringing them together in common threads. Cultural categories are unearthed and become analytic categories. When this is accomplished, the investigator possesses these general and abstract properties, thus the observations become “conclusions” and are ready to be presented (McCracken, 1988). This fourth step is discussed in greater detail in the fourth chapter, Analysis of the Data.

Summary

In summary, the data was collected in the following sequence:

- Step One: Development of the grand tour questions.
- Step Two: Interviewee consent was secured by telephone (See Appendix C).
- Step Three: Subjects were given an informed consent form, which they were asked to read, ask questions, and sign (See Appendix D).
- Step Four: The interviews were conducted and individually recorded.
- Step Five: Transcription of the interviews.
- Step Six: Subjects were sent a letter asking general experience questions to confirm what was discussed during the interview (See Appendix E).
- Step Seven: Presentation of the data.
- Step Eight: Analysis of the data.

Participant Demographics

The subjects in this research project were superintendents in rural to suburban school districts. Seven male subjects and one female subject were interviewed. This worked out to about 88% male subjects and 12% female subjects. This ratio is comparable to the state average of approximately 90% male superintendents to 10% female superintendents (Oklahoma Directory of Education, 2003). These superintendents headed schools that ranged in size from Class B, K- 8th grade (approximately 250 total students) to Class 4A (approximately 2200 total students).

Public schools in this state are divided into classes ranging from class 6A (largest) to class C (smallest). They are divided by size which is determined by their average daily membership. The first four classes are comprised of 32 schools. The fifth class is comprised of 64 schools. The smaller three classes are determined by rules which can cause their numbers to vary. These classifications are refigured every two years. The entire classification system is determined as follows:

1. Class 6A is comprised of the 32 largest schools playing eleven-man football.
2. Class 5A is comprised of the next 32 largest schools playing eleven-man football.
3. Class 4A is comprised of the next 32 largest schools playing eleven-man football.
4. Class 3A is comprised of the next 32 largest schools playing eleven-man football.

5. Class 2A is comprised of the next 64 largest schools playing eleven-man football.
6. Class A is comprised of the remaining schools playing eleven-man football.
7. Classes B and C are comprised of the smallest 72 Class A football playing schools that petition to play eight-man football. These 72 schools will be divided approximately in half. (Oklahoma Secondary Schools Activities Association Administrator's Handbook, 2003)

The years of superintendent experience ranged from one to 15. All but one of these superintendents also had prior administrative experience before taking a superintendency. The total administrative experience ranged from nine years to 24 years. Total years in education ranged from 17 to 32.

Prior to becoming an administrator, each of the subjects held some type of leadership position within his or her respective school district. These various positions included, but were not limited to, head coach of an athletic team, counselor, Vocational Agriculture teacher, and county Co-Op director who supervised various programs from four districts within the county.

Each subject held at least a Master's degree, and two held Doctoral degrees. While not actively working on a degree, two had earned hours towards their doctorate and were intending to finish. Pseudonyms were given to each participant to maintain confidentiality. Participants were randomly given a common presidential last name. Table 2 summarizes these demographics.

Table 2

Subject Demographic Data

Name	Gender	Size of School	Years of Admin. Exper. (Incl Supt.)	Years of Superintendent Experience
Adams	Male	3A	10	3
Kennedy	Male	4A	19	9
Lincoln	Male	3A	13	6
McKinley	Female	A	11	3
Roosevelt	Male	4A	24	15
Taft	Male	B	9	9
Truman	Male	4A	13	1
Washington	Male	A	10	2

At the time of the study, Dr. Taft was a superintendent of a Class B, K - 8th grade rural school. He had been superintendent of that school for nine years. Prior to becoming an administrator he had been a teacher and coach for eight years, eventually working his way up to a head coaching position. This superintendent position was his first administrative position.

Mr. Truman, superintendent of a Class 4A suburban school, had just finished his first year as a superintendent. His highest degree was a Master of Education in School Administration. He had been a teacher and coach for eight years, and had held various administration positions for 13 years. He also coached while holding an administrative position for seven years, so his total coaching experience was 15 years. Many of these years were as a head coach and/or athletic director.

Mr. Lincoln was a superintendent at a Class 3A rural school. He had just finished his sixth year as a superintendent, but had only been in his present position for half of a year. His highest degree was a Master of Education in School Administration, but he had hours towards his doctorate and was considering starting again. He had been a teacher for 10 years, and held administrative positions for 13 years. During his time as a teacher, Mr. Lincoln had central office counseling duties, as well as head coaching duties.

Dr. Kennedy was a superintendent of a Class 4A rural school. He had held two superintendent positions, one for seven years, and he had been in his present position for two years. In addition to these administrative roles, he spent eight years in two principal positions, and two years in an assistant principal position, adding up to 19 years of total administrative experience. Prior to that, he spent 10 years in five different coaching and teaching positions. During this time, he served as a head coach in more than one district. Dr. Kennedy held a Doctorate of Education in Educational Administration.

Ms. McKinley was a superintendent of a Class A rural school. Her experience began with 18 years as a teacher in four different schools, teaching grade levels from elementary to high school. She then spent three years in a Cooperative supervising a Federal grant for four school districts and handling drug education for seven school districts. She served as an elementary principal for three years, spent four years as a middle school principal, one year as a high school principal, and was just completing her third year as superintendent for a total of 11 years administrative experience in four different districts. She had 32 total years in education, and held a Master of Education degree.

Mr. Washington was a superintendent of a Class A rural school. For 18 years, he taught and coached at numerous schools, at times holding a position of head coach, before eventually moving into an administrative position. He had been an administrator for 10 years. He spent his first four as a middle school assistant principal, then four more as an elementary principal, while spending the last two as a superintendent. He held two Masters degrees, one in Secondary Education and one in Educational Administration. In addition to this, however, he had completed the coursework for a Doctorate in Education, and was lacking only the dissertation to complete this degree.

Mr. Roosevelt was a superintendent of a Class 4A suburban school. His background varied from most of the other subjects in that he had never held a building level position before becoming a superintendent. All of his administrative experience had come in the central office. He spent his first six years as a college teacher. Mr. Roosevelt then moved to the a public school system, spending one year as a teacher, while also acting as the local FFA (Future Farmers of America) advisor. Of his 24 years of administrative experience, eight were as a transportation director and support services director in one district, before moving to another district for one year as the Director of Operations. Both of these positions resemble an assistant superintendent position. After that he spent 15 years in three superintendent positions, three in the first, 10 in his second position, and he had just finished his second year in his present position. His highest degree is a Master of Education, however he had some hours past this degree to enable him to gain superintendent certification.

Mr. Adams was a superintendent of a Class 3A rural school. He spent eight years as a teacher and coach before serving the next six as assistant principal/athletic director

and coach in the same district. Many of his coaching years were as a head coach. From there, he served one year as an assistant principal in a Vocational-Technical school before moving back to his first district as the superintendent. He had just completed his third year as superintendent, and had spent 17 of his 18 years in education in the same district. His highest degree is a Master of Education. He did, however, have hours past his Master's and was contemplating pursuing his doctorate. A breakdown of the subjects' educational experience and leadership positions held is summarized in Table 3.

Table 3

Subject Education Experience				
Name	Years of Teaching Experience	Total Years in Education	Highest Degree Held	Leadership Positions Held
Adams	8	18	M.Ed.	Head Coach
Kennedy	10	29	Ed.D.	Head Coach
Lincoln	10	23	M.Ed.	Counselor/Head Coach
McKinley	21	32	M.Ed.	County Co-Op Supervisor
Roosevelt	7	31	M.Ed.	Vo-Ag/FFA Advisor
Taft	8	17	Ed.D.	Head Coach
Truman	8	21	M.Ed.	Head Coach
Washington	8	18	M.Ed.	Head Coach

Summary

Seven men and one woman were asked to take part in this study. Each was a superintendent from a district within a 150 mile radius of my home. These subjects were

superintendents at schools that ranged from Class Size B to Class Size 4A. Each had an advanced degree, a requirement to be an administrator in this state. Six hold Master's degrees and two hold Doctoral degrees.

The subjects were alike in that they each held advanced degrees, had at least eight years of teaching experience, and had at least nine years of experience in an administrative position. Each of these subjects also held some type of leadership position during their teaching tenure. Many of the subjects were head coaches, some had counseling experience, one was a County Co-Op Supervisor, and one was a Vocational Agriculture teacher in charge of the local FFA chapter.

They differed in their routes to the superintendency. Two had worked in only two districts during their entire career, while many of the subjects had worked in numerous schools districts. There were also great differences in the size of the districts that they were working at during the time of the study. The average daily membership ranged from approximately 250 to 2200 students.

Data Presentation

The final section of this chapter is dedicated to reporting the data collected during the interviews. Response to the five grand tour questions yielded data in four major categories: 1) Superintendent Structure and Characteristics, 2) Essential Superintendent Knowledge Bases, 3) Superintendent Feelings of Legitimacy, and 4) Problem-Solving Processes.

Superintendent Structure and Characteristics

The interview questions fostered discussion of structures that respondents had patterned their own administration after as well as characteristics of other administrators they had emulated earlier in their careers. Although there was an occasional overlapping of ideas where two different respondents discussed the same characteristic or structure, primarily each subject took a different path when listing vital characteristics of successful administrators. The high points of each of these conversations follow.

Superintendent characteristics. Dr. Taft believed that the most important trait for being a successful superintendent was the ability to make your staff feel like a family.

If you can have a family oriented school, where you view the school as your family, you treat them the way you would treat your family. A good administrator looks at that and makes it a good place for people to come and work.

In accordance with this belief, Dr. Taft felt that a family oriented school allowed the superintendent the opportunity to trust his employees more in their roles.

(This) environment has fostered my allowing people to be who they are. One thing I don't do is look over people's shoulders. We hire people and I expect them to be the expert of what they do. I allow people to do what they are good at.

Like Dr. Taft, Mr. Truman felt that being a good people person was very important. He added to that characteristic good communication skills. He believed both were necessary for the successful superintendent to possess.

Communication skills are just critical because so many things are interpreted differently. You can get three people in the same room and you say one thing and it will be interpreted three different ways by the time they leave. I would probably say just being a people person is so imperative that I don't care what problem they have and are bringing to you; that better be the most important problem of the world that day to you. Just your demeanor and the way you address people I think is very, very important.

Ranking closely behind communication skills and being a people person were organizational skills, according to Mr. Truman.

You just juggle so many things. You're juggling school, community, state, all the requirements, your guidelines, federal and state guidelines. You just better be organized and if you're not, this isn't the place for you.

Mr. Lincoln commented along the same vein when he asserted that common sense and being able to put yourself in others' shoes when making decisions and dealing with people were the most important attributes a superintendent must have.

The biggest thing is common sense and defining common sense might to some people mean different things. I think it's important to be able to put yourself in positions with different people. How would a person in that role feel if I implemented this? Fairness is something that, if people feel like they are being treated fairly, it really creates reactions and many times it's difficult to deal with and they may not be logical, and so you've got to be able to put yourself in those different positions and how would a parent feel if this policy was passed or how would a student feel, or how would a teacher feel or a support personnel, and then

be able to come up with some sort of a reasonable adaptation of those rules that treat everybody in a good manner and sometimes that means thinking different than has been traditionally done.

Dr. Kennedy took more of a philosophical view when listing characteristics of, good superintendents, listing good sense of right and wrong as well as leadership skills.

One of them, I think, is a good sense of right and wrong, and being able to do what is right and not get any pressure (down on you). Of course there is a certain amount of leadership and being able to accept responsibility because it can be a very lonely place at times if you accept that responsibility and make the decisions that need to be made and go on.

Later in the interview, Dr. Kennedy made a very interesting point about administration by saying that he thinks it takes the right type of personality to be a successful superintendent.

Well, I just know that a lot of administration people on the graduate level, a lot of classes try to deal with whether administration or being a principal or superintendent is a skill or is it an art or is it learned or is it acquired? I think it is a combination of both. I don't think it is strictly a skill in that you can just learn it no matter what. I think there's an art that is acquired. You have to have a certain personality; you have to have certain traits that are inherent to you because there are certain personality types that I don't think can do this job and be successful. If you are (too far) to either extreme, either too rigid or too flexible, wishy-washy, I think you have a lot of problems. There's a wide range in there, but I think there

are some people that just aren't suited to this no matter how much training they have.

Ms. McKinley answered the question from a completely different perspective than the prior subjects when she listed three primary characteristics that a successful superintendent should possess.

I think a good administrator has to be a good listener. I think a good administrator has to be a good follower. I've never asked anyone to do or expected anyone to do something that I wouldn't do myself. I've (also) found that I'm kind of a pretty much by-the-book person. That tends to keep me out of trouble because I don't forget what I did the last time and it doesn't matter who comes in if you're a by-the-book person. If you have a rule, follow the rule. If it's not worth following, then get rid of it.

She also felt that everyone should be treated the same, although she had some interesting observations as to the problems that can sometimes cause.

I feel like everybody should be treated the same. You know, people say that, they give that lip service, but that's not always the case. And, believe it or not, that can cost you, especially in small places, a lot of problems because certain people have always been given maybe special treatment and they expect that.

While he stated that of course you have to have standard characteristics such as organization, structure, and communication skills, Mr. Washington quickly went past these to discuss setting goals and vision as important superintendent characteristics.

Vision, vision is the number one thing. Ok, this is where we're heading, this is what we want to do for our school. Collective commitment that you provide.

Shared vision, collective commitment, those are vanguards of a good administrator. You have to set goals and you have to set objectives and how to achieve them. I'm a firm believer that we move in the direction of dominant thought. Like a coach coaching football, wrestling, baseball or whatever, your team takes on the personality of your leadership. And I think your staff takes on the personality of your leadership also. If you're moving forward on curriculum and pure solid base..., your leadership qualities in the school and the curriculum is a dynamic process, it never changes. It's always moving forward.

Mr. Roosevelt did not necessarily discuss characteristics, but shared his basic educational belief in response to this question. He believed that everything came back to caring about kids and making decisions based on good moral principles.

First of all, if you're talking about a school administrator, I think you have to care about kids. I would hope that anybody that's in education would care about kids, but that's not necessarily always the case. I would think along with that you need to be a people person because we are in the people business. That's what we do.

When discussing another superintendent that he looked at as a mentor, Mr.

Roosevelt expanded on this thought in his description of his mentor.

[He] was a quiet gentleman, but when he spoke everybody listened because he had wisdom, integrity. He did what he did for a right reason. He loved the kids, the faculty. Just a very professional, caring, unassuming person. He led by example.

While this study focuses on expertise as it deals with problem-solving and decision-making ability, Mr. Adams was the only superintendent to mention these qualities in his characteristics of a successful superintendent.

You've got to be a decision-maker is the biggest thing. You've got to stand up and make a decision where other people struggle to make decisions, which is a direct result of being probably a good problem-solver because there is going to be the higher level you go in any organization, especially schools, you're going to have more complex problems, more complex decisions, and there is no easy answer. There are multiple correct answers. You've got to come up with the best decisions for the benefit of the school and the children. So I think being a decision-maker, willing to step up. That to me, I think, is what separates all educators. If we focus just on education, I think all educators have to have a love for kids and a desire to find the best educational plan for the kids that are involved with. To actually separate the leadership part, I think you've got to go into who are those people who will make the decisions when they need to be made.

Philosophy and values. When visiting on the subject of school structure, the discussion often turned to the idea of educational philosophy and how each superintendent wanted his or her school district to be viewed. Although many different ideas were discussed by these subjects, raising expectations, showing enthusiasm and promoting life-long learning among staff and students, and setting the proper kind of climate for both students and staff were all mentioned by at least two subjects.

Mr. Lincoln's educational philosophy dealt with raising expectations both for individual students and the school community as a whole. He expressed, however, that while doing this, a successful administrator does not impose his will as much as he encourages the stakeholders around him to alter their expectations to improve themselves.

The community, the school, the teachers; their expectation is that you're going to perpetuate this longer, that things are going to be the same. My role is to shape those expectations so that you leave them where they are, because if all you succeed in now is what you expect in the past, the guys in the caves, which we'd still be in the caves if all we did was what was done before. So you've got to grow beyond this generation, got to go to the next generation. We've got to do more than what we've done. That expectation isn't there yet. Expectation is just for what is going on now. And so to shape expectations and change expectations to move is a real challenge, and the way to do that is to shape cultures. A culture perpetuates and supports those expectations. And if you want those expectations to change, you've got to change the culture that supports those expectations. And when you're moving toward expectations that aren't even there yet, that means that you're shaping a culture that will support, that is willing to challenge and lead beyond and grow. In the school setting, to really go anywhere, you can say, well, I'm going to impose my vision on my people and on my students. That's not an effective way to change. The effective way is for the students themselves, for the staff themselves, to develop a culture that says we want to grow and be better than we are now, and move beyond that.

Dr. Kennedy also discussed goals and raising expectations when discussing this topic. He took more of a pragmatist's view, however, by pointing out that the goals that are set should be reachable, and that, bottom line, we are here to provide daily instruction even though that doesn't seem very exciting.

There are some things I'd like to see and there are some things that I know are more realistic we can accomplish. I guess in tying all this together, an awful lot of what we do in administration is practical application or just getting along and getting by and trying to maintain but at the same time trying to direct all that towards a certain goal that is providing the best education possible. I don't think you can get lost in pie in the sky goals and accomplish great things, nor can you simply just sit back and say, well, how did we do it last year, we're doing it the same way and just get in a rut. What you're going to do to expand and explore a little bit, but keep in mind that we do have functional goals to provide day to day coaching for all the kids here and that sometimes is just a grind. It's not always a cutting edge type of thing.

Unlike any of the other superintendents, Mr. Truman discussed teaching styles and how it is important to find out how each student can learn the best.

I know you hear adages and you hear things all students can learn but you know, it's basically true. It is just finding that line that kids can actually, and with your teachers too. It may be a teaching style, something they have to work on. I don't know if it's so much of a philosophy for me as it is maybe just knowing a direction and what the needs of people and being able to identify those needs as far as students and teachers and the people around you. I'm not so sure that I can

say that I have this set philosophy about education because so many things are dictated by the things around you. Then again, you better be that person that can identify those things, that can see these things.

Although Ms. McKinley summed up her philosophy of education by stating “...my philosophy basically is education should be fun, it should be challenging, and it should be a life-long experience,” she focused her discussion on the importance of being enthusiastic and a life-long learner. She also felt that organization in the classroom was very important for teachers to have success in educating students.

I haven't quit learning. Everyday there's something that comes along and it's like, 'Oh my,' or 'Cool, I haven't noticed this before.' Or things change. You learn different ways to do the same things and I think if you're enthusiastic as a classroom teacher; I think all teachers would agree that if you're enthusiastic, I'm not going to say you're never going to have any problems but I've never really had a lot of problems in the classroom, and I think that's because of organization, structure and enthusiasm. When the students see this, even some that are reluctant, it's catching, it's contagious.

Mr. Washington stressed many of the same points as Ms. McKinley. He stated that superintendents and schools in general, had to be enthusiastic, positive and lifelong learners to be successful with today's students.

One of the things my philosophy is based on is over the years, I've been an administrator 12 years, and over 12 years how I base my philosophy is on master teachers. Those teachers... you have (the top) 5% teachers. They have the same kids and they may be teaching the same subject or whatever, but all of a sudden in

their classroom, the kids are achieving , they are on task, they behave. What makes them different? It's a horrible profession to be mediocre at, and why wouldn't you want to be good. (When) you start qualifying characteristics of master teachers, one of the huge things, the number one thing (is)... you're excited about what you teach. You're excited about your curriculum. Everything that we say to our staff is very positive. We move in the direction of our dominant thought. We always say positive things. That's the way we do it at this school. One of the things we talk about is our commitment to the profession. One of the things that I told the staff is this is a horrible profession to be bad at. It's not that much more effort to be good at what you do. Now how do you do that? One of the things we talk about is we're lifelong learners. Ok, do you believe that? If you believe that as an educator, then why aren't you doing it? Do you know how many books are written about classroom management, classroom structure, classroom discipline? If you're weak in that area, why wouldn't you want to improve it?

When making these statements, Mr. Washington made the same comment a couple of times, "there's no such thing as bad teachers, there's bad administrators." He believed that administrators must be sure that their teachers are keeping these basic philosophies, and if they were not, then it was the administrator's duty to help this teacher improve or to fire them.

I don't care if they taught the thing and have been there 20 years, if they're not doing a good job, then they need to be called to task, and I mean in a professional manner...

Mr. Roosevelt continued his earlier theme that dealt with caring about kids and making morale decisions when he commented on climate. He felt that if staff or students did not feel good about themselves, how could we expect them to be successful in their endeavors?

I'm big on climate within a school system or in an office or a classroom. Until you can open the door where people feel comfortable in their environment then they're never going to grow as an individual. So I think we need to create a safe warm environment where people feel good about being there. At the same time hold everybody responsible for their actions and the structure of discipline. You can have all those is the same climate, I think.

Later, he pointed at a drawing of a mother and child facing an old school that he had hanging on his wall. The caption under the drawing said "Is it good for kids?" As I talked to him, he expressed that if your decisions center around that question, you would most always be correct.

That sign right over there (points at drawing). It's pretty much the litmus test that we need . We need to use with any issue, that's all we're trying to do, what's right for kids.

Mr. Roosevelt concluded with the following statement discussing spiritual and moral background.

More times than not, if you surround yourself with good people and you're a good listener and you're deliberate in your thought and I think your spiritual values and your moral background is strong, and nine times out of ten, you're going to be ok. If you truly care about kids and people, and the spiritual values are where they

need to be, then you're always going to try to do the right thing. Most of the time everything is going to work out just fine.

When discussing his philosophy Mr. Adams gave a two part answer. The first part went along to a degree with the comments that Mr. Roosevelt had made. He stated that it was never too late to do what is right or to make the correct decision, regardless of past practices.

We have a philosophy around here; it's never too late to do the right thing even if it is a tough decision and is going to cause an uproar. If it is the right thing we do it, and even if it's traditionally they've not done the right thing, it is time to start doing it the right way.

His second point however, differed from each of the other subjects when he took an analytic approach to answering the question. He expressed an affinity for measuring the success of their schools, rather than simply relying on whether or not everyone is happy.

Too many times in education we make decisions just because it feels right. That's one of the reasons I don't mind the API scores that we have. I don't like some of the reasons that caused them to be developed, but if you twist it around into the right reason, the right reason is, before when you say you had a good school people would ask why. Well, that's because... we love kids. I like the mathematics break. I like having things that you can say, hey yeah, we reached that goal. I think that's why you see a lot of coaches in administration, is their goal, they'll set a goal and they'll achieve it. Our philosophy is measure it, if it doesn't work get rid of it, if it works, then use it. And while you have it, put everything in it that you can to make it work.

I thought it was very interesting that when I was visiting with Mr. Adams, he quoted the drawing hanging on Mr. Roosevelt's wall. He looked to Mr. Roosevelt as a mentor, and, although he did not specify the same philosophy as Mr. Roosevelt, he did feel we had to remember why we are in the profession, for the kids.

Another person is (Mr. Roosevelt)... and what I garnered from him was to make every decision and base it upon whatever is good for kids. That is a philosophy he goes by that he is very fond with and I just feel like he's got the people skills a lot like my own dad had and he combines that with his knowledge of schools...

Dr. Taft concurred with some of the points made by Mr. Truman and Mr. Lincoln in the first section when he stated that a successful school superintendent worked on treating people well, and putting them in positions to succeed. He took a different path from everyone else and specifically Mr. Washington, however, when he commented that the superintendent should not always be the person correcting poor teacher behavior, but that other staff members had an obligation to do this also.

The basis of my philosophy is how to treat people and I think that when you can get the best out of people you are doing a good job and if you can put those people in a position where they can excel for your system. One of the reasons it is hard to be family-oriented is because sometimes the superintendent or administrator gets used.... When you aren't looking over people's shoulders is that there are some people with characteristics that if you don't look over their shoulders is that they won't push themselves. We look for people that are self-starters and self-motivated people. It's not just myself that watches them, but everyone else in the system. So they have pressure all around them if they don't

do what they are supposed to do. It's tough to have a family-oriented environment but my job is great and I love going to work.

Summary. In the category of Superintendent Structure and Characteristics, the subjects reported a variety of perspectives. While the subjects' comments at times corresponded with one another, invariably each subject focused on different essential superintendent characteristics from the others. In response to the question about philosophy, the respondents also discussed many different ideas, although there were three topics that were mentioned by more than one subject. These topics were raising expectations, showing enthusiasm and promoting life-long learning, and establishing a good school climate for both faculty and students.

Essential Superintendent Knowledge Bases

One of the primary functions of the interview was to find out what factors had shaped the subjects into the type of superintendent they had become. By doing this, I hoped to discover what influences these superintendents lean on during their decision-making process. Although I got answers ranging from taking your time, thinking about consequences, showing concern, reflecting the goals of the community and having decisions dictated by district policy or school, three primary areas that shaped the decision-making process emerged from the subjects. They were involving your stakeholders, networking with other administrators, reading educational journals.

Involving your stakeholders. Five of the respondents commented on the need to involve stakeholders when solving a difficult problem. Mr. Lincoln discussed informed decision-making and involving all of the stakeholders when discussing this topic.

I like to feel consensus and make decisions on informed decision-making and not in positions of power of any kind of dictatory, a because I said so kind of thing, but rather I like to deal in consensus. That's not always possible, there's times you have to take a position of authority, but that's very rare, and it's something you don't want to do very often in my opinion. You've got a limited (number of) authority type of decisions that can be made over time and if you use that up too quickly, it's hard to get people to follow you and do things. I think as I deal with any situation, I think I use an eclectic approach in that I'm doing things from various pieces of different disciplines as I've done through over the years that kind of lead me to the right direction to go and who are the people involved in this, or how do I go about doing that. I think knowing that people want to be part of making decisions, whether I say that comes from some administrative trend, some classroom teacher training, some counselor training, some just common sense. I talk about informed decision-making and getting all the facts on the table and (then) decide.

Although Mr. Lincoln placed a priority on informed decision-making and involving stakeholders, he did mention using various educational disciplines when summing up the question.

I think that the more information of varied sources as opposed to one discipline or another, then you will be able to apply that to a situation more readily. The

situations don't occur as pure educational or pure community relations or pure classroom environment or pure social in nature. They come with components of all those and the wider range of exposure you've had in the discipline of learning and different disciplines, the more able you are to deal with those in the real world setting.

Dr. Kennedy also discussed the need to involve stakeholders in decisions that will directly affect them.

If you're going to make a decision that affects someone, you should try to include those people at least to get their ideas and input. If I make an administrative decision that involves teachers, I try to get some input from teachers and understand what they would like or what they think they would like or if it matters or if they care.

Mr. Adams discussed involving stakeholders from a slightly different perspective from the others when he commented that the school should reflect the feelings of the community, and that decisions must be made on their behalf.

You've got to listen to the people in the community. And there are things we do at -----, decisions we've made would not probably go over in another community, but it's what this community wants and what they accept, and I think the school should reflect the community.

Mr. Roosevelt continued the trend in discussing this topic, but also mentioned the importance of his administrative team. He believed that successful superintendents build consensus among the stakeholders and the administrative team. He also believed it was

important to not be hasty in the decision-making process, but that good administrators make decisions and move on to other problems.

I think all of us individually have an inherent philosophy that is ours that can be shaped or molded by others. It would seem to me again the most important thing that I think we can do at this level is be a good listener. Don't get in a hurry, be patient and be caring, but at the same time don't be afraid to make a decision and move on because we could dwell forever on decisions we've made. I think it is important that a person in this position be a consensus builder as far as, not that everybody's going to agree, yet at the same time, all play the devil's advocate if you will about a decision before you make it.

Dr. Taft concurred with the other respondents in general when he stated that it was important to involve people and let people know that you care about their concerns. He also concurred with Mr. Roosevelt specifically when he said it was vital to take one's time when solving a difficult problem.

A lot of times when people come in with a question and they need an answer, I am always hesitant to give a yes or no answer right then. People look for that, but I am pretty good at discussing what they have to say and then putting the issue off so I have time to look at it. Whether I put it off on someone else to do a little research on it, or coming out and saying "I need to look at everything, give me a day". People respond really good to that because, if you can show people that you care about what they want and that you need time to look at it, they believe you care about their problem.

Networking with peers. Networking with peers was also a common thread among the subjects as seven of the eight commented on its importance. Mr. Washington believed that superintendents should base their decisions on research and past experiences. He felt that one of the best ways to do this was to rely on superintendents from neighboring schools when making tough decisions.

One of the things that you have to remember at the school is you don't have to recreate the wheel. A lot of tough decisions that you have as a principal or as a superintendent, you pick up the phone, you call two or three schools. What did you guys do on this? Well, we do this and this and this. Why do you do that? Because of this and this and this. In other words, we don't have to recreate the wheel, and that's one neat thing about public education.

Mr. Roosevelt commented on these same topics as he discussed the importance of networking with colleagues or reading journals. He also believed, however, that the most important factor in decision-making is to use past experiences as a guide.

I think it's important to really watch and listen, but it's hard to replace actual experience. When you talk about networking, I think it's invaluable. I need to be able to have it where I can call somebody, or have somebody I can get to share a problem with that may have had some similar experiences. Reading what's current out there, knowing what's going on. Doesn't still solve the problem or fix the problem or still got to take off and apply it in a way that's amenable, and acceptable, and workable and functional with people. Every district has its personality, every building had some personality, every classroom has it's own personality. You must consider all the things that must come together.

In discussing methods to network, Mr. Washington stated that one of the best ways to keep in touch with neighboring superintendents was to attend local superintendent meetings. At these meetings, he was able to ask questions as well as picking up on gut feelings some of the more experienced superintendents had when discussing current problems.

Well, one of the things that have helped us in our budget, you know, talking about planning for this year, things like that, is that we do have a tri-county superintendents meeting. You get 18 superintendents and you'll get some old hands in there and that have done pretty good and how'd you do and what do you think and where is it going and all this kind of stuff. And one thing, and that's extremely helpful in the decision-making process, because you can't just come into this because now you're dealing with nuances and illusions because you don't know what the State Department says is correct or incorrect or whatever. So you're going to have to make decisions based on what you think instead of what you're told, because what you're being told is not what happens. So one of the things that's been very helpful to us in planning this year was listening to other superintendents, what they think, how they felt, what their gut reaction is to the State Department and funding and things like that, and start making adjustments. Mr. Truman continued along this same vein when he discussed the help other superintendents and the administrative organizations can give you.

You see what other schools are doing and how they handle it, how they handled the interview, that's something I need to remember. The guy who left this position... I call him every month as well as other administrators. They have a

CCOSA meeting, it's a state organization for administrators, it has a meeting every Wednesday... and they will inform you about everything that's going on whether it's finance, new laws, OSSAA, whatever is going on and they virtually direct you to the people you need to talk to.

Like the other subjects, Dr. Taft discussed the importance of relying on a network of colleagues. However, he also made an interesting point that none of the other subjects mentioned when he commented that it was important to lean on this network for support during difficult times. He credits the university for helping in this area.

I think that it's good to be able to talk to mentors. I think that's what the university tries to do is help you make a network system, without that I think it would be very difficult to survive. I think most superintendents that I met early on were open to helping me. It's almost like a hidden life of being a superintendent where the other ones always help, because at a certain level, there is no one else to talk to, because you cannot relate to other people's problems. It helped me to see that everyone goes through the same thing and we are the only ones who understand.

Dr. Kennedy also mentioned using his network of peers when solving difficult problems, but he focused his comments on the importance of looking at all the factors and thinking of the consequences that will occur with each decision you make.

You try to look at all the factors that are going to lead you to being able to make a decision and also what consequences are based on this kind of decision you make. You certainly gather all the information you can.... A larger decision sometimes requires us to talk to other people. I spend a lot of time with my peers, other

superintendents. We discuss things and talk about things. So I combine all of that and try to make a good decision, keeping in mind that your goal is to advance your kids and it's not to advance yourself or somebody else's agenda.

Ms. McKinley expressed many of the same ideas as Dr. Kennedy. She felt that you must gather facts, talk to different people and then pray about the decision.

I think first of all, gather all the facts you can. And that means from more than one source. The more people you talk to, the more twists you might get on an idea. Not that any one of them would fit your situation, but you'd be surprised. I like to call around and talk to different people and it's not necessarily superintendents. When it's a situation with a title program, or it's a question about an employee, then I call the people that might be in charge of that area in different schools. This may seem strange to some people, but I'm a Christian, so I always pray about the decision before I make the final decision. And I've done that a lot. You know, sometimes there are decisions that I've made and you'd think, okay, you've gathered all the facts, you've thought about it, you've prayed about it, you've talked to people and you know that this is the way you're supposed to go and I'll be honest with you, there's sometimes when I've made a decision and I wasn't sure that was the best decision. Fortunately, most of the time it's worked out, it has been a workable situation.

While stating the importance of using a network of colleagues as a guide, Mr. Adams also asserted that successful superintendents rely on the people who make up their staff for help in making tough decisions.

I like using your network of colleagues that are out there. Utilizing the strengths that you have within your own system. If you've got people who are good at what they do, listen to them, let them make decisions.... Let them make the decisions and empower them and they'll be freer to give you their opinions on those things later if you give them that trust. And that helps a great deal, because they're closer to the problem than you are...

Dr. Kennedy summed up the subject on problem-solving when he pointed out, however, that it is ultimately the superintendent's job to make the decision and take the heat for it. In effect, the buck stops here.

Really and truly the other thing about this job is sometimes it needs to be one person making a decision. Sometimes the school board doesn't want to do it. And I get paid for it anyway, I get paid for it. It's easy for me to make the recommendation and then if they approve it they're just doing what the superintendent wanted. That's okay, that's part of my job.

Research and reading educational journals. Mr. Adams discussed the importance of reading educational articles and stated that he based many of his decisions on research that he had discovered by reading educational journals.

With me, I read a lot. In preparation for this job, I just devoted that year to reading everything I could find, educational articles, educational journals of all kinds. And as far as quick preparation, that got me up to speed on what was going on nationally, the trends. I think that it saved me a lot of wasted time in my decision-making because I've not gone off on a, got side-tracked.... And you're silly

reinventing the wheel. If you can read and this is what is working, you need to follow what's working, because that's what research is.

Mr. Truman also admitted to reading a great deal of journal articles and educational studies.

I read a lot of these studies. I love them because I get several journals a week. It seems like invariably you can find a good article at least, at least once or twice a month you'll find an article that will hit you and bring things home. Okay, hey, this can increase teacher morale or these can do things for kids or administrative morale. This job requires a lot of reading. I get email from the state everyday and people in these watch committees when you become superintendent for you, they keep you up on the bills. But just keeping up with things around your community is so important. I always make sure I scan that newspaper, read articles, anything that has to do with education or with my community...

Although Dr. Kennedy varied from the first two subjects when he professed not to spend much time reading educational journals, he was a proponent of doing research and finding the facts before making a decision.

I don't spend as much time reading educational periodicals and journals as I should, but I still read some. If I have a particular copy or methodology or idea that I don't know a lot about, I think in going through my school that I learned a little about how to find out about it and how to evaluate some of the research... If we're going to do block scheduling or whatever, I don't want to jump out there and do it until I have researched it to some degree. At least read if it has been

done before and how successful it was and what are the advantages and disadvantages before we try to apply it.

Mr. Washington concurred with the other subjects on the importance of research when he stated that all decisions had to be based on research, although he felt that it should be recent research, and not just what had been done in the past.

You base a decision based on your goals and where you want your school to go.

Your goal, the direction of your school, the philosophies that you buy into.... And all of a sudden, your decision-making process is based on your direction, mission statement.... But the fact is, the mission statement has a lot to do with your philosophy and the decisions you make. You base your decisions on research, what's been done. The decisions that I make are one, based on research and they may be a little bit different from conventional wisdom. Conditional wisdom may be a better word. Because a lot of times conditional wisdom is based on past experience, and that may or may not be the correct thing to do.

Summary. In the category of Essential Superintendent Knowledge Bases, I was looking for input as to what factors influenced superintendents the most during their decision-making process. I also hoped to determine what factors influenced them and helped shape their decision-making processes and skills. Numerous responses were given during the discussion of this topic, but three primary answers emerged from the data: (1) involve stakeholders, (2) network with peers, and (3) research and read educational journals.

Superintendent Feelings of Legitimacy

Part of becoming an expert superintendent is learning to deal with the stress of the position, as well as feeling confidence or self-worth in the job. Bereiter and Scardamalia (1993) contend that experts have the “ability to sustain methodical problem-solving under severe conditions” (p. 58). They also argue that it is easier for people with certain temperaments to learn than others, but it is a trait that must be learned (Bereiter and Scardamalia, 1993). Certain types of personalities may deal with these factors more easily than others, but I believe that every person must deal with the feeling of growing into a position. This section of the interview was conducted in hopes of determining how confident and worthy of the position each subject felt.

Each subject acknowledged that there is stress in the position, but each one claimed to deal with it in varying degrees. Few believed they had reached a comfort level in the position, but most all of the subjects felt like they handled stress and got more comfortable each year. A few interesting thoughts from Mr. Lincoln concerning self-evaluation techniques was also presented in the Another Interesting Idea section.

Dealing with stress. Mr. Roosevelt felt like the key to dealing with stress was to stay positive. By doing this, he did not feel that stress took a great toll on him.

As far as dealing with (stress), I’ll be quite honest with you, I try to keep a pretty positive frame of mind about all of that and I think making sure I’ve put forth the effort to make the best decision and deal with the issues causes me to have less stress. For my biggest stress is when I feel like I let somebody down or I maybe

didn't do a very thorough job in analyzing it in taking care of issues. If I'm all stressed out and walking sideways or whatever because I'm lathered up over something, I'm not really doing anybody any good.

Mr. Adams also felt like he handled stress well, but commented that he believed it was important that you have someone who can tell you if they see the job getting to you.

It's something you have to work at. Yes, I feel like I'm getting there. I think that is an important part of it. I think you need someone working closely with you that can identify and be honest with you... Sometimes you're not aware that you are being a little shorter in your decision-making, being a little quick with your decisions and not thinking them out. And on that sign of stress you are just ready to get them over with. So I think you need someone to work closely with, communicate with, and kind of make that obvious to you. Back off, take a little time to catch your breath and come back. I have that here. I've got an assistant or actually a director of instruction who is very good at letting me know when I'm getting too intense.

Dr. Kennedy professed that there was stress in administration, and although he handles it better than he used to, it is still sometimes impossible to leave it at work. He did point out however, that leaving it at work is not all that important if one has an outlet for it.

I've heard a lot of speakers and people saying walk away from it and go away and leave it but I don't know how you do that. I can't do that. I try not to dwell on it, but my wife's a teacher and we're an educational family... We've always known the same people and the same problems and we discuss them a lot at home and

talk a lot about school problems. To me that's not necessarily bad. It kind of gives me an opportunity to release some of that. I think administration, particularly the superintendency, there is a lot of responsibility that goes with it that you can never get away from. That doesn't mean I don't enjoy life and go have fun. I love to play golf and fish and hunt and do a lot of things that I'm sure when I'm doing them I'm not thinking about school stuff. But it's always there and even the people I play with are usually school people and it's not a taboo subject to talk about school. We talk about it a lot. So handling stress in administration is tough and there are some that can do it and some that can't.

Mr. Truman agreed that it was difficult to leave everything at the office everyday. The stresses were great enough, that many times, they were going to follow you home, but at times, you simply had to push everything aside for the sake of well-being.

You know what, I probably should leave things at the office, but that's almost... you can't do it. This job is not a job that you're just going to leave it at the office everyday, but there have been points where I went home and I'm not thinking about it and I'm not working at it. I think that's just being sane for your own sanity of it. You can't think about it 24 hours a day...

Ms. McKinley, Dr. Taft and Mr. Lincoln also commented on the difficulties of dealing with stress, but each had learned to put a different perspective on it that helped them to handle it better. While she felt like she handled stress relatively well, Ms. McKinley believed it is important not to worry about what everyone else thinks.

I have never had a problem with, I mean I've always handled stress I thought really well until about a year ago when I had little problems... with some things,

but sleepless nights, that when you make a decision, you go home and that ought to be it, but it's not. I don't worry so much about what other people think or what other people say, I got over that long time ago. My thing is if you can go home and you can live with yourself after you make the decision then it's okay. I don't spend a lot of time worrying about what I did or why I did it once I've made the decision.

Dr. Taft shared his perspective on coping with stress when he stated that the most important aspect in dealing with stress was to realize when people are mad, they are not necessarily mad at you, but at the position. He felt that once he was able to understand that point, he began to deal with stress much better and become more comfortable in his position.

I would say that the first two years of being a superintendent, I didn't want to do it anymore, the stress was too much because so many people came in attacking me. I had to learn real quick that they weren't coming after me, they were coming after the person in the chair. That is one thing that has helped me handle the stress. I am at a point where I may be stressed all the time, but I don't realize it, I just go. I believe all the stress is there like it was the first few years, but after a day or so you learn to go back to where you were at. I don't think that the stress will ever change, it will just get worse and you learn to deal with it.

Mr. Lincoln took his turn at how he deals with this problem by giving two methods he uses to help deal with the pressures of the position.

I think I do a decent job of it, but I think it's something to work on, I think that just kind of comes with the job and I think it's something everyone has to work at.

I think, to some degree, this job is a lifestyle kind of thing, and there are times I work at leaving things at work, but to a large degree, I think I carry it around a little bit too much. Some of the simple things is, it's easy to get wrapped up in situations as well as always something to do and there's always more to do than you can do. A couple of simple things that I try to do, always try and get away for a few days. Sometimes you've just got to force yourself, even if you feel like there's too much to do. I always come back with a little bit different perspective when I spend time away. Another thing to remember... is to be involved with the students as much as possible. It really does help me.

Although Mr. Roosevelt had stated earlier that he kept a positive outlook and that he believed he dealt with stress very well, he also commented that he had not handled pressure as well earlier in his career as he did now. He also stated that he had a great role model to emulate in his dad, and that he had learned how to deal with people successfully by watching him.

In my younger years, I thought I was wired a little tighter than I am now.... I don't know that I still have patience, I hope to think that I do. But I would say that my dad, who wasn't a school administrator, but he was in a supervisory position, probably had the greatest impact on me in just dealing with people in general, and I try to emulate him. So I would tend to think that subconsciously and consciously watching him and what a people person he was and how he was always positive. You know, try to treat people right, but at the same time if you need to take charge, you take charge.

Finally, although Mr. Washington didn't discuss the aspect a great deal, he did acknowledge that there was stress in the job. He also commented that superintendents should be passionate, those who are passionate about something you may make mistakes, but the heart is in the right place so things will work out.

You want people with passion. But one of the things that happens when you do have people of passion, they're going to fly off sometimes. But that's ok if they're professional. You look back and you go, well I shouldn't have done that, I apologize and shake their hand and say, you know, you're right and I was wrong. But then you straighten up and you go, ok, how can I make things better or maybe I was wrong and take time to reflect, you take a moment to look back through. Is it a stressful job? Yeah, it is and I don't recommend it for the faint of heart. I do recommend it for people who want make a difference. I do recommend it for people that can keep their ego in check.

Finding a comfort level. While Mr. Truman commented earlier that managing stress was difficult, he did feel that he was beginning to handle stress better than he used to. He did admit, however, that he had not reached a comfort level as a superintendent.

I think coming up through the administrative ranks, assistant dean, dean, assistant principal, principal, and then superintendent, I think you learn to relax.

(However), I don't think I'm comfortable yet because there is just so many aspects of it. I just don't see how you can come in here as a new person and at the end of the year say that you look completely comfortable. I think this position is going to be probably a three or four year position where your high school, your

assistant principal job at the first year you got comfortable. This job is probably going to be at the end of my third year.

Ms. McKinley echoed Mr. Truman's comments when she stated that she handled stress well, but also admitted to often taking concerns home with her and that she did not feel like she had reached a comfort level in this position.

I take a lot of things home with me and I shouldn't. Maybe I don't take as many as I used to, but I think that's my personality. It's not so much, I don't think I'm ever going to be at that point where I can leave everything. As a principal, there was a point where I did reach a comfort level. I don't have that comfort level as a superintendent. I feel more comfortable now obviously than I did on day one, but I don't know that I would ever feel that comfortable.

Dr. Kennedy also professed the difficulty in finding a comfort zone in administration. In addition to this comment, he stated that second-guessing is common, especially when things do not work out as expected.

I think we all second guess ourselves after the fact and say... should I have done it? I think we all have that. Probably did a great deal of self-evaluation, I did.

Usually it comes when I make a bad decision. When it goes wrong, I spend a little more time evaluating what else I could have done. But when I make a good decision and things go smooth you don't really think about it much. Most superintendents have good instincts. I don't think there is a comfort time in administration or anything for that matter. I haven't found it in administration. The longest I've stayed any place was seven years and it wasn't smooth always.

However, in many ways I always felt comfortable and wanted something bigger and better rather than having to wait for something.

When discussing his comfort level in the position, Mr. Adams commented that the job has gotten easier. He also commented on the parts of the job that he had improved at once he began to gain self-confidence in his role. These duties included relying on people, getting better at delegating, and making decisions in many different areas with more confidence.

It is definitely easier now than it was the first year. The first you can't help but be overwhelmed. I am thankful I experienced watching my dad do it and actually my granddaddy was a superintendent.... I've been in a line of them where that's all we talked about since I was a young kid was school issues. My uncles, two uncles that were superintendents, our whole family has been involved with education so every holiday we were talking about school problems and how they dealt with them.... And when I look that is probably the greatest experience I had in preparing me for this. (Because) you've got to be ready to make decisions over a vast number of areas, which means you've got to rely on a lot of people. My first year I relied on lot of people to make the decisions for me. What I'm saying is I'm making more of the decisions now in all these different areas, whereas my first year I was limited. I'd make decisions, but it would only be in a few specific areas. Now I'm making decisions in a lot of areas. I try to delegate as much as possible and let them make their decision and I can be involved.

A final point concerning comfort level that Mr. Adams made was very interesting. He saw reaching a comfort level as a negative, because becoming comfortable is an indication of not striving to improve.

As far as comfort level, I kind of look at that as a negative complacent, and I know it's probably not the way it's intended but I know one thing that complacency and comfort level and keep them separated. I'm not complacent, I'm still learning and I think when I get to a point that I stop learning and I think I know it all, it is time to retire. I still feel there is a lot to learn. It is enjoyable now to have the basis of finances. I've got the support base built, committees in place. I've got things going the way I like to see them go and that is satisfying. But as far as being comfortable with it, I think it is a thing that if you are complacent, you're stagnant.

Another interesting idea. As we discussed job stresses and methods to improve performance, in one of the interviews the conversation turned to the idea of evaluation and self-evaluation. I thought these ideas were interesting and important enough to include, even though most of the other interviews did not take this same path. Here are some ideas Mr. Lincoln shared about how he self-evaluates from watching the employees that he has empowered to do their jobs.

In terms of self-evaluation, I think I probably do that an awful lot. But I try to do it based on growth I'm seeing in those individuals who I've kind of turned loose and said, alright, you're going to be in charge of this, you're going to do this, you're going to do this thing, and that way, the competency they show in dealing

with those things to some degree tells me how much I'm supporting them and giving them the resources they need, and also giving them the freedom to grow themselves, and how well, when I'm not part of the equation, are they still finding a way of doing those things.

Mr. Lincoln also expressed how tough it is to get a true feeling of everyone's ideas because at times, faculty are afraid to speak their true feelings to their boss. He also commented on how important it was to learn to deal with perceptions as well as facts when it comes to a job performance issue. He concluded this statement by commenting on his methods to improve his self-evaluation techniques.

I like to draw information from multiple sources. I think one of the most valuable tools to me is... to get information from other people in terms of the way they're viewing what I'm doing. I think a lot of my role in a lot of ways can be very isolated, in that people walking through my door know I'm the superintendent and know that I'm their boss in most situations, and treat you with kid gloves to some degree. So you can get a distorted view of your effectiveness and what's going on if you just rely on that input, and you can get surprised that everybody wasn't thinking what everybody's been saying. So a couple of ways I try and use, and one is that I try to make people very comfortable in being able to disagree or share opposite views, and I think that occurred best in group settings, where you just sat in back and listened, and that goes back to accepting those poor decisions, or what you see as poor at times... and you have to run with them but maybe you think it's not the best at times, and that allows people to share and in the end I think makes you better. Another simple technique that I use... will be an evaluation

form that goes to the teachers. The teachers will be allowed to evaluate me and the central office. But the most productive... was the open-ended questions that they wrote. Where did you see the central office could serve me better, the superintendent could serve me better, or what are the strengths, and what are the weaknesses. Sometimes you get a feel for the perception. Their perception may be erroneous, but if that's the perception out there, that's what you will be dealing with and if they feel that you're controlling information and don't get it out and manipulating people, whether that's what you're doing or not, that's a perception and you've got to deal with that.

Summary. In the category of Superintendent Feelings of Legitimacy, the most common aspects discussed dealt with dealing with stress and finding a comfort level. All of the subjects acknowledged stress in their position, although they claimed to be able to cope with the stress to varying degrees. They also had varying comments on their ability to reach a comfort zone in the position. The section concluded with a couple of thoughts that were provided by one of the subjects when he began discussing methods of self-evaluation.

Problem-Solving Processes

The final question that I asked each superintendent was basically a capstone question. Its purpose was to hopefully elicit any final ideas about how they deal with problems, who they involve, what kind of process they use when solving problems and

making decisions. I asked them to explain, in detail, how they dealt with the budget shortfall schools recently experienced because of the problems with the economy.

Although the answers varied from taking an aggressive posture, following school protocol, have a positive outlook, and plan for the worst-case scenario, there were a few answers that kept coming out in almost all of the interviews. They were to communicate with staff, employ shared decision-making practices and solve the problem in a manner that has the least impact on the classroom. The final subsection, entitled Other Interesting Ideas, detailed some of the answers mentioned above that did not fit neatly into one of the primary categories.

Communicate with staff. Ms. McKinley said that the most important thing in solving a problem of this nature is to let people know about the problem. Do not keep it a secret. For people to believe there is a legitimate concern, they should be told about the problem beforehand.

I visited with the principals and let them know there is a problem. It's not just tied to the state department, it's not just someone trying to put a scare into us or trying to put us in our place, there is a crisis. Then I visited with my teachers and I let them know the situation and what some of the schools around us were doing. I let them know that if they had any ideas, I was certainly open to suggestions.... But I think one thing, don't keep it a secret. If there's a problem everyone needs to know as soon as you do.

Mr. Adams' comments mirrored some of the statements he made earlier when discussing the importance of involving stakeholders and networking with other

administrators both within and outside the district. He also concurred with Ms. McKinley when he stated that it was imperative to talk to staff and make them aware of the problem.

Communication to me, obviously, is one of the most important things to me. I talked to the staff and I didn't go to any other of the teachers, but, except for the principals. The principals will talk to the teachers and say, what can you give up? (From that), I came up with a general list, here's what could be cut, then I shared that with the board and said it compared , when it comes to this, that I might come to you and you're going to have to help me prepare what you would want to cut. And that's how we did it. We went so far as to actually have an accountant, who doubled as treasurer, who was wanting to get together some financial people, account bankers, and such. We didn't get to that point, but the opportunity was there. I was going to compare the plan that we'd come up with to theirs and I think ours was a lot better probably, because we know now what's needed educationally. It was kind of an exciting thing that is there and they're willing to do and I think that s involving the communication aspect.

Dr. Taft agreed with the first two opinions in believing that people needed to be aware of the problem. He also believed, however, that it was important to communicate a positive outlook to the staff, so that perception will be good in the community.

Well, I think perception is everything and although I do believe we have less money, I (also) believe we have more money than we did 3 years ago. I always tell the teachers that we are solid so they will go out and reflect that. We just need to watch what we are spending.

Employ shared decision-making practices. Mr. Roosevelt and Mr. Lincoln both expressed the importance of involving their administrative teams in formulating solutions to difficult problems. While stating that the superintendent must ultimately make the final decision, Mr. Roosevelt added that multiple views must be brought into the decision-making process, because someone may have some insight into a particular program or process that he did not have. Thus, he believed that having an administrative team, and using it, was a necessity.

We have an administrative team here. We called the administrative team (together), that's all the principals, vice-principals, some are directors, and of course myself. We meet once a week and we get pretty open with each other about the picture, because as uninformed as I may be in one area, one of them may be well-informed and can validate or not validate a lot of the good things we can do. I think that's what it really comes down to is you get into tradition and history and, what shall we say, community expectations or parental expectations because for whatever reason there are some sacred cows in every community and every school system, and really, really looking at all of those in order to make the best decision. We've got to kind of weigh all of that so I don't think it can be a one-man decision, although it finally has to be a one-man decision.

Mr. Lincoln seconded this thought when he also stressed the importance of involving the management team and incorporating shared decision-making practices. This allows the superintendent to gather the most facts and make the best possible decision.

Let me get my people together, let's get our management team, let's talk about if we spend this what it affects or what we're going to give up if we do that. It may

not make me quite as responsive, but I think it makes me make decisions in a better light by sharing those decisions with others. I'm turning a lot of the decision over to some other people. I set the parameters and I say how much they spend affects somebody else... Many times it will be 'Alright, it boils down to this' or that and maybe it's one person's priority and another person's priority and maybe I have to help them make a decision or maybe I even have to make the decision. But hopefully, the decision was based on information. We gather the information, we boil it down to which thing is going to be eliminated or not eliminated if I add this expenditure or don't make this expenditure, which thing is it going to be? I make a decision looking at all the factors together and getting many people involved in that to ensure that decision, and the decision becomes more effective if the people who made the decision understand the reasons and those implementing the decision are the most important component in the decision being most effective. It's probably obvious that what I'm doing is trying to involve more people in the decisions, those decisions are shared. It's not necessarily that I'm dodging decisions, it's that I'm taking the individuals' part of their decision and I'm bringing it over to the whole picture. I'm allowing people to make decisions, but I'm also holding them accountable for how it affects the big picture.

Mr. Lincoln concluded by saying he hoped this shared decision-making process allowed the opportunity for the team to generate some original ideas when it comes to solving problems.

Those unique ideas that you hadn't thought of before, that they're a little bit different than what solves the solution. I hope I bring some of those into the process as opposed to, I've got the solution, I'm going to tell you what it is... Many times some of my most different solutions aren't for the decision I'm making, it's for the decision somebody else in the process is making and hey, have you thought of this.

Ms. McKinley touched on the subject, but focused her thoughts on describing how quickly people will bond together to solve a problem when they are asked for input. She also discussed some of the measures her school district implemented during the financial crisis after the teachers and community became involved with solving the problem.

People have bonded together to do what they could. It's not just what I thought I could do. People had ideas; people came over with suggestions or volunteered to do different things so it's been a community effort. We did an early retirement incentive that had never been done before. We hired one teacher who had been retired for several years and came back and wanted to still teach so that saved us some salary. As far as custodians, whenever we put someone out of a job in this town, we're hurting the economy of this town. (However), we've cut down half on supplies. We had a lot of people this year that volunteered to sub, even some of my board members. Teachers are cleaning their own rooms, except for bathrooms. We cleaned our own office here for a length of time just like we asked everyone else to do.

Least impact on the classroom. Mr. Roosevelt, Mr. Adams, and Dr. Taft all made very similar comments on the importance of not letting decisions affect teachers and students. Mr. Roosevelt believed that the most important thing considered when dealing with finances was that decisions had to be made having the least impact on the students.

Well, first of all I think a person needs to have a strong working knowledge and understanding of school finances... because when you have that understanding, then I think you give yourself more options to do everything you can to keep from impacting the classroom. Everything that we've tried to do, we tried to have the least impact on the classroom. If you consider the classroom and safety of our kids, there's priority in the faculty....

Mr. Adams seconded Mr. Roosevelt's opinion that everything must be done to not adversely affect actual classroom teaching.

Our whole focus... is not to touch the classroom. We have not cut anything as far as class supplies, materials, things like that in the classroom.

Dr. Taft also commented that students and teachers are the most important aspects of public schools and that their monetary needs should be taken care of first.

We do need to be careful with what we spend, but we do need to take care of the kids first. We take care of the kids and teachers first and we believe everything takes care of itself.

Mr. Truman echoed these comments, although he believed it was important to have a protocol that each school needed to follow when faced with a challenge of this nature. This protocol needs to be dictated by school board policy and community expectations. He felt this is what led him and his administrators in making their decisions.

Mr. Truman stated that following this protocol would ultimately allow him to make decisions having the least effect on the teachers and classroom as possible.

Like I said before, you're district dictates a lot of this, what your policy is, what their vision is, so that's what you start with. What areas can you cut that are non-curricular? What doesn't have to do with kids graduating high school? What areas in support staff that we could cut that wouldn't affect teachers. Can we save money with our custodial services, can we get outside services? Can we save money on bussing or gas? So you go through all those things before you ever talk about letting a person go. Then we looked at support staff... So we started with the aides, started with the custodial staff and looked at all those positions that we could cut. Then our next process was to not eliminate any program. And this was all philosophy dictated by the district. This is what they wanted, here is the RIF (reduction in force) policy already written. They want these steps taken first on what you do.

Mr. Washington also made a similar point by stating that the best decision needed to be made for the majority of the students, not just the students on the ends of the spectrum.

Many times you base the welfare of one student against the welfare of your student body. Ok, if I have 413 kids here, if I had a decision that's going to affect, how's it going to affect 350 kids? Oftentimes as a principal and as a superintendent, we don't consider that. We consider each end of the spectrum and how it's going to affect them. Well, the fact is, you need to think about your

middle 300 kids, your core group of individuals. If you make a decision for the majority of your students, you're doing what's right for your school.

Other interesting ideas. The following are a few quotes that I thought said a great deal about the subject, but did not fit neatly into one of the three secondary categories under problem-solving processes. They are included here because of their importance in helping us see who the administrator really is.

Mr. Washington made a thought provoking comment dealing with how passive administrators often are. He stated that school superintendents needed to take a more aggressive posture when it comes to dealing with finances.

The first thing we tried to do was identify how much loss that we were going to have. I took an aggressive posture. It's not ok for my school to be broke. It's not ok. I'm out scrapping for every dollar that there is. One of the things that has helped us here... is these people never applied for money. Up until last year we didn't receive gifted and talented. Nobody would apply for it. There was a federal REAP (Rural Education Achievement Program) program which we'll get again this year. Our federal program, we got \$33,000.00 grant which most thought, we were 14th on the list of about 150 and we got \$33,000.00 that we could use for anything we wanted. And it was direct from the federal government, it didn't go through the state. Last year we got a \$50,000.00 computer grant. It's not acceptable and you have to be, this is kind of a great word that superintendents use that are functioning, that are surviving, and that are prospering, is you have to be creative with those things. You have to push these wordings to your advantage.

Mr. Adams believed that when dealing with difficult situations, superintendents had to prepare for the worst case scenario. Preparing for the worst allows one to handle what really happens without much difficulty.

I had a board member I was visiting with who works for Williams. He said, imagine a worst case scenario and set up a plan for it, and break it down from that. So I did. I actually took to the board a list of all the things that we cut out of school if we were given a 20% cut, and then I'd look at a 10% cut, then at a 5% cut, all the way down to 2.5%. And that was probably the best advice I ever got from a board member. If you think about it, probably we were looking at about a 2% cut and we're now up to 8.5% cut. I never dreamed it would get that far. And what he's saying is that, you're right, what would you want me to cut? When you get companies, you already had a plan in force. Maybe not exactly what you'd do, but you've got something. Each time we got cut we said, well, we could be worse.

As Mr. Truman mentioned earlier, he believes that most major problems are solved by following a protocol set up by the district. In many cases, many of these decisions are already made and are dictated by the district policy or school law.

I would say a good 85% of your decisions are based on what this district wants, what that school board tells you that they want, 'Here is our vision. We want this vision carried out.' It pretty well grooms your decision-making processes... You rely on school law.... That dictates a lot of the things, but I think the vision of the school and the direction they want to go is probably your biggest indicator on how you make decisions and what you're wanting to do on an everyday basis.

The final point to be made in this section was very interesting in terms of what type of scope superintendents must use to make correct decisions. When dealing with finances and budget shortfalls, Mr. Lincoln commented that in its finest form, this problem was not that difficult if efficiency was the standard. The problem is that public schools had to balance efficiency with effectiveness.

To some degree, the problem is how to make schools more efficient. I think the problem I have in this position is that efficiency is not that tough of a deal. I herd all these kids into one room and put one person in charge and I'm very efficient. The problem is to keep myself reminded that effectiveness is really what I'm about. Efficiency is something that the situation is, out of necessity, creating a higher emphasis than perhaps I would like it to be. So I think I have to keep going back to what's the main thing , and the main thing is education and helping students and helping society as a whole, because of the role that I fill. So I work awhile on efficiency and I come back and say, how does that stack up for effectiveness? How does that stack up for our purpose?

Summary. In the Decision-Making Processes category, subjects were asked to explain their process in dealing with the current school funding crisis in as much detail as possible. Although a question of this type allowed many various responses, three answers came to the forefront. They were communicating with staff, employ shared decision-making practices, and solve the problem in a manner promoting the least negative impact on the classroom.

A section detailing other interesting ideas was also included. This section contained four quotes that I deemed were too important to the study to omit, but did not neatly fit into any of the three primary areas of this section.

Chapter Summary

McCracken's (1988) four step method of inquiry was used when interviewing the subjects. This process was discussed in the chapter and an explanation was given as to how each step was used in the interview process.

Eight superintendents from various sized districts were asked to be a part of this study. Information on the subject's professional background, highest degree held, and size of school district was given.

Lastly, the data from the interviews was broken down and presented in four major categories: 1) Superintendent Structure and Characteristics, 2) Essential Superintendent Knowledge Bases, 3) Superintendent Feelings of Legitimacy, and 4) Problem-Solving Processes.

CHAPTER IV

Analysis of the Data

In the analysis of the data that was presented in Chapter III, the subjects were compared to the Baker/Bottoms “Characteristics of Expertise” Scale. Data was reviewed from each subject, and the subject was then assigned into one of three categories (novice, post-novice, or expert) in each category of hidden expert knowledge as defined by Bereiter and Scardamalia.

Informal Knowledge Level

The first type of hidden expert knowledge according to Bereiter and Scardamalia (1993) is informal knowledge. Informal knowledge is defined on the Baker/Bottoms “Characteristics of Expertise” Scale as “the sum of life knowledge composed of life experiences, coursework, etc.” When reviewing the data provided by the participants in this study, I found that elements of informal knowledge emerged as essential factors to success in administration and the superintendency. When placing superintendents on the Baker/Bottoms “Characteristics of Expertise” Scale, I looked for how the subjects used their formal knowledge (graduate courses, educational literature, etc.) and applied it along with life experiences and past job experiences to lead them to better decision-

making practices. Each interview was searched for phrases and insight to better allow the researcher to place the subject on the table.

Novice Level of Informal Knowledge

Superintendents working in the novice level of the informal knowledge spectrum draw a great deal of their working knowledge from their graduate courses, past teaching experiences, and by relying on the informal knowledge of colleagues. Each of the superintendents in this study exhibited these characteristics as well as more advanced characteristics in this category. Due to this, the data established that none of the subjects of this study should be termed as a novice administrator in the informal knowledge category.

Post-Novice Level of Informal Knowledge

Superintendents in the post-novice level of the informal knowledge category show the indicators mentioned in the novice section and expand upon them. They show the ability to use knowledge gained from past experiences, they are able to rely on input from others confidently, and they combine their existing informal knowledge with new knowledge or research to form an even higher level of informal knowledge. Four of the superintendents that I studied had reached this level of informal knowledge.

Dr. Taft. Dr. Taft was the newest superintendent that I interviewed, in terms of educational experience. He had been a superintendent for nine years, but had never held any other administrative position. Although he was the newest superintendent, he has had a great deal of education. While earning both an Educational Specialist degree and Doctorate in Education, this coursework and the required research that accompanies it, gave Dr. Taft a great knowledge base to draw from.

Dr. Taft also seemed to do a good job of relying on his employees. He believed that his job is to hire good people, people who are experts in their field, and then to step back and let them be successful. By doing this, he believed that he was creating a family oriented school. In addition, Dr. Taft stressed the value of networking with other administrators. He talked about how early in his career, especially, he leaned on their help. Dr. Taft also commented that the university that he had attended did a good job of fostering this networking.

Although Dr. Taft had a great deal of formal knowledge and was willing to take input from his faculty, his lack of other administrative experience hurt him in expanding his informal knowledge base. Because he is in a small school, however, he takes on the dual role of building principal and superintendent.

These factors placed Dr. Taft on the borderline between post-novice and expert in the informal knowledge category. At this time, Dr. Taft was probably a better fit at the post-novice level, but I expect him to move into the expert level as he continues to gain new experiences.

Mr. Truman. Mr. Truman's interest in studying regional and national educational issues was reflected in the extent of time he spent discussing how important it was for a superintendent to be abreast of current educational issues. To make proper decisions, he believed it was imperative to know what other school districts were doing. He also felt that successful superintendents needed to read to discover the latest innovations as well as being prepared for problems that other districts were having that could possibly arise in your own district.

Mr. Truman also spent time discussing the necessity of keeping in touch with other superintendents, as well as the superintendent who had recently retired in his current district. He felt that it was important to rely on the experiences of these administrators who have done it before. Mr. Truman also contended that many of the decisions that needed to be made came strictly down to district policy. Policy made many decisions; his role was simply to enforce policy.

Viewed together, these factors seemed to place Mr. Truman in the post-novice category in informal knowledge on the table. Although he did have a broad interest in educational issues worthy of expert administrators, he was too new in the job to often be able to apply this knowledge. Thus, he relied too heavily on the school board vision to make his decisions for him. However, due to his eagerness to rely on an ever growing network of administrators and the time he spent studying educational issues, he had the ability to combine his informal knowledge with the new knowledge that he has cultivated from these areas.

Dr. Kennedy. Although Dr. Kennedy believed that it was very important to create a network and to talk to other superintendents, he also felt that it is primarily his job to make the decisions. He discussed the need to bring his other administrators in to get their various opinions on different matters, but also alluded to being pretty autocratic.

Dr. Kennedy claimed not to read a lot of educational literature; however, he did mention that he encouraged his staff to research ideas before they brought them to him. He wanted to know background before he made decisions on the practicality of their idea. A great deal of input from various sources has increased his informal knowledge level. Earning his Doctorate required a great deal of college coursework and time spent reading about educational issues. He also had worked in a variety of school districts, which allowed him the opportunity to see numerous teachers and administrators at work. All of these experiences should have increased his informal knowledge base.

Dr. Kennedy had the knowledge base and the ability to be placed in the expert superintendent category regarding informal knowledge, however, by not using his administrative team to its fullest ability, and being autocratic in nature does not allow him to reach his potential. Due to this, Dr. Kennedy falls into the post-novice level in the informal knowledge category.

Mr. Washington. Mr. Washington has had a great deal of coursework, as he held two Master's degrees, and had finished his coursework for his Doctoral degree. He also had worked in numerous school districts during his career. In fact, at one time during the interview, he stated that he had worked at 28 different sites. These two factors combined to give him a great knowledge base. Because of these various work experiences, he was

able to watch many other educators during the course of his career, and he had drawn knowledge from each of them.

As evidenced by his schooling, Mr. Washington was also a believer in being a lifelong learner. Stating that there is no excuse for poor teachers or poor administrators, he believed that if a person sets out to improve, there are many volumes of work written in any area to help that person improve their skills.

Mr. Washington also commented on the need to rely on other superintendents. He stated more than once that we should not have to recreate the wheel. In his opinion, many tough decisions could be solved by calling other school districts and getting input on how they have gone about solving the same problem.

Mr. Washington felt that decisions must be made for the good of the school rather than the good of a few. Decisions should be made with the school's vision in mind, and they should be made with the idea of doing what is right for the majority of the students.

A concern that I gathered when talking to Mr. Washington, however, was that he does not seem to rely a great deal on input from within his staff. He was willing to talk to other administrators from neighboring districts, but never made mention of including his own staff. This was probably the biggest negative that I found when measuring Mr. Washington's level of informal knowledge. He had the knowledge base, due to coursework, degrees held, and past experiences from various positions he has held. He was also an advocate of research and continued learning. This allowed him the opportunity to expand his informal knowledge with this new knowledge to increase his knowledge base.

However, I believe that he is not using his informal knowledge to its greatest capacity when he does not do a better job relying on his staff for input from their various areas of expertise. Due to this, Mr. Washington falls to the post-novice level in the informal category of hidden expert knowledge.

Expert Level of Informal Knowledge

Superintendents operating at the expert level of the informal knowledge category should be using their informal knowledge in much greater ways than discussed previously. They should have a knowledge base that covers a broad spectrum of educational issues, and their interest in these issues should be growing as they learn more about them. They are also better able to take abstract ideas and successfully apply them to difficult situations. The data from the final four subjects showed that these superintendents were able to do these things and were operating at the expert level in the informal knowledge category.

Mr. Lincoln. Partially due to his unique work experiences before he became an administrator, Mr. Lincoln had a large knowledge base that encompassed the spectrum of administration. He had many valuable experiences dealing with handicapped children, working with districts of various sizes, and working on various educational projects simultaneously.

Mr. Lincoln also had a variety of administrative educational experiences. He was instrumental in the rebuilding process of a school district that was destroyed by a tornado

during his time as superintendent of that school. At one time in his career, he served as a dual superintendent of two school districts that consolidated. These events allowed him to gain valuable experience in successfully dealing with people and controversial issues. Each of these factors greatly enhanced his informal knowledge.

Another indicator of a high informal knowledge base is problem-solving theory. Mr. Lincoln believed that informed decisions should be made and that this is done by including stakeholders, and allowing them to show their expertise. He also believed that the truest test of a leader is knowing how to bring the right people together to make a decision, and encouraging them to think outside of the box as they discuss solutions. This required the leader to trust the stakeholders involved, and to allow them to use their expertise in helping solve the problem.

These past experiences combined with his decision-making philosophy place him in the Expert category on the Baker/Bottoms table. He had a large knowledge base on a variety of educational issues, and due to his willingness to bring in people around him and to gather all the facts; he had the ability to apply this knowledge.

Ms. McKinley. Ms. McKinley had spent more years in education than any of the other subjects. Due to her longevity in education and especially the classroom, she had built up a large knowledge base of past experiences. She had 21 years of past experiences in the classroom to draw from, as well as being a building administrator in every level from elementary to high school.

In addition to these various positions, Ms. McKinley also held a position in which she was a director in a district co-op. Her duties in this position included supervising a

federal grant in four school districts, and also supervising a drug education program for seven different school districts. This experience was invaluable in adding to her knowledge base as she was able to contrast and compare school districts while running a district-wide program. This allowed her insight over a wide range of perspectives rather than just a building level or school district level perspective.

She was also adamant on continuing to learn. Her belief that educators have to be life-long learners, and that education is a lifetime experience show high informal knowledge traits. In accordance with this belief, she believed that when you quit learning, or quit wanting to learn, it was time to retire.

When applying that knowledge in decision-making practices, Ms. McKinley believed that it was important to talk to as many people as possible to get all the facts, and to gather various ideas for the best solution. She realized that an administrator's network should not only include other superintendents, but anyone who may have insight to the best way to solve the problem. When calling neighboring districts, Ms. McKinley was more likely to call the person she believed to have the most expertise in a particular area than she was the superintendent of that district.

Due to this large knowledge base that comprised a wide spectrum of educational issues, as well as her interest in continuing to learn, Ms. McKinley had a large informal knowledge base. Coupled with her acceptance of other educators input, this knowledge could be applied in a variety of ways. These traits showed that she was in the expert level in the informal knowledge category.

Mr. Roosevelt. Mr. Roosevelt had the second longest tenure as an educator with 31 years. However, because six of his years teaching were at the college level, and his first administrative job was in the central office, he only served one year as a teacher in a public school and had no years as a building administrator. So although his tenure allowed him the opportunity to build a large knowledge base of past experiences, many of them were gained through central office administration.

Mr. Roosevelt discussed the importance of relying on those around you when making decisions. He commented on bringing together his administrative team, and allowing them to give input so that an informed decision could be made. To be successful, he believed that a superintendent must be a consensus builder. To do that, the superintendent must listen to all sides, and build consensus between the sides by making the most informed decision possible. He stated that although it often must be a one-man decision, by getting input from involved stakeholders, the superintendent can make the best possible decision.

Mr. Roosevelt also commented on the importance of networking. While stating that he believed it is very important to watch and listen, he also commented that it is hard to replace actual experience.

Although spending only one year as a teacher and no time as a building administrator probably at one time stunted his growth in the informal knowledge category, I believe that he is correct in that it is hard to replace experience. Mr. Roosevelt had a great deal of experience, in five separate districts. Combined with his decision-making philosophy in which he leaned on his administrative team as well as other administrators from throughout the area, Mr. Roosevelt had developed a knowledge base

that encompassed a vast spectrum of educational issues. Bringing others into the process only enhanced this knowledge base, and made it easier to apply. Due to these factors, Mr. Roosevelt was placed in the expert level in the informal knowledge category.

Mr. Adams. Mr. Adams was the second newest superintendent that I visited with, according to years of experience. Although he had just finished his third year as a superintendent, he had also spent seven more years as an administrator in two different districts.

Mr. Adams felt that it was very important to stay abreast of educational issues, and felt that a good way to do this was by reading educational journals. He stated that he spent a year reading everything he could get his hands on before he took his superintendent job. Knowing the importance of staying abreast of current issues, he felt that this would be the quickest way to get up to speed on these issues. He also stressed the importance of having a network of colleagues comprised of both administrators from neighboring districts, as well as educators within your own district. He stated that you are silly to reinvent the wheel. If you can read about something that is working, or talk to someone else, you need to follow what the research says.

Another factor that greatly enhanced Mr. Adams informal knowledge is that he grew up in an educational family. His grandfather and father were both superintendents, as well as one of his brothers. In addition, he had numerous aunts, uncles, and cousins who were also educators in one form or another. Due to this, every meal, family reunion, or general get-together was an opportunity to learn about education philosophies and issues from a very early age.

Although Mr. Adams had not spent as many years in education as some of the other subjects, he had the opportunity to greatly enhance his informal knowledge base by growing up in an educational family. Much of his past experience knowledge may not have truly come from his own experiences, but was learned from watching these family members.

This asset, as well as his willingness to rely on educational literature allowed him to be able to take his knowledge and apply it to numerous situations. When adding in the fact that he was willing to seek information from colleagues both within the district and in other districts, as well as showing a large interest in educational issues, places him at a high level in the informal knowledge category. These factors show that Mr. Adams falls in the expert level on the informal knowledge category.

Summary

Of the eight subjects interviewed for this study, I found that four fell in the post-novice level and four were in the expert level in the informal knowledge category. Each of the subjects rated higher than the novice level in this category.

Every one of these subjects had a good knowledge base of past experiences. Most all of them believed in the importance of networking with colleagues and the need to involve stakeholders in decision-making process.

What set some apart from the others in the informal knowledge category in most cases was simply their volume of experiences. Informal knowledge leans so heavily on

past experiences that having held a variety of positions greatly enhances this hidden expert knowledge trait.

Also some of the subjects seemed to do a better job of staying abreast of current educational issues and involving other staff within their district when solving problems. These are very important aspects in improving an administrator's informal knowledge base.

By and large, however, each of these superintendents was very knowledgeable and had a large informal knowledge base to draw from. I believe that the reason I did not see any administrators fall into the novice level in this category is due to the fact that all the superintendents in this study had been in education long enough to have a great deal of past experiences to draw from. Most superintendents should score high in the category of informal knowledge simply due to having many years of experience in education.

Even the subject who had just completed his first year as a superintendent had eight years of teaching experience and 12 prior years of administrative experience. He was able to build up a large network of experiences to draw from during the twenty years that he had been in education before he took his first superintendent position.

Overall, I felt that each of these subjects possessed a high level of informal knowledge. While not all were operating at the expert level of informal knowledge, each of them had the capability to work into that level.

Impressionistic Knowledge Level

Impressionistic knowledge is defined as knowledge that comes from impressions that have been made upon us by events that we have experienced. It is a type of intuition that we gain from the knowledge of past experiences. These past experiences are related to the moods or feelings associated with them. Experts are able to tap into their feelings that come from past experiences and recall information as they relive events in their mind. The ability to do this is the basis of impressionistic knowledge.

Although impressionistic knowledge is based on feelings from past experiences, this knowledge base can be greatly enhanced by using existing literature and learning from other's past experiences. When a superintendent is able to put all of these factors together, the impressionistic knowledge base that he or she has to draw from is greatly increased.

Novice Level of Impressionistic Knowledge

Superintendents operating in the novice level of the impressionistic knowledge category often have the knowledge to deal with a problem, but are unable to synthesize it into a useful problem-solving strategy. Instead they tend to rely on a set technique or guide in their problem-solving issues.

These superintendents rely greatly on input from others, and usually cannot see how relevant literature applies to their particular problem, thus seeing it as inadequate. Of

the eight administrators that I interviewed, the data showed that one was working at the novice level in the impressionistic knowledge category.

Mr. Truman. Mr. Truman discussed how his feelings about many educational issues had changed over the years, especially as he had changed positions. For instance, he looked at teaching practices much differently now than he did when he was in the classroom. In that view, he felt that he could be a much more successful teacher now than he was when he was in the classroom.

He also commented that holding many different positions on the way up through the ranks was very beneficial to him as far as gaining on the job experience. He especially thought the time that he had spent as an assistant principal while taking care of discipline issues was very important in learning how to deal with people.

Although Mr. Truman had a wealth of past experiences in other positions, due to his newness in the position of superintendent, it was obvious that he relied on many people and policies to help him make decisions. He commented that he had very good people around him, and that he relied heavily on these people, especially in areas that he did not feel secure in, such as finance. Mr. Truman also commented about relying on school board policy and community expectations to dictate many decisions.

Mr. Truman was obviously growing in his position, and fell on the border of novice and post-novice. Although he did try to use existing literature to help with his problem-solving practices, at this time he was too reliant on dictated guides to develop creative solutions. Due to this, Mr. Truman was in the novice level in the impressionistic category.

Post-Novice Level of Impressionistic Knowledge

Superintendents functioning at the post-novice level in the impressionistic knowledge category are able to take the knowledge from experience that novice administrators have but have a better understanding of how to synthesize it into actual problem-solving techniques than these novice administrators. These superintendents are also better prepared to see the big picture and any possible ramifications that may occur due to the decision-making process.

Superintendents working at this level use existing literature to come up with more innovative solutions and to reinforce their solutions to problems. However, while they are more innovative in their problem-solving than novice superintendents, they often still rely on guides or protocol to solve many difficult problems. Of the eight superintendents that I studied, I found that two fell in the post-novice level of the impressionistic knowledge category of the Baker/Bottoms “Characteristics of Expertise” Scale.

Dr. Kennedy. Dr. Kennedy had spent two-thirds of his professional life as an administrator and half of that as a superintendent. Due to this, he had a great basis of past experiences to draw from. In addition to this time, as he worked his way through the ranks of administration, he felt that he had many mentors who were willing to help people learn. Because of this networking, he felt that he was able to gain many good experiences before he had to take on a role of superintendent himself.

Dr. Kennedy also felt that to make good decisions, all of the facts had to be gathered and consequences, both positive and negative, needed to be considered before

making a final decision. Although he believed in bringing in stake-holders when needed, Dr. Kennedy professed to often being autocratic in decision-making practices. He felt that at times it was his job to be the bad guy, and that he was all right with that.

Although being a strong and confident leader is important, it is also important to not allow this trait to cause the leader to overlook people who can help. Dr. Kennedy had great experiences and seemed to be comfortable in his role, but may often miss out of creative problem-solving techniques due to his preference to make decisions alone. While Dr. Kennedy had many admirable traits, this caused him to fall to the post-novice level in the impressionistic category.

Mr. Washington. Mr. Washington was a fairly new superintendent, but had many years in education to draw past experiences from. Mr. Washington also, however, had worked to improve his knowledge base by staying up on recent educational issues and taking a proactive role in furthering his education and continuing to learn.

Mr. Washington also showed great creativity in some of the solutions to problems we discussed during the interview. As school districts all over the state are trying to work with the budget shortfall, Mr. Washington was able to bring in hundreds of thousands of dollars in new money by applying for federal programs and federal grants. He also stated that administrators must learn to be creative in these times, and use wordings to your advantage. He explained this statement by saying that many state guidelines and laws were written arbitrarily, and that creative superintendents must learn to use these arbitrary laws to the advantage of the school district.

Mr. Washington contended that it was vital to ask opinions of other superintendents and mentors in the area who might have seen these specific problems before. I did not, however, find any real evidence that he worked to pool input from people within his district or community.

Although Mr. Washington has been very creative in working with the budget issue and other problem areas, he needs to improve his ability to draw insights from various places together to make more informed decisions. While Mr. Washington will probably soon move into the expert level in the impressionistic category, at this time he resides in the post-novice level.

Expert Level of Impressionistic Knowledge

Superintendents operating at this level in the impressionistic knowledge category are able to use all available input in formulating creative solutions to complex problems. They use their past experiences as well as existing literature and research to combine information to formulate the most creative solution to a problem.

These superintendents see the importance of drawing together insight from various stakeholders and from other people with expertise in the area of the problem. They also realize that the school is the heart of most communities. They see the importance of including community members and community values into their decision-making processes. Superintendents at this level are able to draw all of these insights and factors together to solve problems and formulate solutions that cause the least amount of

negative ramifications for their districts. Of the eight superintendents involved in this study, five were operating at the expert level of the impressionistic knowledge category.

Dr. Taft. Dr. Taft realized that tough decisions could not be made on the spur of the moment and required some research before making the decision. He stated that he relied on the people around him to give input and to help in the decision-making process.

Dr. Taft spoke extensively about running a family oriented school. To do this, he believed that a superintendent needed to hire good people, and then empower them to do their job. When going through the decision-making process, Dr. Taft believed that stakeholders needed to be allowed to provide input, and that it was important to rely on each member of the educational team's expertise.

Dr. Taft also realized the importance of good community relations. Community values and principles must be considered before making decisions. He believed this was especially true in a small community such as the one in which he worked. Due to this, he tried to include community members on committees and looked to get outside input from the community as often as possible.

Dr. Taft also spoke of the need to stay abreast of educational issues. He practiced what he preached by continuing his education until he earned his Doctorate, and he also claimed that he tried to stay current by reading educational journals.

Combining his experiences and education with his philosophy of pooling his resources and allowing his staff and community to provide input allowed Dr. Taft to draw these various insights together during problem-solving and to develop creative solutions

to problems. This combination of experience and use of resources puts Dr. Taft in the expert level in the impressionistic category.

Mr. Lincoln. Mr. Lincoln had a wealth and variety of experiences to draw from, due to the variety of positions that he had held. His time spent with handicapped children and in counseling situations greatly increased his knowledge base in those areas.

Mr. Lincoln also showed a sense of creativity in problem-solving. He expressed the desire to pull stake-holders together to make informed decisions. To get true creativity flowing, he realized that he had to empower his stake-holders to share their thoughts and to provide input in the process. To accomplish this, according to Mr. Lincoln, he often had to pull himself out of the process and sit in the background as these empowered stake-holders provided input. He cautioned, however, that a good superintendent had to be able to determine the correct time to step back into the process. Once he stepped back into the process, with the input from the stake-holders combined with his experiences, he was able to use all of the available data to make the correct decision. This process allowed him to think “outside of the box” and come up with creative solutions for difficult problems.

This philosophy, coupled with his wide range of work-related experiences greatly enhanced his pool of impressionistic knowledge. Due to this Mr. Lincoln falls in the expert level in the impressionistic category.

Ms. McKinley. Ms. McKinley was the longest career educator that I interviewed. She had taught in numerous buildings, and had held a principal position in elementary,

middle school, and high school buildings. She also had held a district-wide position in which she was in charge of federal programs for numerous school districts. These various positions had given her a wealth of past experience to draw from. In addition to these many years of experience in a variety of positions, Ms. McKinley also professed to be a lifelong learner. Although I did not get the impression that much of this new knowledge was being gained through existing literature, I believe she was still learning a great deal through everyday experience.

Ms. McKinley believed that to make practical decisions, a superintendent must first gather all of the facts. She believed in gathering information from people who were experts in that particular area both within her district and outside of her district.

Ms. McKinley discussed some creative techniques to solve the problem presented to her in grand tour question five. By combining some positions of people who resigned, hiring retired teachers to teach part-time, and introducing a retirement incentive, she was able to save money in creative ways.

Ms. McKinley also recognized that the well-being of the town must be considered in her decision-making process. She stated that if they reduced the number of custodians, this may save the school money, but anytime someone was put out of a job in their town, it hurt the economy of the town. So in a case such as that, laying off custodians would be doing more damage than good.

This wealth of past experiences coupled with Ms. McKinley's ability to come up with creative solutions to problems while also being able to see broader issues such as the good of the community caused Ms. McKinley to be placed in the expert level of the impressionistic category.

Mr. Roosevelt. Mr. Roosevelt took an unlikely road to the superintendency, having never spent any time as a building level administrator. However, he spent many years at central office positions, which gave him an opportunity to closely watch other superintendents in their work. In addition to this opportunity to gain experience, Mr. Roosevelt was the longest tenured superintendent in this study with 15 years.

Although Mr. Roosevelt felt that knowledge could be gained in classes and coursework, he stated that it is hard to replace actual experience. Years on the job and networking with other people who have spent time on the job, in his view, were the best methods of gaining additional knowledge.

In the area of decision-making, Mr. Roosevelt wanted to be a consensus builder. He believed that it was important to pull his administrative team together and talk and gather input from a variety of people before solving a difficult problem. Even though he felt that it was his job to make the final decision, he realized that he needed input for his decision to be an informed one.

He also understood that the wishes of the community had to be considered when making major decisions. Every community has sacred cows that had to be looked at before making decisions. Tradition, history and community expectations or parental expectations were important factors to consider in the problem-solving process.

Mr. Roosevelt's years of experience combined with his understanding of the necessity to bring in stake-holders who had more knowledge of a situation or a community value during problem-solving help to place him high up the scale in impressionistic knowledge. These factors give him the ability to pull insights together

and to come up with creative solutions. Due to this, Mr. Roosevelt is placed in the expert level in the impressionistic category.

Mr. Adams. Mr. Adams was the only subject that I interviewed who looked at good problem-solving skills as being one of the main characteristics of successful administrators. He understood that the farther a person goes in administration, the more complex the problems are, and the more complex the solutions must be. He believed that it was imperative for administrators to be good decision-makers and that they must be willing to step up and make the decision.

Although he stated a willingness to make the tough decision, Mr. Adams also realized the importance of pulling together a support base and the proper committees to improve the problem-solving process. Many people must be relied on for their input, as well as the importance of delegating authority. Mr. Adams commented on utilizing the strengths that you have within the system. If one has good people, who are competent in what they do, empower them to make decisions and provide the input needed to help make better overall decisions.

Mr. Adams also believed the need to increase and expand his knowledge base through reading educational literature. He stated that if someone came up with a good idea, and research supported it, that idea could be used in one's own situation as well.

Finally, Mr. Adams realized the importance of listening to the goals of the community. He commented that the school should reflect the community. To further this cause, Mr. Adams put together committees of community members to provide input and to share their feelings on issues. He was also secure enough of his place in the system, to

be willing to listen to members of the financial community during the budget crisis. By doing this, he was able to make informed decisions while using all of the valuable resources at his disposal.

Due to his experiences and the innovative ways that he used the resources around him, Mr. Adams is able to move into the expert level in the impressionistic category of the Baker-Bottoms “Characteristics of Expertise” Scale.

Summary

Of the eight subjects interviewed for this study, five scored in the expert level, two in the post-novice level, and one scored at the novice level in the impressionistic knowledge category of the Baker/Bottoms “Characteristics of Expertise” Scale.

As discussed earlier, each of the subjects had a great pool of past experiences and a large informal knowledge base to draw from. The key to impressionistic knowledge, however, is how they use this knowledge base to their advantage when faced with tough decisions.

The subjects that were viewed as experts in this category tended to combine their knowledge with support from their staff and other administrators. These networking skills allowed the subject to bring various insights together when solving difficult problems. This increased their probability of coming up with creative decisions for these difficult problems.

These experts also realized the importance of including the community in important decisions. They realized that community values and perceptions are very

important when making educational decisions. Although the communities varied in size, each of them could be considered semi-rural as no administrators from large cities were used as subjects. In small communities, the school is the heart of the community. Expert superintendents realize this, and take into account the feelings and values of the community in their decision-making process.

Overall, each of these superintendents had a relatively high level of impressionistic knowledge; some had just come to a better realization of how to use it, thus increasing their capacity to make successful decisions.

Self-Regulating Knowledge

The last type of hidden expert knowledge is known as self-regulating knowledge. Self-regulating knowledge has been defined as “One’s knowledge of performance requirements and the management of that knowledge” on the Baker/Bottoms “Characteristics of Expertise” scale.

There is a large difference in having the knowledge to solve problems and make difficult decisions, and being able to do these duties when the pressure is intense. Experts not only possess the knowledge, but are able to perform these tasks during high-pressure situations.

Expert superintendents are in control of their professional life, and handle their duties with little or no visible stress. They are able to delegate authority confidently, and they are content with their place in their professional life.

The ability to handle stress, lead with confidence, become comfortable in their position, and delegate authority were some of the main components that were looked for when studying the interview transcriptions. Subjects were placed in the appropriate place on the Baker/Bottoms “Characteristics of Expertise” Scale by after analyzing the data for relevant information in these topic areas.

Novice Level of Self-Regulating Knowledge

Superintendents operating at the novice level in this category often have difficulty managing stress. They are not able to leave problems at work, and have a difficult time dealing with the stress of the job. These administrators have difficulty juggling their time and the many various demands of the job.

Novice superintendents also often have legitimacy issues. They may wonder if they are capable of the position. While they are beginning to learn constructive self-critique techniques, many still do not know how to positively self-evaluate. They are still trying to establish a network of administrators and mentors. Each of the superintendents I interviewed during this study had greater self-control in these areas than I described for a novice administrator. Due to this, the data established that none of the superintendents were at the novice level in the self-regulating category.

Post-Novice Level of Self-Regulating Knowledge

Superintendents at the post-novice level are better able to handle the stress of the position than novice administrators. They accept problem-solving challenges and are beginning to learn to trust their coworkers and delegate responsibility.

These superintendents feel more control in their professional life. Their professional networks are growing, and they are becoming more comfortable in their position. This allows their focus on the position to increase. In this study, I found that two of the eight superintendents that I interviewed were at this level of self-regulating knowledge.

Mr. Truman. Mr. Truman felt like he handled the stress of being a superintendent pretty well. Although it was hard for him to leave everything at the office everyday, he felt that the years he had spent in various administrative positions taught him to deal with the stress of the position. Even though he believed he handled stress adequately, he did not believe that he had reached a comfort level in this position like he had in other positions that he had held. He felt like it would take him three or four years to get comfortable, whereas in some of his other positions, he had felt relatively secure after the first year.

Mr. Truman also discussed how difficult it was to grasp all of the aspects of the position. He relied on other people in his organization to provide expertise in some of the areas that he did not feel comfortable. He also relied heavily on district policy to guide him in his decision making.

Although Mr. Truman showed some legitimacy anxiety, he had been in administration long enough to gain a certain degree of comfort, even in this new position. He also had developed a wide professional network and had learned through his other positions how to effectively deal with stress. Due to these characteristics, Mr. Truman falls in the post-novice level of the self-regulating category on the Baker/Bottoms “Characteristics of Expertise” Scale.

Ms. McKinley. Ms. McKinley held many positions during her career, both as a teacher and an administrator. She always felt that she handled stress relatively well, but she took problems home with her more often in this position than in the past. While she believed that she dealt with the stress adequately, she did not feel that she had gained a true comfort level in the superintendent position.

However, she did state that she tried not to worry about other people’s opinions of her. She had learned to listen to them, but to take them with a grain of salt. Her philosophy was that if one can go home and can live with oneself after making a difficult decision, then everything is probably alright.

Ms. McKinley did not discuss her professional network a great deal, but did acknowledge that she would call other schools to talk to people in positions of expertise about the problem she was working on. She also discussed how she bounced problems off of her mentor. Knowing that he would be truthful, this helped her work out some of her more difficult problems.

Ms. McKinley was obviously a successful administrator, and probably would rank in the expert category of a principal position. However, she was still learning to feel

comfortable in this position and to handle the additional stress that comes with the position. Due to this legitimacy anxiety, Mrs. McKinley ranked in the post-novice level in the self-regulating category of this scale.

Expert Level of Self-Regulating Knowledge

Superintendents who feel in control and confident in their professional life are operating at the expert level in the self-regulating knowledge category. These administrators deal with their daily issues with little or no stress. They are comfortable with their abilities and the abilities of those around them. This allows these administrators to delegate responsibility confidently.

These superintendents lead their school districts with confidence and take on a new role in their professional network. While they realize the importance of listening to other administrators, they find themselves more and more often asked for advice from younger administrators. Many are mentors to other administrators, and help these younger administrators learn to lead effectively. Six of the eight administrators that I interviewed during this study were operating at the expert level in this category.

Dr. Taft. Dr. Taft was very comfortable in delegating authority. His philosophy was that he wanted to run a “family-oriented” school. To do this, he believed that it was important to hire good people and then step back and allow them to do their job. Although there is obviously a period of trust-building that must occur with new employees, his goal was to get each of his staff to this level.

Dr. Taft also claimed to manage stress well. He admitted that early in his career, dealing with the stress was very difficult. Acknowledging that the stress was still there, he believed that veteran administrators just learn to deal with it and not notice it so much.

He also stated that once he realized that angry parents were not necessarily mad at him, that they were angry at the position, or the policy, he was better able to put confrontations behind him and deal with altercations better.

Dr. Taft had been in the same position for nine years, and had grown comfortable in it. He seemed to lead his school with confidence and feel comfortable in his role. In addition to this, he had spent a great deal of time enhancing his formal knowledge by earning his doctorate, which only increased his confidence in his position. Due to these factors, Dr. Taft was placed on the expert level in the self-regulating category of the scale.

Mr. Lincoln. Mr. Lincoln felt that he carried stress around a bit too much, but had found ways to deal with it. He believed that it was important to realize that the school will run without you, and from time to time, you have to get away. Staying involved with students helped him stay grounded and was a good method of dissipating stress for him.

Mr. Lincoln was very comfortable in delegating authority to his administrative team. He believed that staff must be empowered to make decisions to allow the best decisions to come to the forefront. His philosophy on shared decision-making practices showed a great deal of confidence in his ability to direct the discussions and confidence in the people around him.

Mr. Lincoln also showed great confidence and legitimacy in his position by his evaluation methods. He allowed his staff to evaluate him and also set up teacher advisory committees to allow teachers to share their concerns with him face to face.

Mr. Lincoln's effectiveness in dealing with stress, ability to help others become better leaders, ability to delegate, and feelings of legitimacy in his position all point towards him being placed high in the self-regulating category. These characteristics put him in the expert level in this category.

Dr. Kennedy. Dr. Kennedy stated that second-guessing oneself when a decision goes bad is common. He also felt that finding a comfort level in this position, or any other for that matter, was difficult to do. Although he made these statements, he did however, continue to move up into larger positions every few years. He was in his third superintendent position at the time of the study, each one at a larger school than the last.

Claiming that he did let stress bother him, he believed that he diffused it well by discussing aspects of the position with his wife. She was also an educator and was often able to give him some unique insight to the problem.

Dr. Kennedy felt that developing a professional network is very important in being successful in this position. Administrators should talk to each other and gain from each others experiences and expertise.

Although Dr. Kennedy stated some concerns about dealing with stress and finding a comfort level, he does however lead with confidence. This was apparent after visiting with him for a while. He believed that even though he may bring people together to gain

input, he should make the ultimate decision. The buck stops with him. He even claimed at times to be more autocratic than democratic.

Dr. Kennedy seemed content with his professional life. He was very confident, and realized that he was the person in charge whether the decisions that have been made are good or bad. He also seemed to effectively deal with stress by using his family and his network as sounding boards. These characteristics place Dr. Kennedy at the expert level in the self-regulating category.

Mr. Washington. If I learned anything from Mr. Washington during the time that I spent with him, it is that he felt comfortable in his position. He felt that he had been training for a superintendency all of his life, and confidence flowed from him. He admitted to making mistakes, but believed that his philosophy was sound, was not afraid to research a subject, and was not afraid to make a decision or state an opinion.

Mr. Washington took positions during his career to help himself become more rounded. Because he spent most of his career in the high school and middle school, before taking a superintendent position, he accepted an elementary principal position. He also had worked extensively on his administrative education, holding two Master's degrees and finishing the coursework on his Doctorate.

He professed a strong belief in the importance of professional networks. He commented that it was important to talk to other administrators to find out how they handled problems, and to use that input to guide your decision-making process.

Although I did not find a great deal of evidence that Mr. Washington delegated much authority to his administrative team, he did show examples of leading with

confidence and exhibited little legitimacy anxiety. Combining this with how he had developed his professional network and his willingness to do research on a subject placed him on the expert level of the self-regulating category.

Mr. Roosevelt. Mr. Roosevelt believed that he deals with stress very well. He claimed to be an optimist, and believed that he put forth the required effort to make a good decision, so once the decision was made, did not spend a lot of time worrying about it. This showed that he was very comfortable in his position and was able to confidently lead his school district.

Mr. Roosevelt also displayed a willingness to share responsibility and to gather input from his administrative team. Although he realized that he must ultimately make the final decision on difficult problems, he also believed that every person on staff should be allowed to do their job, and that he should use their expertise to his advantage.

He had spent enough years as a central office administrator that he felt confident about the various duties that the office calls for. During the course of his many years experience, he had personally overseen all areas that fall under the heading of superintendent, so he did not express great concerns about his ability to handle any of them.

Due to his long experience as an administrator and a superintendent, as well as his optimistic outlook and high level of self-confidence, Mr. Roosevelt definitely fell in the expert level in the self-regulating category of the table.

Mr. Adams. Mr. Adams felt like he handled stress effectively, and he also leaned on another central office administrator to tell him if he was getting too tight, or seeing any signs of stress. He also commented that the position was getting much easier. His three previous years of superintendent experience were enabling him to feel much more comfortable in making decisions in various areas, as well as helping him become better at relying on other people and delegating responsibility to other faculty and staff. He stated the he was comfortable in making decisions in some areas that he did not feel that he knew much about a couple of years ago.

Mr. Adams also showed a great deal of self-confidence by setting up support groups comprised of staff and community members. These groups provided input that helped him to make better decisions. He believed that they can be very informative, as long as they realized that he was in charge and that they understood their role in the process.

Although Mr. Adams stated that he had not reached a true comfort level in the position, he claimed that to become comfortable was to become complacent. He felt that he was still learning and never wanted to become complacent in this or any other position.

While Mr. Adams had only been a superintendent for three years, he had virtually trained for this position his entire life, as his father, grandfather, and various other relatives were also school superintendents. This background allowed him to get ahead of the curve in each of the hidden expert knowledge categories.

His high self-confidence, expanding ability to delegate, ability to lead and to help others learn to lead, and low legitimacy anxiety combined to place him in the expert level in the self-regulating category of the Baker/Bottoms “Characteristics of Expertise” Scale.

Summary

Of the eight subjects that I studied for the project, I found that six fell in the expert level, two in the post-novice level, and none were in the novice level of the self-regulating category.

Most all of these subjects had learned to effectively cope with stress during their career. Many also had learned to delegate authority and to rely on the people around them to help in the decision making.

The two subjects that fell to the post-novice category were two of the three newest superintendents in terms of years of superintendent experience. It would be a good guess that in time, both of these subjects would also move up a level to the expert level of the category.

I felt that the primary reason that none of the subjects fell in the novice category of this scale was due to the fact that all of them had many years experience in the educational system. Plus, each of the subjects had been an administrator for many years, with the person with the shortest term having held an administrative position for nine years. So even though some of these superintendents were relatively new in their positions, each of them had many years of valuable leadership experience to draw from.

Overall, I felt that each of these subjects had a great deal of self-regulating knowledge, some had just moved to the highest level, while two were still growing in their position. Table 4 summarizes the subjects' expertise levels in each of the three hidden knowledge categories.

Table 4

Subject Expertise Levels

	Informal Knowledge	Impressionistic Knowledge	Self-Regulating Knowledge
Novice Administrator		Truman	
Post-Novice Administrator	Taft Truman Kennedy Washington	Kennedy Washington	Truman McKinley
Expert Administrator	Lincoln McKinley Roosevelt Adams	Taft Lincoln McKinley Roosevelt Adams	Taft Lincoln Kennedy Washington Roosevelt Adams

Chapter Summary

Data from each of the eight subjects was analyzed to determine what level they fell into in each individual category of the "Characteristics of Expertise" Scale. Data was reviewed to determine each subject's level of informal knowledge, impressionistic knowledge, and self-regulating knowledge.

I found that in the informal knowledge category, four fell in the expert level, four in the post-novice level, and none fell in the novice level. In the impressionistic category, five fell in the expert level, two fell in the post-novice level, and one fell in the novice

level. Finally, in the self-regulating category, I found that six of the subjects fell in the expert level and two fell in the post-novice level, with none of the respondents falling to the novice level in this category.

CHAPTER V

Summary, Conclusions, Recommendations, Implications and Commentary

This chapter includes a summary, conclusions, recommendations and implications and a commentary derived from the data collected from this study. The data was collected in this long interview study on the topic of expertise in administration.

Summary

The purpose of this study encompassed four related aspects:

1. through interview and analysis, examine expertise through looking at the differences in the problem-solving abilities of a wide range of superintendents, both new and long tenured;
2. analyze the problem-solving strategies of these same superintendents through the lens of a topology of expertise. Then, assign the skills to one of three categories (novice, post-novice, or expert) by building on Bereiter and Scardamalia's use of informal, impressionistic, and self-regulating knowledge;
3. develop a professional expertise scale to aid in rating these superintendents' degrees of informal, impressionistic, and self-regulating knowledge; and

4. analyze the data to determine other findings that present themselves during the course of the study.

These purposes were accomplished by:

1. collection of data from eight rural or suburban superintendents, seven males and one female, using long interviews;
2. data presentation into (a) demographics, (b) superintendent structure and characteristics, (c) essential superintendent knowledge bases, (d) superintendent feelings of legitimacy, and (e) problem-solving processes; and
3. data analysis: comparing the superintendents to the Baker/Bottoms “Characteristics of Expertise” Scale in the views of informal, impressionistic, and self-regulating knowledge.

Data Needs and Sources

Eight superintendents from rural or suburban school districts were used as data sources. Seven males and one female, with differing amounts of educational, administrative and superintendent experience were interviewed. Each of the participants was enthusiastic to participate in the study. From each I gathered data on administrator characteristics and philosophies, essential knowledge bases, feelings of legitimacy, and finally, their problem-solving processes.

Data Collection

McCracken's (1988) long interview method was used to collect the data. The interviews were 45 to 90 minutes long, and centered around five grand tour questions. Probing techniques were used to retrieve additional data. The interviews took place at a site of the administrator's choice to allow the subject to feel comfortable with their surroundings and as non-threatened as possible. Seven of the eight interviews took place in the administrator's office, while the eighth superintendent chose to meet me at a neutral site. The questions focused on administrator characteristics, philosophies, essential knowledge bases, feelings of legitimacy, and the problem-solving processes of public school superintendents.

The interview began with demographic questions pertaining to gender, years of experience as a classroom teacher, degrees held, years of experience in administration, administrative positions held, other leadership positions held, and years in current position. A follow-up questionnaire was mailed to the subjects after the interview to verify this information.

Data Presentation

Prior to the collection of data, a literature review was conducted. After the data collection, the interviews were transcribed, the data was examined, and it resulted in the development of the following data categories: demographics, administrative structure and

characteristics, essential administrator knowledge bases, administrator feelings of legitimacy, and problem-solving processes.

Demographics. The demographic data showed a wide variation of experience levels among the subjects. I chose subjects from rural or suburban school districts within 150 miles of my home. After beginning the process, it became obvious that the superintendent position was more widely held by men than women, as evidenced by seven male subjects and one female subject.

Superintendent structure and characteristics. This section dealt with the subjects' views of characteristics, philosophies, and fundamental beliefs about the superintendency, or administration in general. In the area of administrator characteristics, the superintendents offered their opinions on characteristics of successful administrators. They talked about good people skills, communication skills, organizational skills, showing empathy to others when making decisions, being a good listener, treat people the same, setting goals and having a vision, caring about kids, and being a problem-solver. These perspectives on vision fit with those of Saunders (1984).

In the area of Philosophies and Values, the superintendents expressed the fundamental beliefs they attempted to guide their school with. They discussed raising expectations, the importance of life-long learning, and the importance of school climate for both students and faculty. The idea of being a life-long learner supported earlier research by Dimperio (1993) and Sadowski (1993).

Essential superintendent knowledge bases. This area coincided strongly with the administrators' levels of informal and impressionistic knowledge. The superintendents discussed many methods of improving these knowledge bases, but there seemed to be three primary areas. The first area was involving your stakeholders in the problem-solving process. The second area was the importance of networking with peers. Finally, they mentioned the need to read educational journals and to do research on educational issues to stay abreast of current happenings in the educational field. These topics supported earlier research by McKay (2001), Ellis (1990), Hansen (1980), Whitaker (1995), and Diamond (1978).

Superintendent feelings of legitimacy. This area dealt with many issues linked to the superintendents' self-regulating knowledge bases. Two primary areas emerged when discussing these issues with the subjects. First was effectively dealing with stress, and second was finding a comfort level in the superintendent position. These topics supported earlier research by Breslow and Buell (1980), Swent (1983), Lyons (1990), Washington (1982), Feltz and Mugno (1983), and Saunders (1984).

Problem-solving processes. In this section, the subjects discussed the factors that they believed were important when going through the problem-solving process. While many factors were discussed, three primary factors came to the forefront when making decisions for an educational establishment. First of all, communicate with staff. Secondly, include your staff and employ shared decision-making practices. And, finally, make decisions that have the least impact on the classroom. The ideas presented by the

subjects supported earlier research by Leithwood, Steinbach, and Raun (1993), Leithwood and Steinbach (1990), and Farson (2002) on problem-solving processes.

Analysis

Demographic data and data in the four categories presented earlier were gathered initially through a long interview procedure with each of the subjects. The next step was a deductive analysis in terms of content, structure, and methodology. The final step centered on casting the emerging themes against the three types of hidden expert knowledge: informal, impressionistic, and self-regulating. This data was used to place each administrator on the novice level, post-novice level, or expert level in each individual knowledge base.

Findings

After the data from the interviews was analyzed, subjects were categorized as a novice, post-novice, or expert in each of the three areas of hidden expert knowledge: informal, impressionistic, and self-regulating. Five of the eight superintendents received a rating at more than one expertise level depending on which of the three hidden expert knowledge categories were being measured. Three superintendents, however, rated at the same level in all three categories. Each of these superintendents received expert ratings in informal, impressionistic and self-regulating knowledge.

I also found that superintendents in general possess high amounts of informal, impressionistic, and self-regulating knowledge, regardless of their years of superintendent experience. Of the eight subjects, only one fell into a novice level, and that was only in one category. Every other superintendent received at least a post-novice rating or an expert rating in all three hidden expert knowledge categories. I believe the primary reason for this was because all of the subjects had advanced degrees and many years of educational experience, even if they were new superintendents. In addition, superintendents must have a knowledge base that encompasses a vast array of district-wide processes and initiatives to be successful in the positions. These many years of experience coupled with the wide scope of duties that a superintendent must be able to perform team together to provide many opportunities to develop their hidden expert knowledge bases. Thus, with only one exception, these superintendents rated higher than novice in all three hidden expert knowledge categories.

Finally, I found that there was a link between informal and impressionistic knowledge. With only two exceptions, the subjects scored the same in the informal category as they did in the impressionistic category. Using past experiences, both life and work, as a guide is one of the primary contributors superintendents combine with formal knowledge to increase their informal knowledge base. Likewise, impressionistic knowledge is knowledge rooted in past experiences. As superintendents are able to draw impressions from their past experiences and synthesize these impressions with information from colleagues or existing literature to invent creative solutions to difficult problems, their impressionistic knowledge increase. In many cases as a subject enhances his or her informal knowledge, the subject is also likely enhancing his or her

impressionistic knowledge. This finding supports earlier research by Bereiter and Scardamalia (1993), Minsky (1980), and McCay (2001). A breakdown of the ratings is shown on Table 4.

Table 4

Subject Expertise Levels

	Informal Knowledge	Impressionistic Knowledge	Self-Regulating Knowledge
Novice Administrator		Truman	
Post-Novice Administrator	Taft Truman Kennedy Washington	Kennedy Washington	Truman McKinley
Expert Administrator	Lincoln McKinley Roosevelt Adams	Taft Lincoln McKinley Roosevelt Adams	Taft Lincoln Kennedy Washington Roosevelt Adams

Conclusions

After considering the findings of this study, some very intriguing ideas could be concluded about superintendent expertise as defined by these rural and suburban superintendents. First of all, experience with little exception, is a positive factor in determining expertise. The lowest rated superintendent in my study was the superintendent with the least amount of superintendent experience. Of the five superintendents who received at least two ratings in the expert category, only one was not in the upper tier in terms of superintendent experience.

Second, it appears that once a superintendent begins to operate as an expert, the superintendent eventually operates at this level in every category. The expert level was the only tier that had subjects who scored at the same level in each separate knowledge base. Three superintendents scored as experts in every hidden knowledge base, and two more scored as experts in two of the three knowledge bases.

Third, as Table 4 shows, there seems to be a link between informal and impressionistic knowledge. Six of the eight subjects received the same rating in the informal knowledge category as they did in the impressionistic knowledge category. Two superintendents rated as post-novice in both informal and impressionistic knowledge while four superintendents received expert ratings in both informal and impressionistic knowledge. This leads to the conclusion that the Baker/Bottoms “Characteristics of Expertise” scale may need to be edited to include only two hidden categories of expertise when dealing with superintendents. The first category would be a combination of informal/impressionistic knowledge. It would deal with contextual issues and center around the work environment. The second category would be self-regulating knowledge. This category would deal more with the individual and the individual’s ability to be in control of themselves during intense situations.

Finally, after reviewing the demographic data, it appears to me that superintendents show their potential problem-solving abilities early in their career. In every case in this study, during his or her teaching career, the subject held a leadership position in which he or she would be asked to solve problems or make decisions that were greater in difficulty than the problems that an average classroom teacher would face

on a daily basis. The superintendent is the ultimate problem-solver of an educational establishment, thus these natural problem-solvers eventually rise to that position.

Implications and Recommendations

Three goals must be met for research to gain significance: the research must have an impact on theory, knowledge base and practice. The following sections of this chapter will detail how this study met these criteria.

Theory

While administrators at all levels have a knowledge base developed from various factors such as past experiences, coursework, and board policy, Bereiter and Scardamalia (1993) describe three additional types of hidden expert knowledge: informal, impressionistic, and self-regulating. Their description of hidden expert knowledge has been useful in expanding the field of research in the area of expertise, an area that until the past 30 years has been largely ignored. This research has added to the knowledge base of theory by developing a scale comprised of Bereiter and Scardamalia's (1993) hidden expert knowledge categories. This scale was put to practical use by collecting data from eight acting superintendents with varied experience levels, reviewing the data, and placing the subjects on the appropriate category of the scale according to the level of hidden expert knowledge in which each subject was currently operating.

Future research should collect data from administrators with approximately the same amount of experience and determine their level of hidden expert knowledge on the Baker/Bottoms “Characteristics of Expertise” Scale. This would allow the researcher to subtract the experience variable from the study. If their levels differed significantly, the researcher could look into their backgrounds to attempt to determine what factors may have allowed or fostered some of the administrators to perform at higher levels than others, even though their experience levels were the same.

Research

The results of this qualitative study increased the knowledge base of determining expertise levels by documenting the content, structure, and problem-solving methodology of rural and suburban superintendents. Through review of the literature, no evidence was found to indicate that a study of this type had been previously attempted. In fact, very little research was found in the area of expertise in educational administration at all.

Future research might examine the expertise levels of superintendents from more diverse backgrounds than encompassed in this study. For instance, seven of the eight subjects in this study had been a coach. While each of these subjects had problem-solving experience before taking on a leadership role, they were basically common experiences. It would be interesting to see if superintendents who had held problem-solving positions during their teaching career, but had not coached, would score the same as this group of superintendents, who primarily had been coaches, did. Changing this variable would allow the researcher to determine what effects, if any, coaching athletics has on

developing problem-solving ability as compared to holding other advanced problem-solving positions.

Although early leadership roles, or roles in which the subject was asked to solve more difficult problems than an average teacher would be faced with were noted, specific research was not done in this area. Each subject held a role of this nature before beginning an administrative career. This leads to the question, are superintendents born problem-solvers who are naturally pre-destined to rise to the top of their profession? An interesting study would be to interview superintendents who did not hold one of these problem-solving roles (coaching, counseling, department head, etc.) before embarking on their administrative career. After the data was gathered and reviewed, these superintendents could be placed on the Baker/Bottoms "Characteristics of Expertise" Scale and their operating level of the three hidden areas of expertise could be determined. A study such as this could then be contrasted and compared with the present study to determine if superintendents who held these problem-solving roles earlier in their career became more "expert" in their superintendent role.

The subjects of this study came from rural and suburban school districts of varying sizes. Future research might choose superintendents from school districts of approximately the same size and location. This is another variable that could be controlled and might make it easier to see patterns in expertise and factors that come into play when gaining expertise.

The interviews of this study ended with a capstone question designed to bring out any important problem-solving traits that had not been previously mentioned. The question, dealing with the economic financial crisis, was a problem that every

superintendent was dealing with at the time of the study. The majority of the superintendents in this study pulled together an administrative team and employed shared decision-making practices in order to effectively solve the problem.

An interesting study would be to give superintendents two problems to solve; an external problem such as the one mentioned, and an internal hypothetical problem such as how he or she would go about revamping the high school curriculum. It would be intriguing to see if the subject went about solving both problems the same way, or if it was the crisis aspect of the financial problem that caused the subjects to employ these shared problem-solving practices.

Finally, it would be interesting to determine if the Baker/Bottoms “Characteristics of Expertise” Scale could be used with other groups. Would this scale be reliable with other groups of administrators, teachers, or even problem-solving occupations outside of education? Many studies could be done to refine this scale to use with these various groups.

Practice

From the data in the study, overall, superintendents generally possess a great deal of expertise in the areas of informal, impressionistic, and self-regulating knowledge. This knowledge is gained through many factors such as coursework, research, networking, and past experiences. This study has shown us that superintendents possess the necessary knowledge bases to succeed in their positions.

The implication that this leads me to is that superintendents who do not succeed in their positions, fail due to factors other than training or ability. These factors may include a poor mixing between school faculty and administrator leadership style or personality type. This failure could also result from an administrator not using all of the training, networking, and expertise on their staff to the best of their abilities. Oftentimes, there may be mitigating factors in the community that are beyond the superintendent's control that lead to poor experiences.

Since the superintendent's livelihood depends on how well he or she meshes with the school and community, it is imperative that an aspiring superintendent take the time to be selective when accepting a position. Too often there are good schools districts who hire good superintendent candidates, but these candidates have poor or limited success because they do not mesh well with their new school district.

Future research might look into superintendents who have left superintendent positions due to poor performance. The superintendent and the school district could be studied to determine what factors played a role in the failure of the superintendent. The superintendent could possibly be interviewed to determine his or her levels of hidden expert knowledge, and then compared with an interview of board members to determine what type of leader they were searching for. The subject might also be interviewed as to whether or not the skills, networking and expertise available within the staff had been used to its full ability. These variables could be studied to attempt to determine why superintendents fail.

Commentary

Do superintendents possess the knowledge bases needed to perform their jobs at a successful level? In Chapter One, I quoted Chi, Glaser, and Farr (1988) stating that simply because a person is highly skilled in one domain does not mean that that person can transfer the skill to another domain. The data of this study, however, does not fully support that statement. After reviewing the data, I believe that a person does have a good chance of being successful in another domain, as long as the domains are related. The data from this study suggests that they do possess the necessary knowledge to be successful. Much of the knowledge needed to be successful in the superintendent position is gained primarily through past experiences, often as teachers. How they enhance these experiences by combining them with research, networking, shared problem-solving processes or communication skills is also factors into improving performance level.

Although every superintendent in this study was not performing at an expert level in all three hidden expert knowledge categories, it is my opinion that each of these subjects had the resources and ability to eventually reach that level. I also believe that the ability to reach expert level in these categories was enhanced for these subjects, because their philosophies and values seemed to reflect the value system of their school district. In other words, they were a good “fit” for their district.

The question is, then, how do school boards find the right “fit” for their districts when looking for a new superintendent? By using today’s standards for certification, there are many qualified applicants for each superintendent position. Each of these

applicants should have teaching experience, administrative experience and an advanced degree of some type.

Obviously, some candidates may not be ready to take on the role, even though they have the necessary degree and experience. The majority of these candidates should be easily weeded out by hiring committees, allowing the pool to grow more select.

The problem is how to choose the right candidate from this select pool. As stated earlier, this study suggests that superintendents have the necessary hidden knowledge bases to be successful, yet some are less successful than others, and some even fail in their positions. The next logical step in administrative expertise research would be to find a method to help hiring committees pick the correct candidate from a pool of good candidates.

I would hope that further research in this area would look to refine the Baker/Bottoms “Characteristics of Expertise” Scale. Eventually, the goal would be to develop a list of characteristics and traits that expert administrators should possess. A hiring committee would be able to use this type of scale to help select the best possible candidate for their district.

The committee would even be able to view some expert-like traits as more important than others, depending on the needs of their school district. A school with strong teaching staffs and strong building leaders may feel that a leader with a great deal of impressionistic knowledge would be important for their school. Being able to work with others to form creative problem-solving solutions, using shared decision-making practices, and the ability to synthesize information from many people into a solution would probably be valuable aspects to this type of school district.

A school district that had been run poorly in the past may need someone to come in to revamp the system. This type of district would probably look for a different type of leader. While informal and impressionistic knowledge would still be important attributes, this hiring committee might focus on leaders with high self-regulating knowledge. A superintendent coming into the district expecting to implement change would need to have high self-regulating knowledge. It would be important that this superintendent be a strong leader, at times somewhat autocratic, be able to lead with confidence, delegate authority to the right staff members and deal with stress easily.

This research of expertise in administration has just touched the tip of the iceberg. Much more research must be done to impact hiring practices of school districts. Research must also be done to help administrators reach these levels of expertise quicker as well as learn to look for the right fit when seeking a position. Until this research is done, hiring school administrators will continue to be a guessing game for both the district and the applicant.

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State Superintendent of Public Instruction, and the State Board of Education,

Section 180.9. *Competency-based Certification – Revocation Procedures*

Oklahoma City, OK 2001.

Appendix A

Institutional Review Board Approval

**Oklahoma State University
Institutional Review Board**

Protocol Expires: 2/4/2004

Date: Wednesday, February 05, 2003

IRB Application No ED0365

Proposal Title: DECISION-MAKING EXPERTISE IN THE SCHOOL ADMINISTRATOR: A QUALITATIVE ANALYSIS

Principal
Investigator(s):Alan Baker
101 Oak Ridge
Cleveland, OK 74020Adrienne Hyle
314 Willard Hall
Stillwater, OK 74078Reviewed and
Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

Dear PI :

Your IRB application referenced above has been approved for one calendar year. Please make note of the expiration date indicated above. It is the judgment of the reviewers that the rights and welfare of individuals who may be asked to participate in this study will be respected, and that the research will be conducted in a manner consistent with the IRB requirements as outlined in section 45 CFR 46.

As Principal Investigator, it is your responsibility to do the following:

1. Conduct this study exactly as it has been approved. Any modifications to the research protocol must be submitted with the appropriate signatures for IRB approval.
2. Submit a request for continuation if the study extends beyond the approval period of one calendar year. This continuation must receive IRB review and approval before the research can continue.
3. Report any adverse events to the IRB Chair promptly. Adverse events are those which are unanticipated and impact the subjects during the course of this research; and
4. Notify the IRB office in writing when your research project is complete.

Please note that approved projects are subject to monitoring by the IRB. If you have questions about the IRB procedures or need any assistance from the Board, please contact Sharon Bacher, the Executive Secretary to the IRB, in 415 Whitehurst (phone: 405-744-5700, sbacher@okstate.edu).

Sincerely,



Carol Olson, Chair
Institutional Review Board

Appendix B

Grand Tour Questions

1. In your opinion, what characteristics do good administrators possess?
2. What is your philosophy of education?
3. What factors have shaped your decision-making process the most?
4. How do you deal with stress?
5. Money is tight everywhere. Administrators are faced with making tough decisions about personnel, money, and facilities, to name a few. This is obviously a very stressful process. Using this example, how did you go about making these decisions, and from who else did you take input from? Explain the process in as much detail as possible.

Appendix C

Telephone Script

Hello. My name is Alan Baker and I am currently enrolled at Oklahoma State University as a Doctoral candidate. I am doing research on the decision-making expertise of public school superintendents about their decision-making roles and how they go about making these decisions. I would like for you to participate in the study and can assure you that any information supplied by you will be kept confidential and the results of the interview will only be discussed as group data. No identification of individuals will be made. Can we schedule a time for an interview or do you have any questions about this study that I could answer?

Appendix D

Consent Form

INFORMED CONSENT

A. AUTHORIZATION

I, _____, HEREBY AUTHORIZE OR DIRECT Alan D. Baker to Respondent interview me in conjunction with his research on superintendent administrative expertise. This research is being conducted through OSU. The Principal Investigators are Alan D. Baker, a Doctoral student and Adrienne E. Hyle, a professor in the School of Educational Studies in the College of Education.

The purpose of this study is to explore the decision-making expertise of school administrators.

Interviews are the data collection method of choice. Each participant will be interviewed and tape-recorded during in-depth interviews. Interviews will be one session lasting a minimum of 45 minutes to a maximum of two hours. The recorded tapes of these interviews will be transcribed and both the tapes and transcriptions will be kept in a locked cabinet in a locked office. Interviews will begin with demographic questions and expand to open-ended questions dealing with educational philosophy, problem-solving methods, and administrator expertise indicators. These questions are designed to illicit responses that can be coded and placed on an expertise scale designed for this study. Interview questions will be used to extract the hidden levels of expert knowledge as defined by Bereiter and Scardamalia (1993) and modified for the study by Alan Baker and Keith Bottoms. The calendar time for collecting the data is approximately four months.

All information gathered will be kept in a locked office and locked cabinet. I, Alan D. Baker, will have the key. My advisor, Dr. Adrienne Hyle, will keep drafts of the thesis in a locked file cabinet. Files will be stored separately from any identifiers. Files will be shredded upon completion of the project. Any computer information will be stored with password protection and will be deleted upon completion of the project. No risks to participants are anticipated

This research provides insight into the decision-making skills of administrators from the view of the hidden areas of expertise. Additionally, this study gives selected administrators the opportunity to reflect about acquired expertise skills. The information in this study will be valuable to research, practice and theory. The possibilities for this study include raising the self-esteem of administrators and improving their ability to reframe their self-awareness in their administrative job duties.

For questions about the research, please contact:

Adrienne E. Hyle, Professor and Department Head
Oklahoma State University
106 Willard Hall
Stillwater, OK 74078 Phone: 405-744-9893

Alan D. Baker, Doctoral Student
101 Oak Ridge Drive
Cleveland, OK 74020 Phone: 918-358-1108

Sharon Bacher, IRB Executive Secretary,
Oklahoma State University
415 Whitehurst
Stillwater, OK 74078 Phone: 405-744-5700

I understand that participation is voluntary and that I will not be penalized if I choose not to participate. I also understand that I am free to withdraw my consent and end my participation in this project at any time without penalty after I notify the project director, Adrienne Hyle, at the address or phone number noted above.

I have read and full understand the consent form. I sign it freely and voluntarily. A copy has been given to me.

DATE: _____ Time: _____ (a.m./p.m.)

Name: _____ Signature: _____

I certify that I have personally explained all elements of this form to the subject before requesting the subject to sign it.

Signature: _____

Alan D. Baker

Appendix E

Secondary Questionnaire

August 4, 2003

Mr(s), _____

I wanted to write and express my appreciation for your help in allowing me to interview you for my dissertation. I have been analyzing data, and I think I am on track to get a great deal of this written up soon. I hope to finish and defend in the Fall, with a Christmas graduation.

In going through the transcriptions of the interviews, I did have some confusion at times, especially in the area concerning years of experience. If you would, please take a few moments to answer the following questions for me again, so that I can be sure the information I have is accurate.

1. How many years did you spend in the following fields?
 Teaching Total _____
 Administration Total _____
 Superintendent Total _____
2. If you coached or were a school counselor, how many of these years did you also occupy that assignment? _____
3. Approximately how many students are in your school district, K-12, and what class is your school district? _____
4. What is your highest degree held? _____

Thank you again for the time you spent in this project. If any of the answers need further explanation, feel free to use the back of the questionnaire. I have enclosed a self-addressed stamped envelope and I look forward to your response to these questions. If you have any questions or concerns, please feel free to call me at 918-358-1108 (H) or 918-358-2525 (W).

Sincerely,

Alan D. Baker
 Cleveland H.S. Principal



VITA

Alan Dale Baker

Candidate for the Degree of

Doctor of Education

Thesis: PROBLEM-SOLVING EXPERTISE IN THE SCHOOL SUPERINTENDENT:
A QUALITATIVE ANALYSIS

Major Field: Educational Administration

Biographical:

Personal Data: Born in Bartlesville, Oklahoma, on October 21, 1967, the son of Bob and Dorthea Baker.

Education: Graduated from Barnsdall High School, Barnsdall, Oklahoma, 1985; received Bachelor of Science in Science Education degree from Northeastern State University, Tahlequah, Oklahoma, 1991; completed the requirements for the Master of Education degree Northeastern State University, Tahlequah, Oklahoma, 1993; completed the requirements of the Specialist in Education degree from Oklahoma State University, Stillwater, Oklahoma, 1997. Completed the Requirements for the Doctor of Education degree at Oklahoma State University in December 2003.

Experience: Taught high school Chemistry, Advanced Placement Chemistry and Physics at Wagoner High School in Wagoner Oklahoma. During this time, coached 9th Grade Football, 9th Grade Basketball and High School Girls' Soccer; practiced as an Assistant Principal/Athletic Director at Cleveland High School in Cleveland, Oklahoma; currently High School Principal of Cleveland High School in Cleveland Oklahoma.

Professional Organizations: Administrators, Oklahoma Association of Secondary School Principals, National Association of Secondary School Principals, Kappa Delta Pi